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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

PERMIT GVA0064

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:

Crown Corrugated Company

(the "Permittee")

To Authorize:

the discharge of air contaminants to the air from

a corrugated container manufacturing plant

Located at:

3300 Viking Way, Richmond, BC V6V 1N6

Effective Period:

The terms and conditions set out in the Permit apply to the existing or planned works as of July 14, 2026 and this Permit will expire on June 25, 2031.

All previous versions of this Permit are invalid.

Issued: November 30, 1992
Amended: July 14, 2026

Julie Saxton
Assistant 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.

EMISSION SOURCE 01: **Corrugating machine area discharging through a Vent(s).**

MAXIMUM EMISSION FLOW RATE: **3540** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **6240** h/y

MAXIMUM EMISSION QUALITY:
1. 20 mg/m^3 Particulate Matter
2. 10% Opacity

WORKS AND PROCEDURES:
Five vents. Good operating practices.

EMISSION SOURCE 02: **High pressure process boiler discharging through a Stack(s).**

MAXIMUM EMISSION FLOW RATE: **90** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **6240** h/y
MAXIMUM PRIMARY BURNER INPUT FIRING RATE: **15.5** GJ/h

MAXIMUM EMISSION QUALITY:
1. 5% Opacity

WORKS AND PROCEDURES:
The firing of the boiler with natural gas together with good operating and combustion practices.

EMISSION SOURCE 03: **Low pressure process boiler discharging through a Stack(s).**

MAXIMUM EMISSION FLOW RATE: **10** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **6240** h/y
MAXIMUM PRIMARY BURNER INPUT FIRING RATE: **1.8** GJ/h

MAXIMUM EMISSION QUALITY:
1. 5% Opacity

WORKS AND PROCEDURES:
The firing of the boiler with natural gas together with good operating and combustion practices.

EMISSION SOURCE 04: **Hot water boiler discharging through a Stack(s).**

MAXIMUM EMISSION FLOW RATE: **70** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **4368** h/y
MAXIMUM PRIMARY BURNER INPUT FIRING RATE: **13.3** GJ/h

MAXIMUM EMISSION QUALITY:
1. 5% Opacity

WORKS AND PROCEDURES:
The firing of the boiler with natural gas together with good operating and combustion practices.

EMISSION SOURCE 05: **Cardboard scrap collection system discharging through a Baghouse Exhaust(s).**

MAXIMUM EMISSION FLOW RATE: **1925** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **6240** h/y

MAXIMUM EMISSION QUALITY:
1. 50 mg/m^3 Particulate Matter
2. 10% Opacity

WORKS AND PROCEDURES:
Baghouse and related appurtenances, together with good operating practices.

EMISSION SOURCE 09: **Welding table discharging through a Vent(s).**

MAXIMUM EMISSION FLOW RATE: **142** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **6240** h/y

MAXIMUM EMISSION QUALITY:
1. 5% Opacity

WORKS AND PROCEDURES:
Good operating practices.

EMISSION SOURCE 10: **Corrugator singlefacer discharging through a Vent(s).**

MAXIMUM EMISSION FLOW RATE: **15** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **6240** h/y

MAXIMUM EMISSION QUALITY:
1. 5% Opacity

WORKS AND PROCEDURES:
Good operating practices.

EMISSION SOURCE 11: **Starch mixing tank discharging through a Stack(s).**

MAXIMUM EMISSION FLOW RATE: **57** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **6240** h/y

MAXIMUM EMISSION QUALITY:
1. 5% Opacity

WORKS AND PROCEDURES:
Good operating practices.

EMISSION SOURCE 12: **Die room discharging through a Vent(s).**

MAXIMUM EMISSION FLOW RATE: **108** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **6240** h/y

MAXIMUM EMISSION QUALITY:
1. 5% Opacity

WORKS AND PROCEDURES:
Good operating practices.

EMISSION SOURCE 13: **Flexo die wash area discharging through a Vent(s).**

MAXIMUM EMISSION FLOW RATE: **142** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **6240** h/y

MAXIMUM EMISSION QUALITY:
1. 5% Opacity

WORKS AND PROCEDURES:
Good operating practices.

