

# **PERMIT GVA0205**

#### **Pursuant to:**

Greater Vancouver Regional District Air Quality Management Bylaw No. 1082, 2008 and the BC Environmental Management Act, S.B.C 2003, c.53

## **Issued to:**

Pacific Coast Terminals Co. Ltd. (the "Permittee")

## **To Authorize:**

the discharge of air contaminants to the air from a bulk commodities transshipment facility

#### Located at:

2300 Columbia Street, Port Moody, BC V3H 5J9

### **Effective Period:**

The terms and conditions set out in the Permit apply to the existing or planned works as of May 17, 2017 and this permit will expire on May 17, 2032.

All previous versions of this Permit are hereby rescinded and rendered null and void.

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May 17, 2017

R.H. (Ray) Robb, P. Eng.

**District Director** 

### SECTION 1 – AUTHORIZED EMISSION SOURCES

Authorization to discharge air contaminants from the authorized Emission Sources and Works listed below is subject to the specified terms and conditions.

Approximate locations of the emission sources are shown on the Site Plan in section 4.

<u>EMISSION SOURCE 15</u>: Sulphur stock-piling and reclaiming discharging from sulphur storage areas and transfer points.

MAXIMUM EMISSION FLOW RATE: The authorized rate of discharge is that resulting from the stacking and reclaiming operations as well as stock-pile wind erosion effects

MAXIMUM ANNUAL OPERATING HOURS: 8760 h/y

#### MAXIMUM EMISSION QUALITY:

1. 20% Opacity.

#### WORKS AND PROCEDURES:

Water sprays, dust suppression system and related appurtenances together with good operating practices.

MAXIMUM DAILY THROUGHPUT OF SULPHUR: 84,000 tonnes/day MAXIMUM ANNUAL THROUGHPUT OF SULPHUR: 9,000,000 tonnes/year

EMISSION SOURCE 18: The loading of marine vessels with sulphur or potash discharging from vessels holds at Berth II.

MAXIMUM EMISSION FLOW RATE: The authorized rate of discharge is that resulting from the loading operations as well as displacement air from the ship's holds MAXIMUM ANNUAL OPERATING HOURS: 8760 h/y

#### MAXIMUM EMISSION QUALITY:

1. 20% Opacity.

#### WORKS AND PROCEDURES:

When loading sulphur: Water sprays, dust suppression system and related appurtenances together with good operating practices.

When loading potash: One telescopic Cleveland Cascade chute along with good operating practices.

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MAXIMUM DAILY THROUGHPUT OF SULPHUR: 120,000 tonnes/day MAXIMUM ANNUAL THROUGHPUT OF SULPHUR: 9,000,000 tonnes/year

MAXIMUM DAILY THROUGHPUT OF POTASH: 120,000 tonnes/day MAXIMUM ANNUAL THROUGHPUT OF POTASH: 3,000,000 tonnes/year

EMISSION SOURCE 21: All conveyors & transfer points handling sulphur discharging from conveyor transfer areas located throughout the terminal.

MAXIMUM EMISSION FLOW RATE: The authorized rate of discharge is that resulting from conveying and transfer operations

MAXIMUM ANNUAL OPERATING HOURS: 8760 h/y

#### MAXIMUM EMISSION QUALITY:

20% Opacity.

#### **WORKS AND PROCEDURES:**

Water sprays and the foam dust suppression system for sulphur handling together with good operating practices.

MAXIMUM DAILY THROUGHPUT OF SULPHUR: 120,000 tonnes/day MAXIMUM ANNUAL THROUGHPUT OF SULPHUR: 9,000,000 tonnes/year

EMISSION SOURCE 22: Two 7,000 tonne and four 10,000 tonne Ethylene Glycol storage tanks discharging through tank vents.

MAXIMUM EMISSION FLOW RATE: The authorized rate of discharge is that resulting from vapour venting during tank filling and breathing

MAXIMUM ANNUAL OPERATING HOURS: 8760 h/y

#### MAXIMUM EMISSION QUANTITY:

1. 0.761 t/y Ethylene Glycol

#### MAXIMUM EMISSION QUALITY:

1. 625 mg/m<sup>3</sup> Ethylene Glycol

#### WORKS AND PROCEDURES:

The existing 2 (7,000 tonne) and 4 (10,000 tonne) ethylene glycol storage tanks together with good operating practices.

