

PERMIT GVA0237

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:

A-Z Foam Ltd.
(the "Permittee")

To Authorize:

the discharge of air contaminants to the air from
a polyurethane foam manufacturing facility

Located at:

811 Cundy Avenue, Delta, BC V3M 5P6

Effective Period:

The terms and conditions set out in the Permit apply to the existing or planned works as of
November 22, 2023 and this Permit will expire on November 30, 2028.

All previous versions of this Permit are invalid.

Issued: November 30, 1992
Amended: November 22, 2023


Kathy Preston, Ph.D., P.Eng.
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: Ventilation of a prime foam manufacturing machine discharging through a Stack(s).

MAXIMUM EMISSION FLOW RATE: **708** m³/min
MAXIMUM ANNUAL OPERATING HOURS: **130** h/y

MAXIMUM EMISSION QUALITY:
1. 0.8 mg/m³ Toluene Diisocyanate

WORKS AND PROCEDURES:
Hennecke Multiflex Slabstock Foam Plant and related appurtenances together with good operating practices.

Stack Information:
Height above ground level: 17.28 m
Inside diameter at stack top: 1.38 m
Exit temperature: 23°C

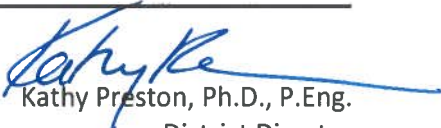
EMISSION SOURCE 02: Ventilation of secondary foam products manufacturing area discharging through a Vent(s).

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

MAXIMUM EMISSION QUANTITY:
1. 11 t/y Total Volatile Organic Compounds

WORKS AND PROCEDURES:
Good operating practices.

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EMISSION SOURCE 03: Toluene Di-isocyanate storage tanks discharging through a Vent(s).

MAXIMUM EMISSION FLOW RATE: **The rate of discharge is that resulting from venting during tank filling, withdrawing, and breathing.**

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

MAXIMUM EMISSION QUANTITY:

1. 0.0001 t/y Toluene Diisocyanate

MAXIMUM EMISSION QUALITY:

1. 0% Opacity

WORKS AND PROCEDURES:

Two storage tanks (5000 US Gal each) and related appurtenances, together with good operating practices.

EMISSION SOURCE 04: Natural gas-fired boiler discharging through a Stack(s).

MAXIMUM ANNUAL OPERATING HOURS: **2000 h/y**

MAXIMUM PRIMARY BURNER INPUT FIRING RATE: **0.422 GJ/h**

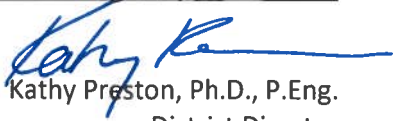
MAXIMUM EMISSION QUALITY:

1. 5% Opacity

WORKS AND PROCEDURES:

Good operating practices.

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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:

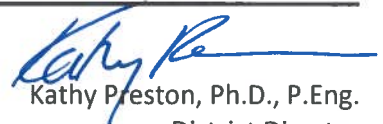
1. Any emission monitoring results, whether from a continuous emissions monitor or periodic testing, which exceed the quantity or quality authorized in Section 1 of this permit;
2. Any (a) interruption, (b) damage or (c) interference to any (i) continuous ambient air analyzer, (ii) meteorological sensor 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 EREnotifications@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.

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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 ERNotifications@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

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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.

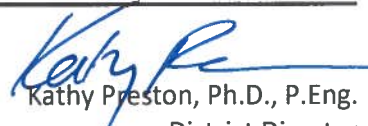
H. RECORDS RETENTION

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 the Metro Vancouver Environmental Regulation & Enforcement Division (phone 604-436-6777, Fax 604-436-6707, email EREnotifications@metrovanancouver.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.

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EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	PARAMETER(S)	TEST METHOD	REPORT TYPE/TITLE
01	September 30, 2024	On or before September 30 for each subsequent year.	<p>Submit a written report detailing the measured discharge rate and concentration of toluene di-isocyanate in the emissions.</p> <p>The report must also detail the operating conditions of equipment and processes that contribute to or control the emissions, and production rates during the stack testing.</p>	Toluene Diisocyanate	WCB Method 3601	Stack

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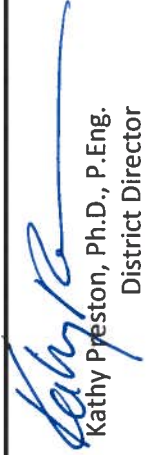
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B. INFORMATION REPORTING REQUIREMENTS

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/TITLE
01, 04	March 31, 2024	On or before March 31 for each subsequent year.	Submit a written report providing details of the total number of hours and days operated in the preceding calendar year.	Operating Period
02	March 31, 2024	On or before March 31 for each subsequent year.	Submit a written report providing details of the types, amounts and end use of organic solvents and organic solvent-containing materials used in the preceding calendar year.	Solvent Use
Facility	March 31, 2024	On or before March 31 for each subsequent year.	Submit a written report providing details of the types and amounts of principal products produced and principal raw materials used in the preceding calendar year.	Materials and Products
Facility	March 31, 2024	N/A	Submit for written approval from the District Director, a final dispersion modelling report based on the modelling plan approved by Metro Vancouver on June 01, 2018. The final report must address all Metro Vancouver comments provided in a comment tracking table on May 21, 2021, and any follow-up comments. All final modelling files must be made available to Metro Vancouver upon request.	Final Dispersion Model Report Dispersion Model Report



