

PERMIT GVA0149

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:

Transcontinental Flexstar Inc.
(the "Permittee")

To Authorize:

the discharge of air contaminants to the air from
A PLASTICS PACKAGING FILM, SHEET & LAMINATED MANUFACTURING FACILITY

Located at:


13320 River Road, Richmond, BC V6V 1W7

Effective Period:

The terms and conditions set out in the Permit apply to the existing or planned works as of
January 01, 2023 and this Permit will expire on March 01, 2033.

All previous versions of this Permit are invalid.

Issued: November 30, 1992
Amended: December 22, 2022


Kathy Preston, Ph.D., P.Eng.
District Director

METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

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.

FUGITIVE VOLATILE ORGANIC COMPOUNDS (VOC) FACILITY RESTRICTION

MAXIMUM EMISSION FLOW RATE: The maximum rate of discharge is that due to ventilation of the building.

MAXIMUM ANNUAL OPERATING HOURS: 8760 h/y

MAXIMUM EMISSION QUANTITY: 20.87 t/y Fugitive Volatile Organic Compounds

This restriction excludes Total Volatile Organic Compounds from Emission Source 29.

WORKS AND PROCEDURES: All printer presses and floor sweeps connected to Emission Source 29 must be operated under negative pressure to minimize fugitive VOC emissions. From January 1, 2024, all processes and equipment must be operated in accordance with the approved Fugitive Emissions Management Plan.

EMISSION SOURCE 07: Welding booth discharging through a Vent(s).

MAXIMUM EMISSION FLOW RATE: 30 m³/min

MAXIMUM ANNUAL OPERATING HOURS: 3500 h/y

MAXIMUM EMISSION QUALITY:

1. 5% Opacity.

WORKS AND PROCEDURES:

Good operating practices must be employed.

EMISSION SOURCE 10: Ten Polyethylene Pellet Silos (Six - 91 tonne and four - 45.5 tonne capacity) discharging through tank vents.

MAXIMUM EMISSION FLOW RATE: The rate of discharge is 48 m³/min during the filling of the silos. The frequency of filling is variable.

MAXIMUM ANNUAL OPERATING HOURS: 8760 h/y

MAXIMUM EMISSION QUALITY:

1. 5% Opacity.

Issued: November 30, 1992
Amended: December 22, 2022


Kathy Preston, Ph.D., P.Eng.
District Director

Permit GVA0149

METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

WORKS AND PROCEDURES:

Good operating practices must be employed.

EMISSION SOURCE 29: Regenerative Thermal Oxidizer discharging through a Stack(s).

MAXIMUM EMISSION FLOW RATE: **1743** m³/min

MAXIMUM ANNUAL OPERATING HOURS: **8760** h/y

MAXIMUM PRIMARY BURNER INPUT FIRING RATE: **11.38** GJ/h

MAXIMUM AFTERBURNER INPUT FIRING RATE: **10.6** GJ/h

MAXIMUM EMISSION QUANTITY:

1. 9.89 t/y Total Volatile Organic Compounds

MAXIMUM EMISSION QUALITY:

1. 30 mg/m³ Total Volatile Organic Compounds
2. 5% Opacity.

WORKS AND PROCEDURES:

A Ship & Shore Environmental, Inc., model SSE-50K-95X-RTO regenerative thermal oxidizer (RTO) with a firing rate of 10.55 GJ/h and related appurtenances together with good operating and combustion practices. The RTO must be fired with natural gas and be operated at a minimum exit temperature of 790 °C with a minimum retention time of 0.5 seconds.

All emissions from the following sources must be collected and conveyed to the RTO for treatment prior to discharge:

- Floor sweeps
- Ink storage room
- Parts washer
- Nordmeccanica laminator corona treater (Line 101)
- Nordmeccanica laminator (Line 102)
- Uteco CI Flexo press for print deck section (Line 304)
- Uteco CI Flexo press for print deck section (Line 305)
- Nordmeccanica laminator corona treater (Line 103)
- Windmoller & Holscher Optimex Extruder/Treater (Line 211)
- Windmoller & Holscher CI Flexo press (Line 306)
- Nordmeccanica laminator (Line 104)
- Windmoller & Holscher CI Flexo press (Line 307)