EMISSION SOURCE 14: **Four 8000 gallon wax storage tanks discharging through a Vent(s).**

MAXIMUM EMISSION FLOW RATE: **The rate of discharge is that resulting from vapour venting during tank filling and breathing. The frequency of filling is variable.**
MAXIMUM ANNUAL OPERATING HOURS: **8760** h/y

MAXIMUM EMISSION QUALITY:
1. 5% Opacity

WORKS AND PROCEDURES:
Four vents. Good operating practices.

EMISSION SOURCE 15: **Hot melt gluer discharging through a Vent(s).**

MAXIMUM EMISSION FLOW RATE: **60** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **3120** h/y

MAXIMUM EMISSION QUALITY:
1. 5% Opacity

WORKS AND PROCEDURES:
Good operating practices.

EMISSION SOURCE 17: **Koch waxer discharging through a Vent(s).**

MAXIMUM EMISSION FLOW RATE: **133** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **4500** h/y

MAXIMUM EMISSION QUALITY:
1. 5% Opacity

WORKS AND PROCEDURES:
Two vents. Good operating practices.

EMISSION SOURCE 18: **Resco waxer discharging through a Vent(s).**

MAXIMUM EMISSION FLOW RATE: **246** m^3/min
MAXIMUM ANNUAL OPERATING HOURS: **2000** h/y

MAXIMUM EMISSION QUALITY:
1. 5% Opacity

WORKS AND PROCEDURES:
Good operating practices.

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 interruption of, damage to or interference with any continuous ambient air analyzer, meteorological sensor or 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 EREnotifications@metrovancouver.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.

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E. EMERGENCY PROCEDURES

In the event of an emergency or condition 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@metrovancouver.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, the spill must also be reported to Provincial Emergency Program (PEP) British Columbia by calling 1-800-663-3456 and the Permittee must otherwise comply with requirements of the Act and the Spill Reporting Regulation.

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% O_2 for natural gas and fuel oil; or
   - 8% O_2 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 must not exceed 15 milligrams per kilogram (mg/kg) and emissions during fuel oil firing must 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)" must 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.
12. Qualified Professional means an individual who:
    a. is registered in British Columbia with a professional association, is acting under that organization's code of ethics, and is subject to disciplinary action by that association, and
    b. through suitable education, experience, accreditation and knowledge, may reasonably be relied on to provide advice within his or her area of expertise, which area of expertise is applicable to the duty or function.

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.

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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 Metro Vancouver, Environmental Regulation & Enforcement (phone 604-436-6777, email EREnotifications@metrovancouver.org).

Unless otherwise specified, sampling must be performed under operating conditions representative of or greater than 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.

EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	PARAMETER(S)	TEST METHOD	REPORT TYPE/TITLE
N/A	N/A	N/A	N/A	N/A	N/A	N/A

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.

If there is a requirement for a Qualified Professional, then the most recent version of the "Qualified Professional Declaration of Competency" and "Qualified Professional Conflict of Interest Disclosure Statement" forms, available on the Metro Vancouver website in the Forms Package for Air Permit Applications, must be submitted to Metro Vancouver no later than the reporting requirement due date.

EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	REPORT TYPE/TITLE
02, 03, 04, 10, 11, 12, 13, 15, 17, 18, 01, 05, 09	March 31, 2027	On or before March 31 for each subsequent year.	Written report detailing the total number of hours and days operated during the preceding calendar year.	Operating Period
05	March 31, 2027	On or before March 31 for each subsequent year.	Written report indicating inspection frequency, bag condition and action taken or proposed to solve any problems detected for the baghouse.	Baghouse
Facility	March 31, 2027	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
Facility	March 31, 2027	On or before March 31 for each subsequent year.	Written report detailing the types and amounts of fuel burned in the preceding calendar year.	Fuel Use

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EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	REPORT TYPE/TITLE
Facility	March 31, 2027	On or before March 31 for each subsequent year.	Written report detailing the types, amounts and end use of organic solvents and organic solvent-containing materials including inks used in the preceding calendar year.	Solvent Use

