LICENCE C022

Pursuant to:
The Integrated Solid Waste and Resource Management Plan for Metro Vancouver and the Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996 (as amended) and the BC Environmental Management Act, S.B.C. 2003, c.53

Issued to:
Hop Compost Ltd.
(the “Licensee”)

To Authorize:
the operation of a Composting Facility

Located at:
1328 Marine Drive SE, Vancouver, BC VSX 4K4
(the “Facility”)

Effective Period:
The terms and conditions set out in the Licence apply to the existing or planned Facility as of
September 22, 2016

Issued: September 22, 2016

Rick Laird
Deputy Solid Waste Manager
1. GENERAL

If any portion of this Licence is deemed ultra vires, illegal, invalid or unenforceable in any way in whole or in part by any court of competent jurisdiction, such decision shall not invalidate or void the remainder of this Licence, the parts so held to be ultra vires, illegal, invalid or unenforceable shall be deemed to have been stricken therefrom with the same force and effect as if such parts had never been included in this Licence or revised and reduced in scope so as to be valid and enforceable.

2. DEFINITIONS AND INTERPRETATION

In this Licence terms defined in the Bylaw shall have the same meaning for the purpose of this Licence unless otherwise defined in this Licence and,

"Compostable Material" means any organic material, substances, or objects that can be used for composting, and does not include Finished Compost.

"Composting" means the biological decomposition of organic materials, substances or objects under controlled circumstances to a condition sufficiently stable for nuisance-free storage and safe use in land applications.

"Environmental Management Act" means the Environmental Management Act, S.B.C. 2003, c. 53 as such Act exists or may be amended from time to time.

"Finished Compost" means compost that has biologically decomposed to a sufficient degree that the product has beneficial value to plant growth, and can be stored, handled and used without giving rise to odour or self-heating problems, even if it should become wet. "Finished Compost" must be highly stabilized indicated by the following:

(1) the product will not reheat upon standing to greater than 20 degrees Celsius above ambient temperature, or
(2) the product has shown a reduction of organic matter of greater than 60% by weight.

"Food Waste" means recyclable food for humans including meat, fish, fat, dairy products, bread, baking products, fruits, and vegetables, whether cooked or uncooked that has been diverted from residential, commercial and institutional sources but does not include liquids such as fruit drinks, milk, soft drinks, etc.

"GVS&DD" means Greater Vancouver Sewerage and Drainage District.
"Hazardous Waste" shall have the same meaning as defined by the Environmental Management Act Hazardous Waste Regulation, B.C. Reg. 63/88

"Municipal Solid Waste" shall have the same meaning set out in section 23 of the Environmental Management Act

"Quantity" (singular or plural) includes any gases, liquids, or solids intermingled with Municipal Solid Waste and Recyclable Material

"Recyclable Material" shall have the same meaning as defined in the Bylaw

"Residual Waste" means solid waste remaining after reduction, reuse, recycling, recovery, or other activities conducted at a Facility, for which disposal is required

3. MATERIAL BANS

Disposal of the following materials are banned or restricted. They are either recyclable or hazardous.

- Yard Waste
- Newspapers
- Corrugated Cardboard
- Office Paper
- Gypsum Waste
- Lead Acid Batteries
- Electronic Waste
- Paints Solvents and Flammable Liquids
- Clean Wood Waste
- Medications/Pharmaceuticals
- Blue Box Recyclable Material
- Beverage Containers (all except milk)
- Tires
- Oil Filters and Empty Oil Containers
- Pesticides, Solvents and other Household Hazardous Waste
- Mattresses
- Food Waste

All reasonable efforts shall be made to recover Recyclable Material from all materials received at the Facility, for the purpose of recycling.

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4. FACILITY

4.1. Location of Authorized Facility

The operation of the Facility to which this Licence applies is restricted to the eastern most 26.14 metres of the land legally described as Parcel Identifier: 006-543-260, Block G N313FT, Plan VAP3402, District Lot 327, Group 1, New Westminster Land District, Except Plan PT REF PL 7115 & PT IN HIGHWAY PL 116, N 313 FT OF BLOCK G, EXC W 33 FT.

4.2. Access

The Licensee shall provide locking gates on all entrances to prevent unauthorized access and ensure that they are locked at all times the Facility is unattended. Access routes to and through the Facility shall be constructed from suitable material satisfactory to the Solid Waste Manager and capable of providing all weather access for all emergency vehicles. The Licensee may be required by the Solid Waste Manager to provide fencing, trees, shrubbery, or natural features so as to limit access to the Facility.

4.3. Signage

The Licensee shall ensure that at all times the Facility has a sign posted at the entrance clearly identifying the name and address of the Facility, owner and operator, contact phone number, emergency phone number, hours of operation and information on acceptable and unacceptable materials. This sign shall be of a size and have print that is easily readable from the Facility entrance. Additional signs which clearly indicate the direction to the active receiving areas, tipping area, recycling and waste separation areas, etc. may be required by the Solid Waste Manager.

4.4. Communications

The Licensee shall ensure that at all times the Facility has telephone or other communication equipment to immediately summon fire, police or emergency service personnel in the event of an emergency.

4.5. Facility Works

The works pertaining to this Licence include, but are not limited to:

- a centrifugal exhaust fan for each Composting unit, mounted directly adjacent to the biofilter
- auger for movement/ mixing of materials
- biofilters
- electrical control system to monitor and control conditions inside the vessels
- enclosed curing bunkers

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- enclosed receiving hopper
- two enclosed in-vessel Composting units

The Licensee shall ensure that all facility works are maintained in good working order at all times. The Solid Waste Manager may require the Licensee to repair, alter, remove, improve or add to works or construct new works.