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EMISSION SOURCE 23: Loading marine tankers with Ethylene Glycol discharging through ship's hold vents.

MAXIMUM EMISSION FLOW RATE: 14.5 m³/min MAXIMUM ANNUAL OPERATING HOURS: 1350 h/y

**MAXIMUM EMISSION QUALITY:** 

1. 625 mg/m<sup>3</sup> Ethylene Glycol

WORKS AND PROCEDURES: Good operating practices.

EMISSION SOURCE 26: Ventilation of the rotary sulphur railcar dumper complex discharging through scrubber exhaust.

MAXIMUM EMISSION FLOW RATE: 1600 m³/min MAXIMUM ANNUAL OPERATING HOURS: 8760 h/y

#### **MAXIMUM EMISSION QUALITY:**

- 1. 20 mg/m³ Particulate Matter
- 2. 20% Opacity.

**WORKS AND PROCEDURES:** 

Wet scrubbers No. 1 and No. 2 and related appurtenances.

Stack height above ground level: 9.0 m

Diameter at stack top: 1.20 m Orientation of stacks: vertical up Presence of raincap/weather hoods: no

EMISSION SOURCE 28: Rotary sulphur railcar dumper complex fugitive sources discharging through railcar entrance and exit.

MAXIMUM EMISSION FLOW RATE: The authorized rate of discharge is that resulting from the rotary railcar dumper operation

MAXIMUM ANNUAL OPERATING HOURS: 8760 h/y

MAXIMUM EMISSION QUALITY:

1. 20% Opacity.

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WORKS AND PROCEDURES:

Water curtain sprays and good operating practices.

MAXIMUM DAILY THROUGHPUT OF SULPHUR: 120,000 tonnes/day MAXIMUM ANNUAL THROUGHPUT OF SULPHUR: 9,000,000 tonnes/year

EMISSION SOURCE 31: Potash railcar unloading building and associated hoppers unloading onto conveyor C41 and underground conveyor C41/C42 transfer point, C42 conveyor discharging through a Baghouse Exhaust(s).

MAXIMUM EMISSION FLOW RATE: **366.6** m³/min MAXIMUM ANNUAL OPERATING HOURS: **2850** h/y

### MAXIMUM EMISSION QUALITY:

1. 20 mg/m<sup>3</sup> Particulate Matter

#### WORKS AND PROCEDURES:

One GEA Air Treatment KJF 1500/18-54 baghouse and related appurtenances together with good operating practices.

Stack height above ground level: 7.5 m

Diameter at stack top: 0.71 m Orientation of stacks: vertical up Presence of raincap/weather hoods: no

EMISSION SOURCE 34: Potash conveyors C42, C43, C54, C89 and associated transfer points connected to transfer tower T-42 discharging through a Baghouse Exhaust(s).

MAXIMUM EMISSION FLOW RATE: **244.8** m³/min MAXIMUM ANNUAL OPERATING HOURS: **7100** h/y

### MAXIMUM EMISSION QUALITY:

1. 20 mg/m³ Particulate Matter

#### WORKS AND PROCEDURES:

One GEA Air Treatment KJF 1500/18-36 baghouse and related appurtenances together with good operating practices.

Stack height above ground level: 7.3 m

Diameter at stack top: 0.61 m

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Orientation of stacks: vertical up Presence of raincap/weather hoods: no

<u>EMISSION SOURCE 35</u>: Potash conveyors C43, C44, C45 and associated transfer points connected to transfer tower T-43 discharging through a Baghouse Exhaust(s).

MAXIMUM EMISSION FLOW RATE: 163.2 m<sup>3</sup>/min MAXIMUM ANNUAL OPERATING HOURS: 2850 h/y

## MAXIMUM EMISSION QUALITY:

1. 20 mg/m³ Particulate Matter

#### **WORKS AND PROCEDURES:**

One GEA Air Treatment KJF 1500/18-24 baghouse and related appurtenances together with good operating practices.

Stack height above ground level: 7.3 m

Diameter at stack top: 0.51 m Orientation of stacks: vertical up

Presence of raincap/weather hoods: no

EMISSION SOURCE 36: Enclosed potash storage building, land side reversible conveyor C51, conveyors C44, C53 and associated transfer points connected to transfer tower T-44 discharging through a Baghouse Exhaust(s).

