

WASTE DISCHARGE PERMIT NO. SC-100086-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:

Suncor Energy Inc.
(the "Permittee")

To Authorize:

the discharge of Wastewater to Sewer from
a refined petroleum products processing and distribution terminal

Located at

1155 Glenayre Drive, Port Moody, BC V3H 3E1

Effective Period:

The terms and conditions set out in the Permit apply to the existing or planned works on
February 09, 2022

All previous versions of this Waste Discharge Permit are hereby rescinded and rendered null and void.

Issued: October 01, 1992
Amended: February 09, 2022


Grant McGillivray
Deputy Sewage Control Manager

GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT

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: **2400.00 m³/d**
- Maximum instantaneous peak flow rate: **44.20 L/s**

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	
Benzene	0.1 mg/L	
Phenols	1 mg/L	
Polycyclic Aromatic Hydrocarbons	0.05 mg/L	
Total BETX	1 mg/L	

- 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	400 mg/L	
Total Suspended Solids	150 mg/L	
Oil & Grease Hydrocarbon	20 mg/L	
Oil & Grease Hydrocarbon	10 mg/L	Average concentration/quarter
Ammonia as N	20 mg/L	
Ammonia as N	10 mg/L	Average concentration/quarter
Phenols	0.5 mg/L	Average concentration/quarter
Chromium - total	0.3 mg/L	

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SCHEDULE A

Parameter	Authorized Limit	Notes
Lead - total	0.1 mg/L	
Zinc - total	1 mg/L	

- c) The Permittee shall not discharge Prohibited Waste, Storm Water or Uncontaminated Water, as defined in the bylaw with the exception of storm water collected within the catchment areas of the process units and cooling waste collected within the utilities unit.
- 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.

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GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT

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: Cabinet located at the outfall line in holding basin.

Source: All Authorized Sources

Type: Continuous

Works and Procedures	Completion Date
Continuous flow monitoring and recording	Completed
Continuous pH monitoring and recording	Completed
API forebay	Completed
API separator (south)	Completed
Skimmer (employed based on visual inspections)	Completed
South holding basin	Completed
Aeration (employed based on visual inspections)	Completed
Tanks (9) for domestic waste solids	Completed
Good operating practices	Completed

Source: General Process & Tank Farm Areas

- Distillation unit
- Mogas treater
- Ultra low sulfur diesel treater
- Utilities
- Process water sewer system
- Boiler blow down
- Cooling water blow down
- Tank water bottoms
- Oily water returns

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GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT

SCHEDULE B

Product returns
Process area storm water
Process area maintenance
Flare knock out drum
Laboratory
Stores & workshops
Maintenance area
Slop handling wash pad
Bio reactor
Fuel transfer area
Bundle Cleaning Pad
Domestic waste from 9 septic tanks
Flare containment
Surge tanks 407 & 408 containment

Type: Continuous

Works and Procedures	Completion Date
Aeration (employed based on visual inspections)	Completed
Slop tanks	Completed
Skimmer	Completed
Bio-reactor	Completed
South holding basin	Completed
Collection system & associated pumps	Completed
API forebay	Completed
API separator (south)	Completed
Tanks (9) for domestic waste solids	Completed
Good operating practices	Completed

