

PERMIT GVA1183

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:

Lucava Farms Inc.
(the "Permittee")

To Authorize:

the discharge of air contaminants to the air from
Cannabis Product Manufacturing

Located at:

1840 Broadway Street, Port Coquitlam, BC V3C 2M8

Effective Period:

The terms and conditions set out in the Permit apply to the existing or planned works as of
March 03, 2021 and this Permit will expire on March 01, 2031.

Issued: March 03, 2021


Kathy Preston, Ph.D., P.Eng.
Assistant 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.

EMISSION SOURCE 1: Cannabis cultivation, processing and storage areas exhaust discharging through a Vent(s).

MAXIMUM EMISSION FLOW RATE: **115 m³/min**
MAXIMUM ANNUAL OPERATING HOURS: **8760 h/y**

MAXIMUM EMISSION QUANTITY:
1. 0.0958 t/y Total Volatile Organic Compounds

WORKS AND PROCEDURES:

Each roof vent must be equipped with a Camfil Molecular Cylinder Filter using CamCarb CG35 Cylinders with coconut shell activated carbon or equivalent control technology approved by the District Director.

The number of cannabis plants being cultivated must not exceed 2,250 plants at any time or 9,000 plants per year.

Stack Information:

Height: 8 fans at 7.62 m;
Effective Diameter: 1 fan at 0.25 m, 4 fans at 0.35 m, 1 fan at 0.60 m, 1 fan at 0.40 m, and 1 fan at 0.30 m;
Exit Temperature (°C): Ambient;
Circular, vertical discharge, with raincaps.
The total flow rate from all 8 fans must not exceed 115 m³/min.

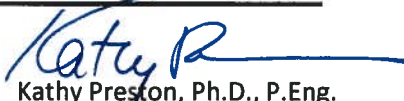
Building Requirements:

All structures associated with this source must be under negative pressure with all air to be collected and directed to the carbon filters at all times.

All cannabis cultivation, processing and storage area doors must be closed at all times except for:

1. When personnel are entering or exiting those areas,
2. The time required for product loading and unloading, or
3. The time required for one piece of equipment to be brought into or out of the building as required for maintenance and repair.

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Pressure differential gauges must be used to monitor continuously and record weekly the building-to-atmosphere differential pressure. All records of differential pressure measurement must be made available for inspection by Metro Vancouver Officers for a minimum of 2 years.

Carbon Filter Replacement:

Carbon filters must be replaced with a minimum frequency as specified in the approved Odour and Air Quality Complaint Management Plan. All records of carbon filter maintenance and replacement must be made available for inspection by Metro Vancouver Officers for a minimum of 2 years.

Installation of Works and Implementation of Procedures:

No cannabis cultivation, processing or storage can occur until the authorized works and procedures are in place.

FACILITY-WIDE RESTRICTION

Discharge of Odorous Air Contaminants

Notwithstanding any other requirements in this Permit, the discharge of odorous air contaminants from the facility in such a quantity and quality that a Metro Vancouver Officer is able to recognize the facility odour for more than five minutes in any ten-minute period at a distance greater than 70 m from the facility fence line is prohibited.

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SECTION 2 – GENERAL REQUIREMENTS AND CONDITIONS

A. 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.

B. NOTIFICATION OF MONITORING NON-COMPLIANCE

The District Director must be notified immediately of 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. Notification must be made to Metro Vancouver's 24-hour number: 604-436-6777, or to regulationenforcement@metrovancouver.org.

C. 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.

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.

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; and
3. Take appropriate remedial action for the prevention or mitigation of pollution.

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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

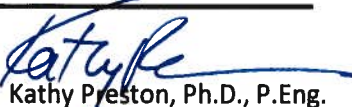
The terms and conditions of this permit may be amended, as authorized by applicable legislation. New works, procedures or sources or alterations to existing works, procedures or sources must receive authorization in advance of operation.

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 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.

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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.

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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 regulationenforcement@metrovancover.org).

