

WASTE DISCHARGE PERMIT NO. SC-100085-FSA

Pursuant to:

Greater Vancouver Sewerage & Drainage District Sewer Use Bylaw No. 299, 2007 (as amended) 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 Wastewater to Sewer 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 on March 31, 2017

All previous versions of this Waste Discharge Permit are hereby rescinded and rendered null and void.

Issued: Amended:

July 15, 1992 March 31, 2017

Grant McGillivray Deputy Sewage Control Manager

SCHEDULE A

This Schedule sets out requirements for the quantity and quality of the discharge to Sewer.

1. AUTHORIZED RATE OF DISCHARGE

The Permittee shall not exceed the following:

Sample Point: 1

- Maximum daily discharge flow rate: 3888.00 m³/d
- Maximum instantaneous peak flow rate: 45.00 L/s
- Discharge curtailment shall be conducted in accordance with the Memorandum of Understanding between Pacific Coast Terminals Co. Ltd. and the Greater Vancouver Sewerage and Drainage District signed June 26, 2003 and any subsequent amendments or replacements.

2. AUTHORIZED DISCHARGE CRITERIA

a) The Permittee shall not discharge Restricted Waste or other Waste, as defined in the Bylaw, including but not limited to the following (regardless of sample type):

Parameter	Authorized Limit	Notes
pH	5.5 - 10.5 pH Units	
Total Suspended Solids	600 mg/L	
Oil & Grease Hydrocarbon	15 mg/L	
Total Oil & Grease	150 mg/L	
Sulphide	1 mg/L	
Aluminum - total	50 mg/L	
Arsenic - total	1 mg/L	
Boron - total	50 mg/L	
Cadmium - total	0.2 mg/L	
Chromium - total	4 mg/L	
Cobalt - total	5 mg/L	
Copper - total	2 mg/L	
Lead - total	1 mg/L	
Manganese - total	5 mg/L	
Molybdenum - total	1 mg/L	
Nickel - total	2 mg/L	
Selenium - total	1 mg/L	
Silver - total	1 mg/L	
Zinc - total	3 mg/L	

Issued: Amended:

July 15, 1992 March 31, 2017

Grant McGillivray

Deputy Sewage Control Manager

SCHEDULE A

b) The Permittee shall not discharge Restricted Waste or other Waste, as defined in the Bylaw, with the following exceptions (regardless of sample type):

Parameter	Authorized Limit	Notes
Biochemical Oxygen Demand	No Limit	11
Sulphate	1300 mg/L	
Iron - total	40 mg/L	

- c) The Permittee shall not discharge Prohibited Waste, Storm Water or Uncontaminated Water, as defined in the bylaw with the exception of contaminated storm water collected through the handling and storage of sulphur and potash and contaminated storm water collected through the storage tank containment areas.
- d) The Permittee shall not discharge Hazardous Waste, or effluent from the treatment of Hazardous Waste which exceeds the Effluent Standards for Hazardous Waste Facilities, as stipulated in Schedule 1.2, Column 3, of the BC Environmental Management Act Hazardous Waste Regulation.

Issued: July 15, 1992 Amended: March 31, 2017

Waste Discharge Permit No. SC-100085-FSA

Grant McGillivray

SCHEDULE B

This Schedule sets out requirements and locations for the approved sample points, waste sources, and works and procedures to treat and/or control the discharges to Sewer.

1. SAMPLE POINTS, WASTE SOURCES, WORKS & PROCEDURES

SAMPLE POINT: 1

This sample point is considered to be a point of discharge to Sewer. The approved sample point location is described and is illustrated in the photo(s) below.

Description: The Recycled Water Building downstream of the Sulphur Wastewater Treatment Plant and the combined Potash/Sulphur Wastewater Treatment Plant. (After May 1, 2017) The Recycled Water Building downstream of all treatment processes. (Until April 30, 2017)

Source: All Sources

Comingled treated wastewater downstream of the Sulphur Wastewater Treatment Plant and the combined Potash/Sulphur Wastewater Treatment Plant

Type: Continuous

Works and Procedures	Completion Date
Remote Terminal Unit (RTU)	Completed
Good operating practices	Completed