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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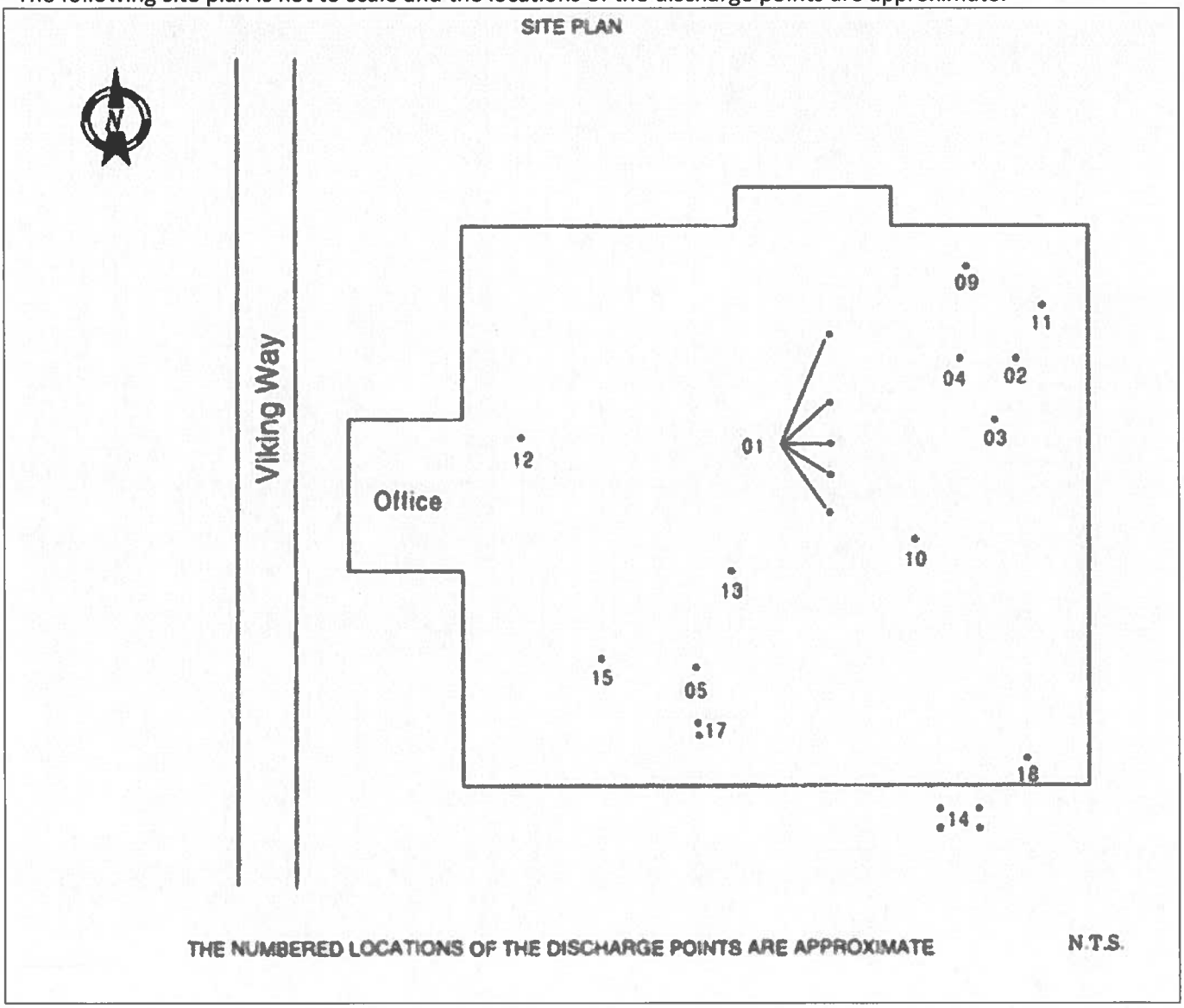
SECTION 4 – SITE PLAN

LEGAL DESCRIPTION OF DISCHARGE SITE: **Municipality of Richmond, Parcel Identifier: 006-549-586, Lot 11 Section 29 Block 5 North Range 5 West New Westminster District Plan 42822**

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



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