MAXIMUM EMISSION FLOW RATE: **81.6** m³/min MAXIMUM ANNUAL OPERATING HOURS: **7100** h/y

#### MAXIMUM EMISSION QUALITY:

1. 20 mg/m³ Particulate Matter

#### **WORKS AND PROCEDURES:**

One GEA Air Treatment KJF 1500/18-12 baghouse and related appurtenances together with good operating practices.

Stack height above ground level: 7.15 m

Diameter at stack top: 0.4 m Orientation of stacks: vertical up

Presence of raincap/weather hoods: no

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EMISSION SOURCE 37: Enclosed potash storage building, shore side reversible conveyor C52, conveyors C45, C53, C54 and associated transfer points connected to transfer tower T-45 and T-53 discharging through a Baghouse Exhaust(s).

MAXIMUM EMISSION FLOW RATE: **244.8** m³/min MAXIMUM ANNUAL OPERATING HOURS: **7100** h/y

#### **MAXIMUM EMISSION QUALITY:**

1. 20 mg/m³ Particulate Matter

#### **WORKS AND PROCEDURES:**

One GEA Air Treatment KJF 1500/18-36 baghouse and related appurtenances together with good operating practices.

Stack height above ground level: 8.3 m

Diameter at stack top: 0.61 m Orientation of stacks: vertical up

Presence of raincap/weather hoods: no

EMISSION SOURCE 38: Ship loader feeding conveyers (C89, C90) and related transfer points discharging through a Baghouse Exhaust(s).

MAXIMUM EMISSION FLOW RATE: 133.2 m³/min MAXIMUM ANNUAL OPERATING HOURS: 4250 h/y

#### MAXIMUM EMISSION QUALITY:

1. 20 mg/m³ Particulate Matter

### **WORKS AND PROCEDURES:**

One GEA Air Treatment KJF 1500/18-18 baghouse and related appurtenances together with good operating practices.

Stack height above ground level: 22.0 m

Diameter at stack top: 0.4 m Orientation of stacks: vertical up

Presence of raincap/weather hoods: no

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EMISSION SOURCE 39: Ship loader discharge conveyers (C90) and related transfer points, telescopic cascade chute discharging through a Baghouse Exhaust(s).

MAXIMUM EMISSION FLOW RATE: **66.6** m³/min MAXIMUM ANNUAL OPERATING HOURS: **4250** h/y

#### MAXIMUM EMISSION QUALITY:

1. 20 mg/m³ Particulate Matter

#### **WORKS AND PROCEDURES:**

One telescopic Cleveland Cascade chute and one GEA Air Treatment KJF 1200/20-16 baghouse and related appurtenances together with good operating practices.

Stack height above ground level: 27.0 m

Diameter at stack top: 0.28 m Orientation of stacks: vertical up

Presence of raincap/weather hoods: no

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## SECTION 2 – GENERAL REQUIREMENTS AND CONDITIONS

#### A. AUTHORIZED WORKS, PROCEDURES AND SOURCES

Works and procedures, which this permit authorizes in order to control the discharge of air contaminants, shall be employed during all operating periods of the related sources. The Permittee shall regularly inspect and maintain all such works, procedures and sources.

The District Director must be provided with reasonable notice of any changes to or replacement of authorized works, procedures or sources. Any modification of authorized works, procedures or sources must be approved by the District Director in advance of operation. For certainty, this does not include routine maintenance or repair.

The discharge criteria described in Section 1 of this permit are applicable on the issued or last amended date of this permit unless specified otherwise. If a date different to the issued or last amended date is specified, the existing works, procedures and sources must be maintained in good operating condition and operated in a manner to minimize emissions.

## **B. NOTIFICATION OF MONITORING NON-COMPLIANCE**

The District Director must be notified immediately of any emission monitoring results, whether from a continuous emissions monitor or periodic testing, which exceed the quantity or quality authorized in Section 1 of this permit. Notification shall be made to Metro Vancouver's 24-hour number: 604-436-6777, or to regulationenforcement@metrovancouver.org.