Source: Maintenance Shop

Pre-treated maintenance shop wastewater

Type: Continuous

Works and Procedures	Completion Date
Oil water separator	Completed
Waste oil storage tank	Completed
Good operating practices	Completed

lssued: July 15, 1992 Amended: March 31, 2017

Waste Discharge Permit No. SC-100085-FSA

Grant McGillivray

SCHEDULE B

Source: Potash and Sulphur Handling Sources

Contaminated storm water and washdown water collected through the handling and storage of potash and sulphur

Type: Continuous

Works and Procedures	Completion Date
Continuous flow monitoring and recording	May 31, 2017
Continuous pH adjustment	May 31, 2017
Continuous pH monitoring and recording	May 31, 2017
Buffer tank	Completed
Primary settling basin and screens	Completed
Oil skimmers	May 31, 2017
Good operating practices	Completed

Source: Sulphur Handling Sources

Contaminated storm water and washdown water collected through the handling and storage of sulphur

Contaminated storm water and washdown water collected within the storage tank containment areas

Rotary dumper building dust control scrubber

Conveyer transfer point dust control sprays and wash down facilities Pre-treated maintenance shop wastewater

Type: Continuous

Works and Procedures	Completion Date
Continuous flow monitoring and recording	Completed
Continuous pH adjustment	Completed
Continuous pH monitoring and recording	Completed
Spill containment works	Completed
Primary settling basin	Completed
Clarifier	Completed
Overflow tank	Completed
Recycled water system	Completed
Flocculant addition	Completed
Good operating practices	Completed

lssued: July 15, 1992 Amended: March 31, 2017

Waste Discharge Permit No. SC-100085-FSA

Grant McGillivray Deputy Sewage Control Manager

SCHEDULE B

Photograph of Sample Point 1:



Issued: Amended:

July 15, 1992 March 31, 2017

Grant McGillivray Deputy Sewage Control Manager

SCHEDULE B

2. SITE PLAN(S)



Issued: July 15, 1992 Amended: March 31, 2017

Waste Discharge Permit No. SC-100085-FSA

Grant McGillivray

SCHEDULE C

This Schedule sets out standard conditions and requirements for emergency procedures.

1. STANDARD CONDITIONS

- a) Except as otherwise provided in this Permit, all terms, conditions and definitions stipulated in the Bylaw shall apply to this Permit.
- b) Pursuant to the Bylaw, the Sewage Control Manager (the Manager) may amend the terms and conditions of this Permit.
- c) All records required by this permit shall be kept available for a minimum period of one year.

2. WORKS AND PROCEDURES

- a) All authorized works, procedures and requirements shall be employed at all times during any discharge to sewer. As applicable, all such works shall be inspected and calibrated regularly and maintained in good working condition.
- b) The Manager may require that additional works be installed if the existing works do not provide an acceptable level of treatment. The Manager must authorize new works or alterations to existing works. The Manager must authorize new waste sources.

3. NOTIFICATION PROCEDURES

The Permittee shall immediately report to Metro Vancouver at 604-643-8488 (24 hours):

- a) Spills with the potential to be discharged to the Sanitary Sewer.
- b) Failure of authorized works or conditions and/or failure to carry out authorized procedures that will or have the potential to result in a Permit limit being exceeded.
- c) Discharge pH less than 2 or greater than 12.5.

4. BY-PASSES

The discharge of Wastes that by-pass any authorized works or is not in accordance with procedures designated by the Permit is prohibited, unless prior authorization of the Manager is obtained.

5. DISCHARGE MONITORING

- a) All sampling and sample handling of wastewater discharges, including sample containers, storage, preservation and hold time requirements shall be carried out in accordance with all prescribed requirements stated within the latest edition of the "British Columbia Environmental Laboratory Manual" published by the Ministry of Environment, Province of British Columbia or "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, or an alternate standard authorized by the Manager.
- b) With the exception of pH measurements, all samples shall be analyzed by an independent, ISO/IEC 17025:2005 accredited laboratory unless otherwise authorized by the Manager.

lssued: July 15, 1992 Amended: March 31, 2017

rant McGillivray

Deputy Sewage Control Manager

SCHEDULE C

- c) Laboratories used by the Permittee must also be accredited by the Canadian Association for Laboratory Accreditation and/or the Standards Council of Canada for all parameters analyzed and must participate in relevant proficiency testing programs for each parameter.
- d) Any changes in method or location of monitoring must be authorized by the Manager.
- e) Additional monitoring and/or reporting shall be undertaken by the Permittee when required by the Manager.

lssued: July 15, 1992 Amended: March 31, 2017 Grant McGillivray

Waste Discharge Permit No. SC-100085-FSA

SCHEDULE D

This Schedule sets out the requirements for the monitoring of the discharge to Sewer.

