

WASTE DISCHARGE PERMIT NO. SC-100105-NWL

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:

Alchemist Specialty Carriers Inc. (the "Permittee")

To Authorize:

the discharge of Wastewater to Sewer from a tank trailer wash facility

Located at

9930 197 Street, Langley, BC V1M 3G5

Effective Period:

The terms and conditions set out in the Permit apply to the existing or planned works on November 20, 2020

All previous versions of this Waste Discharge Permit are hereby rescinded and rendered null and void.

Grant-McGillivray Deputy Sewage Control Manager

Issued: April 01, 1992 Amended: November 20, 2020

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: 200.00 m³/d
- Maximum instantaneous peak flow rate: 6.00 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
рН	5.5 - 10.5 pH Units	
Oil & Grease Hydrocarbon	15 mg/L	
Polycyclic Aromatic Hydrocarbons	0.05 mg/L	
Total BETX	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	
Iron - total	10 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	

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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	2000 mg/L	
Total Suspended Solids	2000 mg/L	

- c) The Permittee shall not discharge Prohibited Waste, Storm Water or Uncontaminated Water, as defined in the bylaw.
- 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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Grant McGillivray

Deputy Sewage Control Manager

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 discharge point from the final blue tank.

Source: All Plant Sources

Plant wash water

Boiler blow down water

Wash water generated from cleaning of tank trailer exteriors

Wash water generated from cleaning residue from interior of tank trailers including:

- Alkyd resin
- Aluminum sulphate
- Aqua ammonia
- Triacetin
- Black liquor
- Green liquor
- Bleach
- Clay slurry
- Calcium Carbonate
- Calcium Chloride

- Boral

- Fennofix
- Sodium hydroxide
- Disal
- Durasar
- Cement grinding aid
- Water based defoamer
- Caustic
- Glycol ether
- Resin
- Fennospur

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SCHEDULE B

- Formic acid
- Sulphuric acid
- Alastopr resin
- Ethylene glycol
- Polyethylene
- Ferric chloride
- Ferric sulphate
- Solvent
- Sulfamic acid
- Sodium chlorate
- Sodium hydrosulfide
- Sulphur
- Water treatment
- Wine
- Polystyrene
- Polyphophate
- Polyester resin
- Polyaluminum chloride
- Hydrochloric acid
- Hydrogen peroxide
- Latex
- Methanol
- Phenolic resin
- Triton
- Versonex
- Phosphoric acid
- Acetate

Type: Continuous

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SCHEDULE B

Works and Procedures	Completion Date
Grated covered floor trench	Completed
Manual shut off valve for final effluent	Completed
Digital flow meter	Completed
3 pH sensor probes	Completed
2 way directional valve before sedimentation tanks	Completed
Bi-weekly calibration of pH probes	Completed
Monthly calibration of pH probes by third party	Completed
Daily pH readings from final effluent tank to verify accuracy of digital pH meter	Completed
Continuous pH readings from final effluent tank to verify accuracy of digital pH	Completed
meter	
pH alarm for final effluent	Completed
Continuous pH adjustment	Completed
Four interceptors	Completed
Three sedimentation tanks	Completed
Coagulant and flocculant addition	Completed
Activated carbon filters	Completed
Oil water separator	Completed
Holding Tank	Completed
Good operating practices	Completed

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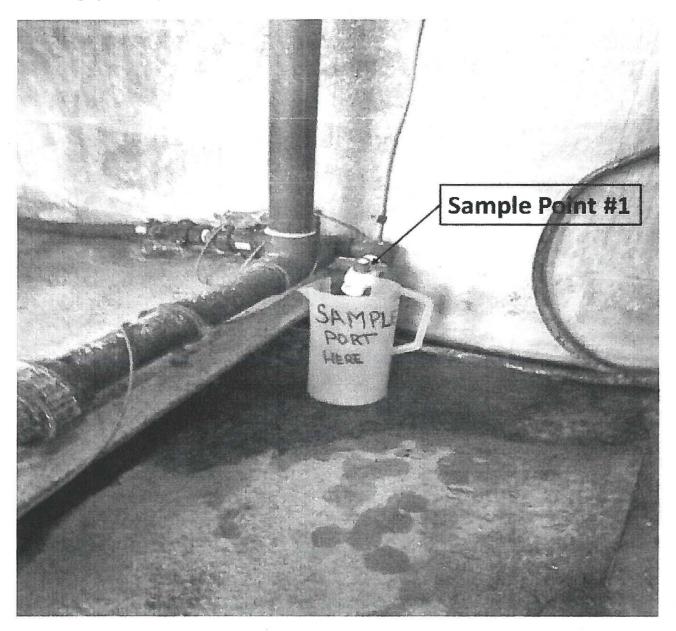
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SCHEDULE B

Photograph of Sample Point 1:



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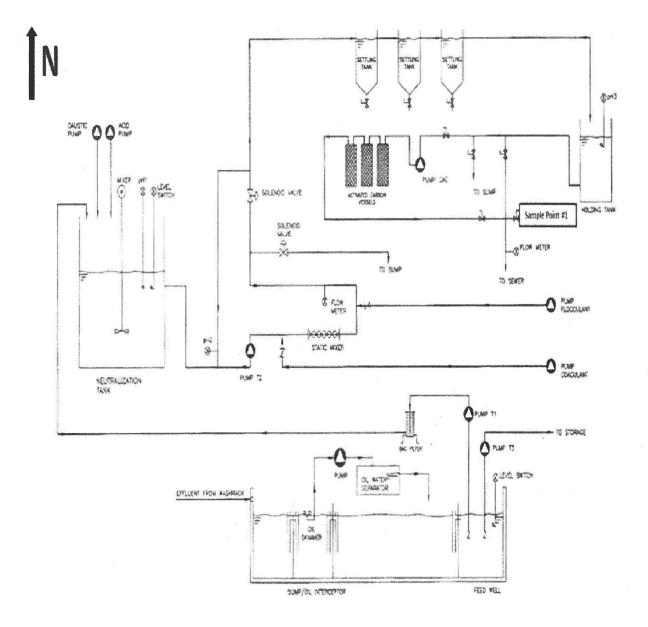
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SCHEDULE B

2. SITE PLAN(S)



Any new sources which are to be treated that fall under the Transportation of Dangerous Goods Regulation must undergo a demonstration trial prior to being authorized for discharge to sanitary sewer.

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Grant McGillivray Deputy Sewage Control Manager

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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Deputy Sewage Control Manager

SCHEDULE D

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

DISCHARGE SAMPLING AND ANALYSES

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

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:

- pH
- Biochemical Oxygen Demand
- Total Suspended Solids
- Chemical Oxygen Demand
- Conductivity
- 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:

- Oil & Grease Hydrocarbon
- Polycyclic Aromatic Hydrocarbons
- Total BETX

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

• Volatile Organic Compounds (VOC)

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.

The total number of tank trailers washed and the nature of the residue cleaned in each tank for the periods that the composite samples are collected shall be recorded.

The permittee shall keep a record of the nature of the residue cleaned in each tank trailer washed. The records shall be kept available for a minimum period of 12 months and made available for inspection upon request.

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SCHEDULE E

This Schedule sets out reporting requirements for this Permit.

1. REPORTING REQUIREMENTS

By January 31, 2021 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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Deputy Sewage Control Manager