#### C. POLLUTION NOT PERMITTED

Notwithstanding any conditions in this permit, no person shall discharge or allow or cause the discharge of any air contaminant so as to cause pollution as defined in the Greater Vancouver Regional District Air Quality Management Bylaw No. 1082, 2008 and the Environmental Management Act.

#### D. BYPASSES

The discharge of air contaminants that have bypassed authorized control works is prohibited unless advance approval has been obtained and confirmed in writing from the District Director.

#### **E. EMERGENCY PROCEDURES**

In the event of an emergency or condition beyond the control of the Permittee that prevents effective operation of the authorized works or procedures or leads to unauthorized discharge, the Permittee shall:

- 1. Comply with all applicable statutory requirements;
- 2. Immediately notify the District Director of the emergency or condition and of contingency actions invoked or planned to mitigate adverse impacts and restore compliance; Notification shall be made to Metro Vancouver's 24-hour number: 604-436-6777; and

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3. Take appropriate remedial action for the prevention or mitigation of pollution.

The District Director may specify contingency actions to be implemented to protect human health and the environment while authorized works are being restored and/or corrective actions are being taken to prevent unauthorized discharges.

If an emergency situation results in a "spill" as defined in the Environmental Management Act Spill Reporting Regulation, the spill shall also be reported immediately to the Provincial Emergency Program by telephoning 1-800-663-3456.

#### F. AMENDMENTS

The terms and conditions of this permit may be amended, as authorized by applicable legislation. New works, procedures or sources or alterations to existing works, procedures or sources must receive authorization in advance of operation.

#### G. CONDITIONAL PERMIT EXTENSION

If:

- at least 12 months and no more than 24 months before the expiry date of this permit, the Permittee submits an application for authorization to discharge air contaminants from the works and sources authorized in this permit; and
- the application is complete, including that the Permittee has complied with all applicable requirements in the Public Notification Regulation, and that it contains all information and studies the District Director considers relevant to the application; and
- the District Director has not made a decision in respect of the completed application by the expiry date specified on page 1 of this permit,

then the expiry date specified on page 1 of this permit is extended to the date the District Director makes a decision in respect of the completed application.

It is a condition of the extension that during the period of extension, the discharge of air contaminants is conducted strictly in accordance with all other terms and conditions in this permit, the Greater Vancouver Regional District Air Quality Management Bylaw No. 1082, 2008 (as amended or replaced) and the Environmental Management Act. This permit shall be invalid and of no force and effect immediately on and after the date the District Director makes a decision in respect of the completed application, or on May 17, 2033, whichever occurs sooner.

#### H. STANDARD CONDITIONS AND DEFINITIONS

Unless otherwise specified, the following applies to this permit:

- 1. Gaseous volumes are corrected to standard conditions of 20 degrees Celsius (°C) and 101.325 kilo Pascals (kPa) with zero percent moisture.
- 2. Contaminant concentrations from the combustion of specific fuel types are corrected to the following Oxygen content, unless specified otherwise:

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- 3% O<sub>2</sub> for natural gas and fuel oil; or
- 8% O<sub>2</sub> for wood fuel
- 3. Where compliance testing is required, each contaminant concentration limit in this permit will be assessed for compliance based on a valid test using test methods approved by the District Director.
- 4. Visual opacity measurements are made at the point of maximum density, nearest the discharge point and exclude the effect of condensed, uncombined water droplets. Compliance determinations are based on a six-minute average in accordance with the United States Environmental Protection Agency (US EPA) Method 9: Visual Determination of the Opacity of Emissions from Stationary Sources. Continuous Emission Monitor System (CEMS) opacity compliance determinations are based on a one-hour average (taken from the top of each hour).
- 5. If authorized in Section 1 of this permit, standby fuel use is restricted to a maximum of 350 hours per year and to those periods during which the primary authorized fuel is not available. Fuel oil sulphur content shall not exceed 15 milligrams per kilogram (mg/kg) and emissions during fuel oil firing shall not exceed 10% opacity.
- 6. Definitions in the Environmental Management Act and Air Quality Management Bylaw apply to terminology used in this permit.
- 7. Threshold Limit Values (TLV) refer to the Time Weighted Average (TWA) exposure limits for substances specified in the American Conference of Governmental Industrial Hygienists Threshold Limit Values handbook, current on the latest date that this permit issuance or amendment came into effect.
- 8. Sulphur Oxides (SO<sub>x</sub>) are expressed as Sulphur Dioxide.
- 9. Nitrogen Oxides (NO<sub>x</sub>) are expressed as Nitrogen Dioxide.
- 10. The Canadian Council of Ministers of the Environment (CCME) "Environmental Guidelines for Controlling Emissions of Volatile Organic Compounds from Aboveground Storage Tanks (June 1995, CCME-EPC-87E)" shall be adhered to for all applicable tanks unless otherwise stated in this permit.
- 11. Authorized 'Maximum Annual Operating Hours' of 8760 hours per year for an emission source is equivalent to authorization for continuous operation of the emission source for an entire calendar year, including leap years.