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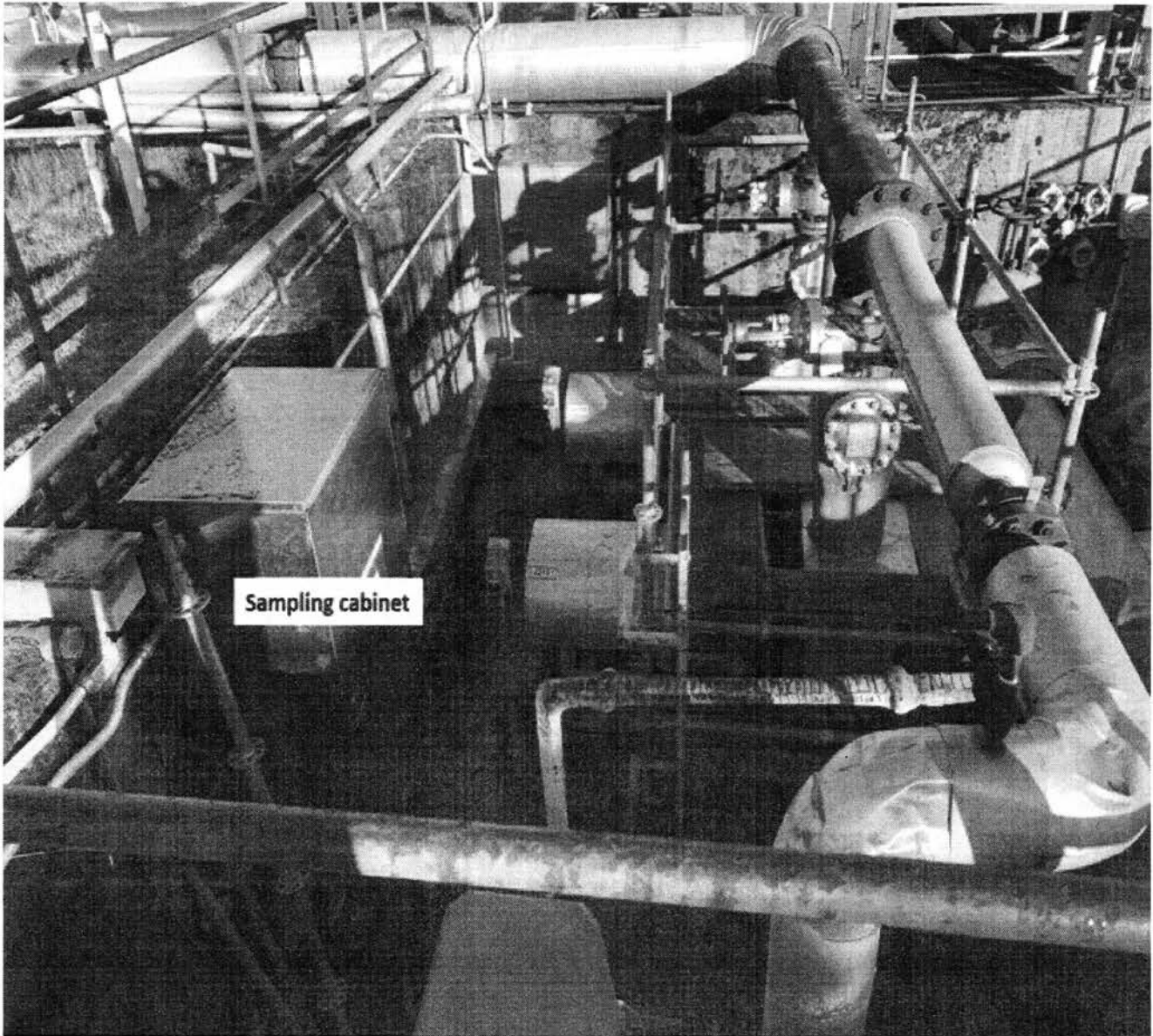

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SCHEDULE B

Photograph of Sample Point 1:



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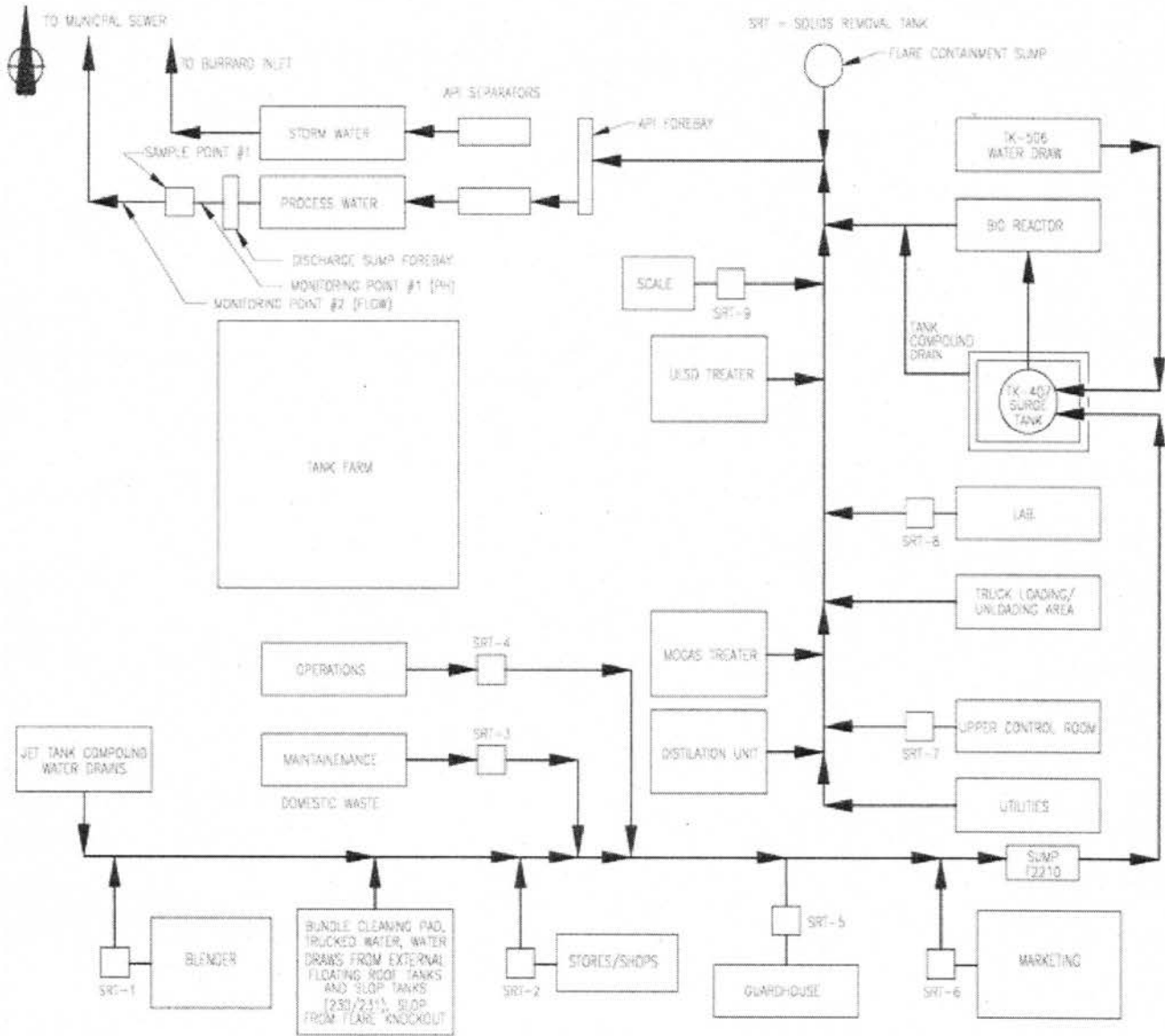
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SCHEDULE B

2. SITE PLAN(S)



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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 laboratory accredited through the latest version of ISO/IEC 17025 unless otherwise authorized by the Manager.

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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.

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GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT

SCHEDULE D

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

DISCHARGE SAMPLING AND ANALYSES: Effective January 01, 2022

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

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SCHEDULE D

SAMPLE POINT: 1

Continuous Discharges:

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

- 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:

- Total BETX

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

- pH
- Oil & Grease Hydrocarbon
- Ammonia as N
- Phenols

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

- Biochemical Oxygen Demand
- Total Suspended Solids

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

- Polycyclic Aromatic Hydrocarbons

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.

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SCHEDULE E

This Schedule sets out reporting requirements for this Permit.

1. REPORTING REQUIREMENTS

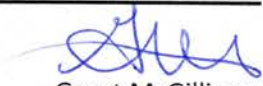
By April 30, 2022 and quarterly thereafter for the term of this permit:

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.

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