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EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	REPORT TYPE/TITLE
Facility	October 31, 2024	N/A	<p>Submit for review, comment, and written approval from the District Director, a written plan prepared by a Qualified Professional*, for assessing control technologies that will reduce emissions of Toluene Di-isocyanate and Volatile Organic Compounds from all sources at the facility.</p> <p>The plan must include an outline or annotated table of contents for the Control Technology Review Report and must also include methodologies that will be used to:</p> <ul style="list-style-type: none"> - identify potential control technologies, - quantify emission reductions, - identify environmental and community impacts, - quantify capital and operating costs, - assess the feasibility of implementation, and - rank the potential control technologies. <p>The use of combined technologies for optimal air contaminant removal efficiency must also be explored as a means for continuous improvement.</p> <p>*As defined in the most recent versions of the "Qualified Professional Declaration of Competency" and "Qualified Professional Conflict of Interest Disclosure Statement" forms, as available on the Metro Vancouver website, and submitted by the permit holder.</p>	Control Technology Review Plan Information - Other



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Facility	March 31, 2025	N/A	<p>Submit for review, comment, and written approval from the District Director, a report in accordance with an approved Control Technology Review Plan.</p> <p>The report must be prepared by a Qualified Professional* and must include information on the feasibility, approximate cost, and effectiveness of methods and control systems. The methodology used to assess and rank technologies must be clearly described.</p> <p>The report must include an implementation schedule for installation and operation of the preferred technology. The implementation schedule forms part of the report and is subject to approval from the District Director.</p> <p>*As defined in the most recent versions of the "Qualified Professional Declaration of Competency" and "Qualified Professional Conflict of Interest Disclosure Statement" forms, as available on the Metro Vancouver website, and submitted by the permit holder.</p>	Control Technology Review

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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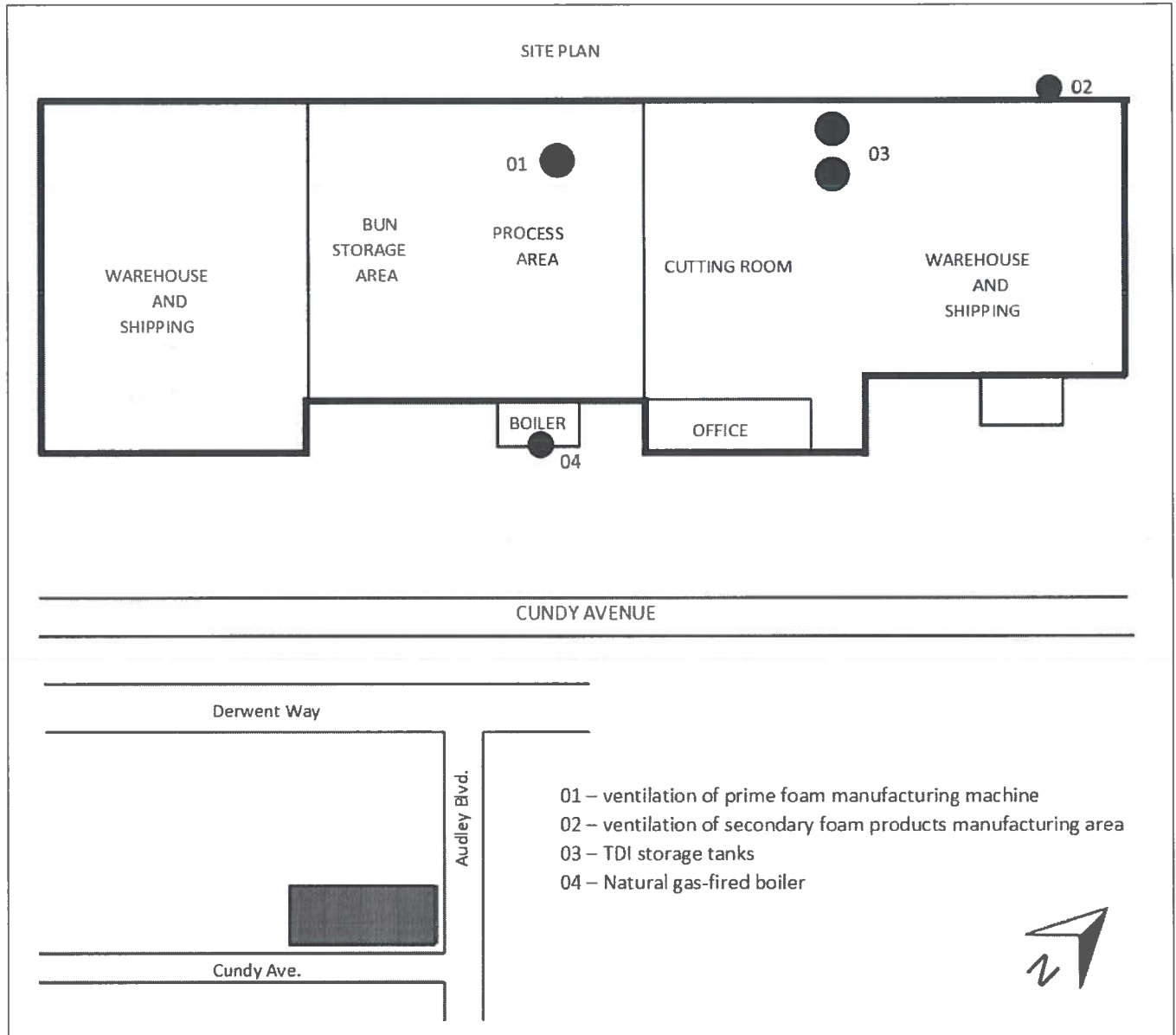
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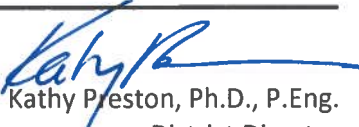
SECTION 4 – SITE PLAN

LEGAL DESCRIPTION OF DISCHARGE SITE: Municipality of Delta, Lot 40 District Lot 351 Group 1 New Westminster District Plan 36941.

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



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