#### I. RECORDS RETENTION

All records and supporting documentation relating to this permit must be kept for at least three years after the date of preparation or receipt thereof, and be made available for inspection within 48 hours of a request by an Officer.

### J. HEATING, VENTILATION, AIR CONDITIONING AND INTERNAL COMBUSTION ENGINES

Air contaminants discharged from any natural gas-fired heating, ventilation or air conditioning system for buildings and any internal combustion engine located at the discharge site shall be maintained and operated in a manner prescribed by the manufacturer to ensure good combustion of the fuel with minimum discharge of air contaminants.

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## **SECTION 3 – REPORTING REQUIREMENTS**

#### A. MONITORING REQUIREMENTS AND REPORTING

Unless otherwise approved by the District Director prior to any sampling or analysis, all measurements shall be performed by an independent agency in accordance with Metro Vancouver Air Emissions Sampling Program Manual of Methods and Standard Operating Procedures and the BC Ministry of Environment Field Sampling Manual, as they may be amended from time to time. Any variance from these procedures must receive prior approval from the District Director.

A minimum of 5 working days advance notice must be given prior to taking measurements required by this Monitoring and Sampling Program. Notification must be given to the Metro Vancouver Environmental Regulation & Enforcement Division (phone 604-436-6777, Fax 604-436-6707, email regulationenforcement@metrovancouver.org).

Unless otherwise specified, sampling shall be performed under operating conditions representative of the previous 90 calendar days of operation. All field data and calculations must be submitted with monitoring results and they shall be reported in the metric units which are used in this permit. These submissions shall include process data relevant to the operation of the source of the emissions and the performance of the emission control works.

The Permittee shall conduct the following monitoring and sampling and submit electronic reports of the results to the District Director by the dates specified below using a password enabled web based application provided by Metro Vancouver.

EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	PARAMETER(S)	TEST METHOD	REPORT TYPE
26, 39, 38	March 31, 2018	On or before March 31 for	Written report detailing the measured	Particulate	Those approved	Stack
		each subsequent year.	discharge rate and concentration of	Matter	by Metro	
			Particulate Matter in the emissions. One		Vancouver	

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EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	PARAMETER(S)	TEST METHOD	REPORT TYPE
			to be sampled annually on a rotating schedule such that each is sampled once every three years.			
Facility	March 31, 2018	On or before March 31 for each subsequent year, ending March 31, 2021.	Written report, in a format approved by the District Director, analyzing the PM <sub>2.5</sub> and PM <sub>10</sub> measurements for the preceding calendar year of the approved ambient air quality monitoring station. The report should compare measurements to Metro Vancouver 24-hour rolling and annual average ambient objectives for PM <sub>2.5</sub> and PM <sub>10</sub> in both tables and figures. The report should also include graphical data analysis in the form of wind roses, pollutant roses, multi-year trends analyses, etc. The frequency of exceedance of Metro Vancouver objectives should be discussed. Results of investigations into observed exceedances of Metro Vancouver's ambient objectives for 24-hour rolling average PM <sub>2.5</sub> and PM <sub>10</sub> should be summarized. Exceedances that on the balance of probability the Facility contributed to, should be further	Particulate Matter	Those approved by the District Director	Monitoring - Other