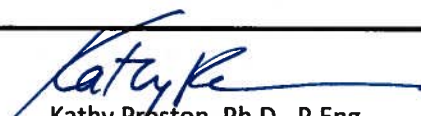
Unless otherwise specified, sampling must be performed under operating conditions representative of the previous 90 calendar days of operation. All field data and calculations must be submitted with monitoring results and they must be reported in the metric units that are used in this permit. These submissions 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.

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

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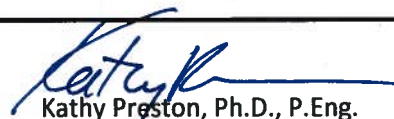
METRO VANCOUVER REGIONAL DISTRICT AIR QUALITY MANAGEMENT PERMIT

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 TITLE/ TYPE
1	March 31, 2021	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 written bound log or other format approved in writing by the District Director and made available for inspection by Metro Vancouver staff for a minimum period of three years.	Operating Period
1	March 31, 2021	On or before March 31 for each subsequent year.	Written report providing details of all carbon filter maintenance and replacement activities in the preceding calendar year.	Carbon Filter Maintenance and Replacement Information - Other
1	April 30, 2021	Quarterly, on or before April 30, July 31, October 31 and January 31 of each year, ending April 30, 2023.	Written report providing the status, timeline, and subsequent verification, for the installation of control works specified in Section 1 - Authorized Emission Sources. The report must also include the initial date cannabis will be cultivated, processed or stored.	Status Report - Control Works and Commissioning Information - Other
Facility	April 30, 2021	Quarterly, on or before April 30, July 31, October 31 and January 31 of each year.	Submit a written report detailing the total number of plants cultivated in the facility in the preceding calendar quarter. Detailed records are to be maintained in a format approved by Metro Vancouver.	Quarterly Throughput Report Information - Other

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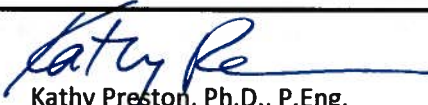

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EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	REPORT TITLE/ TYPE
Facility	May 31, 2021	On or before May 31 for each subsequent year.	<p>Submit for review, comment, and written approval by the District Director an Odour and Air Quality Complaint Management Plan that must include, but is not limited to, activities and procedures surrounding odour prevention, accountability, progressive odour mitigation, and complaint management.</p> <p>The plan, prepared by a Qualified Professional*, must:</p> <ul style="list-style-type: none"> • Identify all existing and proposed sources likely to emit odorous air contaminants, including during both normal and abnormal conditions (meteorological and operational) • Specify a minimum frequency for carbon filter replacement based on manufacturer specifications or laboratory analysis of a used representative carbon filter to determine the remaining life of the other carbon filters • Specify monitored parameters (operational and/or environmental), including their trigger levels, that will be used to initiate corrective actions when trigger levels are reached • Specify corrective actions to be implemented in case of process malfunction when trigger levels are reached and a method of evaluating corrective actions for effectiveness • Specify an odour contingency response plan with actions to be implemented if corrective actions are not successful • Specify procedures for odour complaint tracking, recording and management, including, but not limited to, community field assessments and correlation with meteorological conditions and plant operations 	<p>Odour and Air Quality Complaint Management Plan</p> <p>Information - Other</p>

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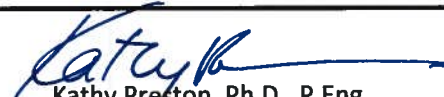

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EMISSION SOURCE	INITIAL DUE DATE	SUBSEQUENT DUE DATES	REQUIREMENT	REPORT TITLE/ TYPE
			<ul style="list-style-type: none"> • Specify a procedure for response to public complaints (including those received by Metro Vancouver and forwarded to the facility) regarding odours originating from the facility • Specify a procedure for forwarding of complaints received directly by the facility to Metro Vancouver via regulationenforcement@metrovancover.org. <p>Subsequent annual submissions, provided for review, comment and written approval by the District Director, must consider any recommended updates to the plan and a summary of any findings, responses, and proposed remedial actions as outlined by the plan. Annual updates to the plan must also reflect any operational changes undertaken in the previous calendar year, including equipment and process upgrades.</p> <p>* As submitted by the permit holder using 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.</p>	