DISCHARGE SAMPLING AND ANALYSES: Effective April 01, 2017

1. FLOW MEASUREMENTS

The Permittee shall measure or estimate the discharge flow to sanitary sewer during each month of operation using the method(s) authorized in Schedule B and record for reporting purposes the following:

- Total discharge volume (m³) for the month for sample point(s) 1
- Number of days of discharge to sewer during the month for sample point(s) 1
- Maximum daily discharge flow rate (m³/d) during the month for sample point(s) 1
- Maximum instantaneous flow rate (L/s) during the month for sample point(s) 1

2. CONTINUOUS MEASUREMENTS

The Permittee shall continuously measure the discharge pH during the period of discharge to sewer for sample point(s) 1 and record for reporting purposes the following:

- The total number of hours of discharge below the authorized pH range and the total number of hours of discharge above the authorized pH range during each month of operation.
- Total number of hours of discharge during the month.

3. SAMPLING PROGRAM

Continuous Discharge Sampling:

The Permittee shall record for reporting purposes for each sample the following:

- Sample date
- Sample collection time or sample collection start and stop time(s) if applicable
- Total daily discharge volume (m³) on the date of sampling

SAMPLE POINT: 1

Continuous Discharges:

On one normal operating day once per month collect 1 set of composite samples and analyze for:

Biochemical Oxygen Demand

Issued: July 15, 1992 Amended: March 31, 2017

Grant McGillivray Deputy Sewage Control Manager

SCHEDULE D

- Total Suspended Solids
- Sulphate
- Total Metals by ICP Scan including:
 - Aluminum, Arsenic, Boron, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Molybdenum, Nickel, Selenium, Silver, Zinc

On one normal operating day once per month collect 1 set of grab samples and analyze for:

- pH
- Oil & Grease Hydrocarbon
- Total Oil & Grease
- Sulphide

Grab sample pH analysis must be conducted immediately upon sampling.

Unless otherwise specified, composite samples shall consist of equal portions of grab samples, collected at a frequency of at least one per hour during discharge to sewer.

If composite sampling is specified, grab samples shall be taken during the period of composite sampling unless noted otherwise in this Schedule.

Unless otherwise specified, all samples should be taken during normal operations.

Grant McGillivray Deputy Sewage Control Manager

Issued: July 15, 1992 Amended: March 31, 2017

SCHEDULE E

This Schedule sets out reporting requirements for this Permit.

1. REPORTING REQUIREMENTS

By April 30, 2017 and quarterly thereafter for the term of this permit:

The Permittee shall submit a report detailing the results of the discharge sampling and analyses program, as specified, for the previous calendar quarter including lab reports. This information shall be submitted electronically using the supplied password-enabled web based application.

Should a violation of any term or condition of the Permit be noted, the report shall include a summary of the investigation into the cause of the violation and the corrective actions taken or proposed to prevent future violations. This does not preclude the immediate notification requirements specified in Schedule C.

2. ADDITIONAL REPORTING

Report Type	Requirements	Due Date	Frequency
Other	A report summarizing the completion of a wastewater characterization study of ethylene glycol in wastewater consisting of 3 grab samples collected monthly during a period when ethylene glycol is handled and when ethylene glycol containing wastewater is expected to be in the treatment system.	December 31, 2017	Once
Other	A report summarizing the estimated daily sulphate and sulphide loading (kg/d) discharged to sewer, based on average sulphate and sulphide sample results collected through the Sampling Program and measured daily flows.	January 31, 2018	Quarterly thereafter
Other	A report summarizing the review of storm water management on site and potential storm water reduction measures that could be implemented.	December 31, 2018	Once
Other	A report summarizing the review of sulphate in wastewater resulting from sulphur handling	December 31, 2018	Once

 Issued:
 July 15, 1992

 Amended:
 March 31, 2017

র্টারান্ট McGillivray Deputy Sewage Control Manager

SCHEDULE E

Report Type	Requirements	Due Date	Frequency
	activities on site and a discussion of additional	2 M	
	sulphate reduction measures and/or treatment		
	works that could be implemented.		

 Issued:
 July 15, 1992

 Amended:
 March 31, 2017

Waste Discharge Permit No. SC-100085-FSA

Grant McGillivray Deputy Sewage Control Manager