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EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	PARAMETER(S)	TEST METHOD	REPORT TYPE
			analysed for common factors (e.g., product loaded, moisture content of product, wind speed, wind direction).	-		
Facility	October 31, 2017	Quarterly, on or before April 30, July 31, October 31 and January 31 of each year, ending January 31, 2021.	Written report, in a format approved by the District Director, summarizing the 24-hour rolling average PM <sub>2.5</sub> and PM <sub>10</sub> observations from the approved ambient air quality monitoring station for the previous calendar quarter. If exceedances of Metro Vancouver's 24-hour rolling average ambient objectives are observed, the following must be provided for the period of the exceedance:  -hours when loading, product loaded and moisture content -hourly PM <sub>2.5</sub> concentrations, PM <sub>10</sub> concentrations, wind speed and direction at the air quality monitoring station -concurrent ambient concentrations observed at Metro Vancouver monitoring station T9 (Port Moody) an assessment of the Permittee's contribution to the observed	Particulate Matter	Those approved by the District Director	Monitoring - Other

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EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	PARAMETER(S)	TEST METHOD	REPORT TYPE
			exceedances. Until such time as the approved air quality and meteorological monitoring equipment has been installed, this report can consist of an update on progress to implement the approved ambient air quality monitoring program.			

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## **B. INFORMATION REPORTING REQUIREMENTS**

The Permittee shall submit electronic reports containing the required information to the District Director by the dates specified below using a password enabled web based application provided by Metro Vancouver.

EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	REPORT TYPE
Facility	March 31, 2018	On or before March 31 for each subsequent year.	Written report detailing the types and amounts of principal products produced and principal raw materials used in the preceding calendar year.	Materials and Products
15, 18, 21, 22, 23, 26, 28, 31, 34, 35, 36, 37, 38, 39	March 31, 2018	On or before March 31 for each subsequent year.	Written report providing details of the total number of hours and days operated in the preceding calendar year. Detailed records are to be maintained in a written bound log or other format approved by the District Director and made available for inspection by Metro Vancouver staff for a minimum period of three years.	Operating Period
Facility	July 31, 2017	On or before July 31 for each subsequent year.	Written report summarizing all complaints regarding air emissions received directly by the Permittee for the previous calendar year from individuals in the neighbouring community. All complaints shall be anonymized and submitted along with a summary of any follow-up actions taken or proposed, including lab analysis reports of any collected sample material and analysis of ambient air quality monitoring data.	Information - Other
26	March 31, 2018	On or before March 31 for each subsequent year.	Written report summarizing frequency and results of all inspections and maintenance carried out on the scrubber(s). The report shall also include any actions, taken or proposed, to solve identified problems.	Scrubber

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EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	REPORT TYPE
Facility	March 31, 2018	On or before March 31 for each subsequent year.	Written report, referred to as the Fugitive Dust Mitigation Action Plan (FDMAP), assessing plant site fugitive particulate emission sources and actions to minimize the release of fugitive dust emissions at the facility, with particular focus on ship loading.  The plan should include but not be limited to: opacity measurement surveys by trained and certified staff, potential to make use of real-time ambient monitoring results to modify operations, actions taken or trialled in the past year to reduce fugitive particulate matter emissions, mitigation actions planned for the upcoming year and a complaint response plan. Any follow-up measures taken at the facility in response to observations of visible dust or	Information - Other
			elevated particulate matter concentrations in the nearby residential area should be documented.  Following the first year of particulate matter (PM) data collection from the monitoring station installed in the neighborhood adjacent to PCT above Barnet Highway, the plan should include an analysis and comparison to the 24-hour averaging periods of Metro Vancouver Ambient Air Quality Objectives (AAQO). Should increases between background concentrations and AAQO attributable to PCT be identified, PCT will consider developing an internal standard to alert operators of possibly elevated particulate monitoring readings. To establish this standard, key variables including wind speed and direction will be considered.  Ultimately, the internal standard could be developed and conveyed in an efficient manner to inform shiploader operators to employ practical options to	

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EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	REPORT TYPE
			help mitigate possible elevated PM emissions associated with potash shiploading. These include but are not limited to:  • Adjusting spout/cascade chute to a different position within the ships hold;  • Adjusting loading rate; and  • Other temporary measures as\when needed.  Any changes to the plan to minimize fugitive emissions shall be documented and be subject to review by the District Director to determine whether additional actions and procedures are necessary for the protection of human health and the environment.	
Facility	June 30, 2030	N/A	Written report summarizing the results of a fugitive dust control technology assessment for marine loading operations.  Terms of reference for the assessment must be submitted to the District Director for review and approval by January 30, 2030 and must include:  -Control technologies or equipment for fugitive dust collection and recovery -Information on the feasibility of implementation including approximate costs -Results of any control technology trials to reduce fugitive dust from marine loading operations.	Information - Other
Facility	July 31, 2017	N/A	Submit for approval by the District Director a written proposal for an ambient air quality monitoring program at one location in the residential	Information - Other