Issued: November 30, 1992

Amended: December 22, 2022


Kathy Preston, Ph.D., P.Eng.
District Director

Permit GVA0149

METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

The following sources must be (1) fired with natural gas together with good combustion practices and operating procedures and (2) connected to the RTO such that all emissions are collected and treated prior to discharge:

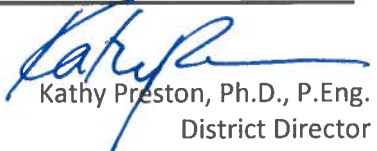
- Nordmeccanica laminator dryer (Line 101) with a maximum firing rate of 1.27 GJ/h, and using partial recirculation of exhaust gases into the primary burner,
- Uteco CI Flexo press dryer for tunnel section (Line 304) with a maximum firing rate of 0.84 GJ/h,
- Uteco CI Flexo press dryer for tunnel section (Line 305) with a maximum firing rate of 0.84 GJ/h,
- Nordmeccanica laminator dryer (Line 103) with a maximum firing rate of 1.16 GJ/h,
- Windmoller & Holscher printing press dryer for tunnel section (Line 306) with a maximum firing rate of 0.63 GJ/h,
- Nordmeccanica printing press (Line 104) with a maximum firing rate of 2.09 GJ/h,
- Windmoller & Holscher printing press (Line 307) with a maximum firing rate of 1.08 GJ/h.

The permittee must continuously monitor and record, via a data logger, the thermal oxidizer temperature. The temperature measurement system must be placed in an accessible and visible location. All works must be maintained under negative pressure.

Stack Information: Height: 11.5 m; Effective Diameter: 1.7 m; Exit Temperature (°C): 110; Circular and vertical discharge.

MINIMUM INCINERATOR EXIT TEMPERATURE: 790 °C

Issued: November 30, 1992
Amended: December 22, 2022


Kathy Preston, Ph.D., P.Eng.
District Director

Permit GVA0149

METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

SECTION 2 – GENERAL REQUIREMENTS AND CONDITIONS

A. POLLUTION NOT PERMITTED

Notwithstanding any conditions in this permit, no person may 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.

B. AUTHORIZED WORKS, PROCEDURES AND SOURCES

Works and procedures, which this permit authorizes in order to control the discharge of air contaminants, must be employed during all operating periods of the related sources. The Permittee must 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 changes to or replacement 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.

C. NOTIFICATION OF MONITORING NON-COMPLIANCE

The District Director must be notified immediately of:

1. 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;
2. Any (a) interruption, (b) damage or (c) interference to any (i) continuous ambient air analyzer, (ii) meteorological sensor or (iii) related equipment required in Section 1 or Section 3 of this permit that would cause the continuous ambient air analyzer or meteorological sensor to be offline for a period greater than 48 hours; and
3. Any exceedance of a Metro Vancouver ambient air quality objective measured by an ambient monitoring station required in Section 1 or Section 3 of this permit.

Notification must be made to Metro Vancouver's 24-hour number: 604-436-6777, or to ERNotifications@metrovancover.org.

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.

Issued: November 30, 1992
Amended: December 22, 2022


Kathy Preston, Ph.D., P.Eng.
District Director

Permit GVA0149

METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

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 must:

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 must be made to Metro Vancouver's 24-hour number: 604-436-6777 or EREnotifications@metrovancover.org; and
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 must 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. 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:
 - 3% O₂ for natural gas and fuel oil; or
 - 8% O₂ 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

Issued: November 30, 1992
Amended: December 22, 2022


Kathy Preston, Ph.D., P.Eng.
District Director

Permit GVA0149

METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

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_x) are expressed as Sulphur Dioxide.
9. Nitrogen Oxides (NO_x) 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 (PN1180)" 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.


H. 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.

I. HEATING, VENTILATION, AIR CONDITIONING AND INTERNAL COMBUSTION ENGINES

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

Issued: November 30, 1992
Amended: December 22, 2022


Kathy Preston, Ph.D., P.Eng.
District Director

Permit GVA0149

METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

SECTION 3 – REPORTING REQUIREMENTS

A. MONITORING REQUIREMENTS AND REPORTING

Unless otherwise approved in writing by the District Director prior to any sampling or analysis, all measurements must 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 written 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@metrovanancouver.org).