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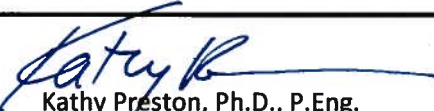
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C. AMENDED OR ADDITIONAL REQUIREMENTS

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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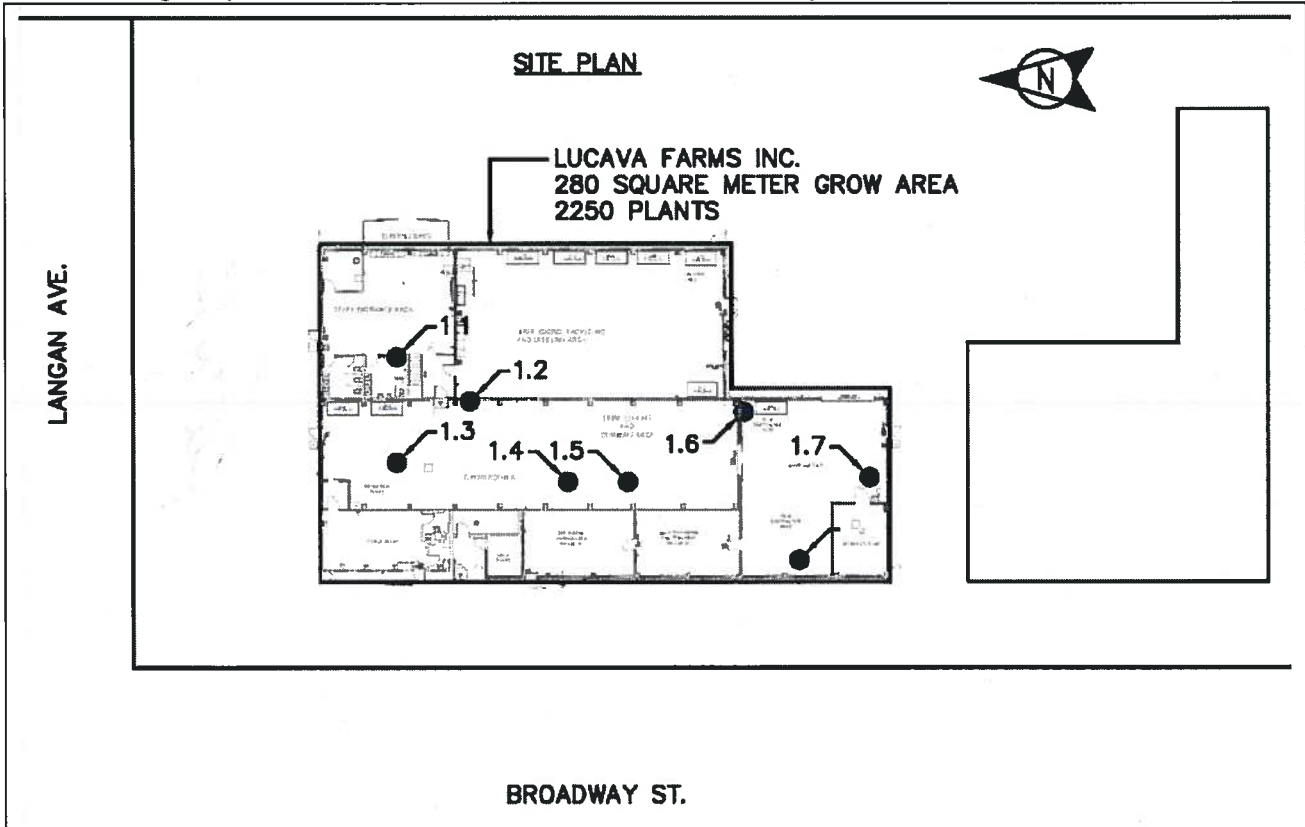
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SECTION 4 – SITE PLAN

LEGAL DESCRIPTION OF DISCHARGE SITE: Parcel Identifier 008-615-390 Lot 44 District Lot 288 Group 1 New Westminster District Plan 39466

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



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