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EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	REPORT TYPE
			neighbourhood within the area of exceedance of Metro Vancouver's ambient objectives for PM <sub>10</sub> predicted for the Scenario 1 (as referenced in Refined Air Dispersion Modelling Report prepared by Envirochem Services Inc. dated March 20, 2017). The monitoring station is to include: analyzers for continuous PM <sub>2.5</sub> and PM <sub>10</sub> and meteorological instrumentation for wind speed and direction.  The plan should include a section on the proposed quality assurance program. Factors to consider include the use of Federal Equivalent Method (FEM) or comparable monitoring equipment and the US EPA guidance documents for air pollution measurement systems.	
Facility	July 31, 2017	Quarterly, on or before April 30, July 31, October 31 and January 31 of each year.	Written report summarizing the daily loading rates in tonnes per day and materials loaded for each source for the preceding calendar quarter. Detailed records are to be maintained in a format approved by the District Director and made available for inspection by Metro Vancouver staff for a minimum period of three years.	Information - Other
31, 34, 35, 36, 37, 38, 39	March 31, 2018	On or before March 31 for each subsequent year.	Written report due indicating baghouse inspection frequency, baghouse condition and action taken or proposed to solve any problems detected.	Baghouse
Facility	March 31, 2019	N/A	Written report summarizing moisture content (in %) for each load of potash shipped from the facility for the period between the effective date on the face page of this Permit until December 31, 2018 in a format approved by the District Director.	Information - Other

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## C. AMENDED OR ADDITIONAL REQUIREMENTS

Based on the results of the monitoring program, including the stack sampling results or any other information, the District Director may:

- 1. Amend the monitoring and reporting requirement of any of the information required by this Permit including plans, programs and studies.
- 2. Require additional investigations, tests, surveys or studies.

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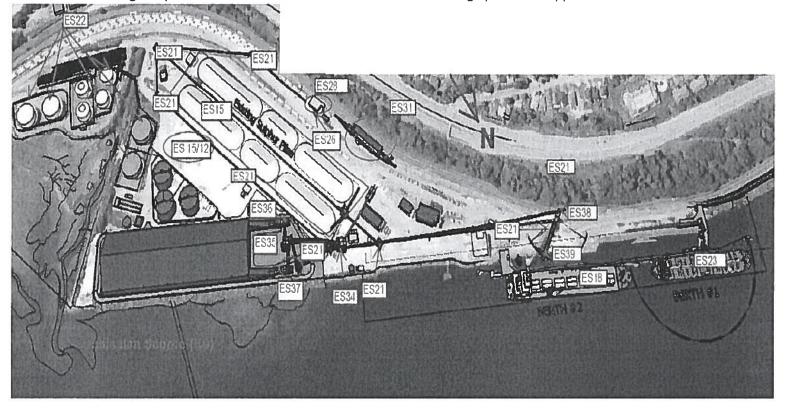
R.H. (Ray) Robb, P. Eng.

**District Director** 

### **SECTION 4 – SITE PLAN**

LEGAL DESCRIPTION OF DISCHARGE SITE: The land from which the air contaminants are discharged is described as "The leased portions shown on Reference Plan 66419 of Portion of Block "A" of Lot 202 (Plan 6435), (heavy outlined), and Portion of all those Portions (containing together 16.685 acres more or less) of Lot 203, as shown coloured red on map 190, (hatched) Group 1 New Westminster District, to accompany lease pursuant to Section 99(1)(k) Land Title Act and a Portion of the foreshore and bed of Burrard Inlet fronting on a portion of District Lots 202 and 203, Group 1, New Westminster District (Vancouver Port Corporation Leases 4083[2] and 4083[3])."

The following site plan is not to scale and the locations of the discharge points are approximate.



Issued:

November 30, 1992

Amended:

May 17, 2017

R.H. (Ray) Robb, P. Eng. District Director