Unless otherwise specified, sampling must 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 must be reported in the metric units that are used in this permit. These submissions must include process data relevant to the operation of the source of the emissions and the performance of the emission control works.

Unless otherwise specified or approved in writing by the District Director, stack sampling must not occur more than 120 calendar days prior to the due dates specified below.

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

Issued: November 30, 1992
Amended: December 22, 2022

Permit GVA0149


Kathy Preston, Ph.D., P.Eng.
District Director

METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	PARAMETER(S)	TEST METHOD	REPORT TYPE
29	June 30, 2023	Every 2 years, on or before June 30 every second year.	Written report detailing the measured discharge rate and concentration of Total Volatile Organic Compounds in the emissions.	Total Volatile Organic Compounds	EPA Test Method 25A	Stack

Issued: November 30, 1992
 Amended: December 22, 2022


 Kathy Preston, Ph.D., P.Eng.
 District Director

Permit GVA0149

METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

B. INFORMATION REPORTING REQUIREMENTS

The Permittee must submit electronic reports containing the required information to the District Director by the due dates specified in the following table using a password enabled web based application provided by Metro Vancouver.

EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	REPORT TYPE
29	February 28, 2023	N/A	A written sampling test plan, including proposed methodologies, must be submitted for written approval by Metro Vancouver staff prior to commencing sampling. This plan will outline the proposed methodologies for volatile organic compounds (VOC) (as methane) testing.	Stack Test Plan
07, 10, 29, Facility	March 31, 2023	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 format approved by the District Director.	Operating Period
29	March 31, 2023	On or before March 31 for each subsequent year.	Written report providing details of the types and amounts of fuel burned in the preceding calendar year.	Fuel Use
29, Facility	April 30, 2023	Quarterly, on or before April 30, July 31, October 31 and January 31 of each year.	Facility VOC Discharge Report Submit for review and acceptance by Metro Vancouver staff, a written report summarizing the discharges of volatile organic compounds (VOCs) in tonnes per quarter for the preceding calendar quarter.	Facility VOC Discharge Report Information - Other


 Kathy Preston, Ph.D., P.Eng.
 District Director

Issued: November 30, 1992
 Amended: December 22, 2022

Permit GVA0149

METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	REPORT TYPE
			<p>The report must detail the method used to calculate the discharges. The method used to calculate the discharges must be approved in writing by the District Director.</p> <p>The Q4 report submission (due January 31st) must include a sum (as tonnes/year) of the quarterly discharges for the previous calendar year.</p> <p>Detailed records are to be maintained in a format acceptable to Metro Vancouver staff.</p>	
29	June 30, 2023	N/A	Submit a written plan outlining a proposed annual exit temperature verification and calibration procedure of the afterburners for review and written comment by Metro Vancouver staff.	Afterburner Temperature Measurement System Calibration Plan Information - Other
Facility	June 30, 2023	N/A	Written Fugitive Emissions Management Plan (FEMP) that describes the works and procedures necessary for controlling fugitive VOC emissions at the facility. The FEMP must be submitted to the District Director for review, comment, and written approval. Once approved, the FEMP may be updated by the permittee. Any updates are to be submitted to Metro Vancouver at least 6 months before the propose change for review, comment, and written approval. The most recently approved FEMP will be the plan in force.	Fugitive Emissions Management Plan Information - Other


 Kathy Preston, Ph.D., P.Eng.
 District Director

Issued: November 30, 1992
 Amended: December 22, 2022

Permit GVA0149

METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	REPORT TYPE
29	March 31, 2024	On or before March 31 for each subsequent year.	Submit a written report that includes a summary of the calibration measurements, conducted by an independent consultant in accordance with vendor specified procedures, and any maintenance actions taken on the afterburners in the previous calendar year.	Afterburner Calibration Summary and Maintenance Report Information - Other

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



Kathy Preston, Ph.D., P.Eng.
District Director

Issued: November 30, 1992
Amended: December 22, 2022

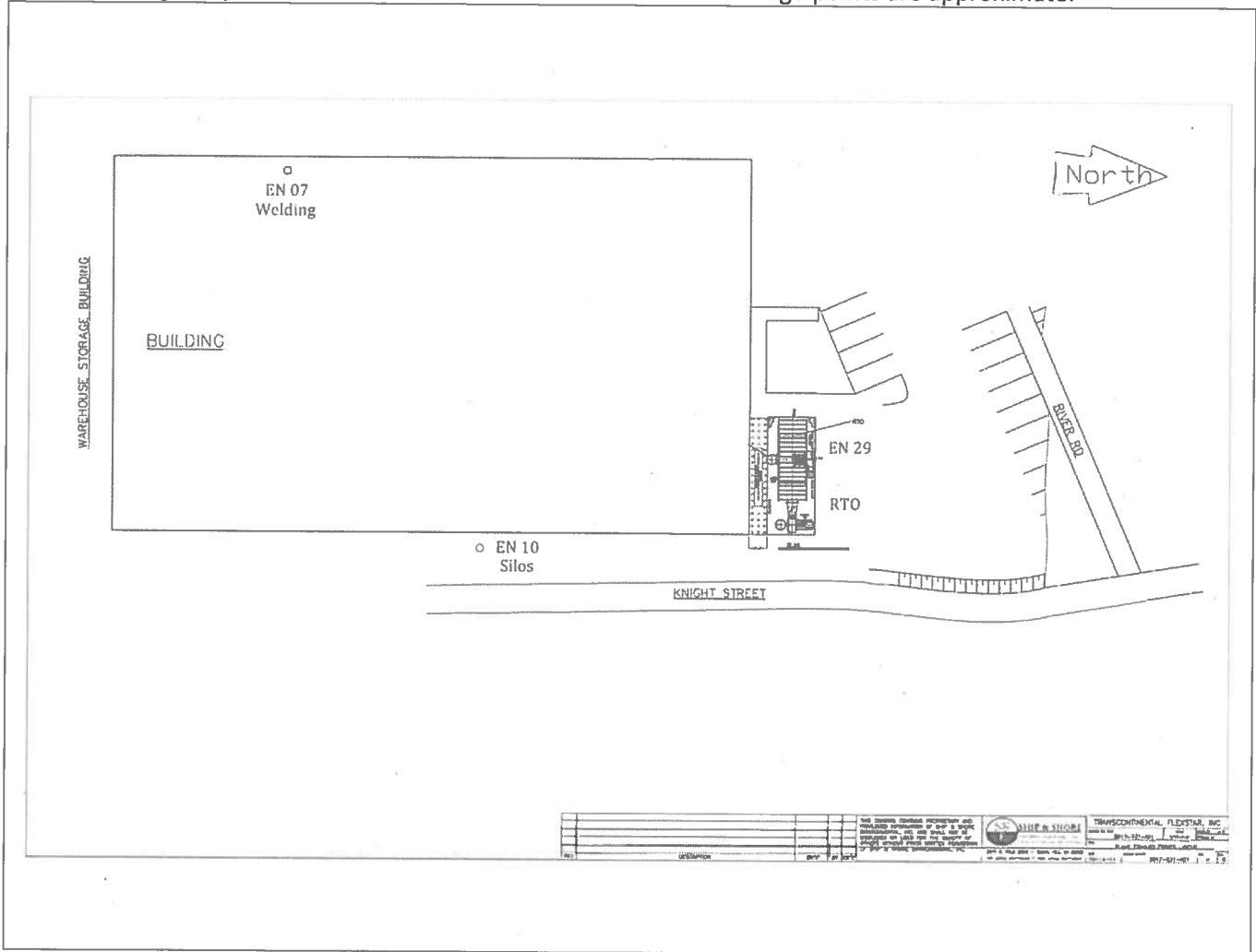
Permit GVA0149

METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

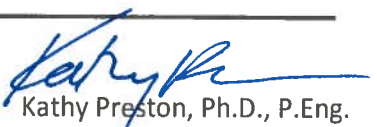
SECTION 4 – SITE PLAN

LEGAL DESCRIPTION OF DISCHARGE SITE: Municipality of Richmond, Parcel Identifier: 003-644-154, Lot 63, Sections 17 and 20, Block 5 North, Range 5 West, Plan 47297, New Westminster District.

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



Issued: November 30, 1992
Amended: December 22, 2022


Kathy Preston, Ph.D., P.Eng.
District Director

Permit GVA0149