5. OPERATING REQUIREMENTS

5.1. Acceptable Material

The Facility may accept for composting purposes the following types of Compostable Material which are considered Municipal Solid Waste:

(1) Food Waste
(2) wood chips - from clean uncontaminated wood
(3) other materials specifically authorized in writing by the Solid Waste Manager and such authorization shall be deemed to form part of this Licence.

5.2. Unacceptable Material

The Facility shall not accept:

(1) any other waste not authorized in Section 5.1 of this Licence and specifically not:
(2) Hazardous Waste
(3) abattoir waste, dead animals, fish hatchery waste, manure
(4) food packaging
(5) GVS&DD wastewater treatment plant grit, screenings, sludge

Unacceptable Material entering the Facility or observed upon receipt at the Facility shall be refused and removed by the hauler. Unacceptable Material discovered at a later time, must be segregated from other waste material and removed within 48 hours of its discovery, unless a separate legislative regime applies with respect to removal, such as that applicable to Hazardous Waste.

5.3. Quantities

The Quantity limits outlined in this Licence apply regardless of the state, condition, or form of the Municipal Solid Waste and Recyclable Material.

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The Quantities that may be accepted at the facility must not exceed:

(1) Compostable Material 5.5 metric tonnes per day
(2) Compostable Material 2,000 metric tonnes per year

The Quantity of Compostable Material that may be at the Facility at any given time must not exceed 125 metric tonnes or 363 cubic metres.

The Solid Waste Manager may require the Licensee to retain a British Columbia Land Surveyor, or other qualified professional satisfactory to the Solid Waste Manager, to carry out a survey of the Quantity of Municipal Solid Waste and Recyclable Material at the Facility, and submit the results of the survey to the Solid Waste Manager. If the survey results indicate the Quantity of Municipal Solid Waste or Recyclable Material at the Facility exceeds the authorized volume in cubic metres, the Licensee must refrain from accepting the specified Municipal Solid Waste or Recyclable Material until such time as the Quantity is less than the authorized volume in cubic metres.

5.4. Weigh Scale

The Licensee must operate and maintain a weigh scale that records in 10 kg increments and is approved by Consumer and Corporate Affairs – Weights and Measures Section. All loads of Municipal Solid Waste and Recyclable Material received at the Facility and all loads of Recyclable Material and Residual Waste removed from the Facility must be weighed and recorded.

5.5. Supervision and Load Inspection

An attendant employed by the Licensee shall be present at all times that the Facility is open for business or accepting material and must inspect every load entering the Facility before and after unloading to ensure it complies with the requirements of this Licence before mixing with any other loads. A record shall be maintained of rejected loads including date, time, type of material, hauler’s name, and vehicle licence number.

5.6. Material Handling and Storage

The Licensee shall tip incoming Food Waste and wood chips into the receiving hopper where the material is weighed. All Food Waste received is to be tipped into the receiving hopper by the end of the receiving hours on the day it is received. No more than 30 cubic metres of wood chips are to be stored at the Facility in a designated enclosed curing bunker.

Composting may only be carried out in the in-vessel Composting units, located inside the building. The hopper of the in-vessel Composting units is to regulate feedstock additions as a continuous process. The Licensee shall blend the Compostable Material to an appropriate carbon: nitrogen ratio which will be

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moved by the auger towards the discharge point. Compostable Material is to take eight to twelve days to pass through the Composting unit. The processing chamber shall be mechanically aerated to ensure aerobic Composting. The Licensee shall ensure appropriate moisture, porosity, temperature and oxygen levels are maintained during the active Composting process. Air is to be continually drawn from the Composting unit using a centrifugal fan, and treated through a biofilter.

The Composting Material will be discharged via an enclosed auger into an enclosed aerobic bunker to finish the curing process. The curing bunkers are to be constructed of three cement block walls and the fourth wall of stainless steel fencing lined with finely perforated mesh. The bunkers are to be sealed by a 100% UV resistant polypropylene cover. The material discharged from the vessel will be mature as validated through Solvita readings. In addition CO₂ will be less than 10mg CO₂/g. The curing process will last for at least 30 days. The curing piles are to be no more than 3 metres high, 5.5 metres deep, and 2.5 metres wide. The curing piles will be turned every 4 to 8 hours during receiving hours. The piles will be turned by a telehandler. The fence fronts will be opened, the cover will be removed, the telehandler equipped with a bucket will extend its bucket into the pile, raise the contents, and drop the contents back in the bunker. Once finished the telehandler will retract its bucket, the cover will be replaced and the fence fronts will be closed. This process is to ensure the pile does not go anaerobic.

Once the curing process is complete Finished Compost will be screened in the production wing inside the building, to remove oversized particles, and then packaged for market sale.

Large access doors are to remain closed unless access to deliver Compostable Material, wood chips, and Finished Compost is brought into the production wing for screening or Finished Compost or Residual Waste is being removed.

The Licensee shall load Residual Waste into a designated bin, which has a lid, at the Facility. The Licensee shall dispose of Residual Waste at appropriately authorized facilities.

Quantities of all materials entering or leaving the Facility are to be recorded.

5.7. Drainage

The Licensee shall take measures to prevent precipitation contacting Municipal Solid Waste and Recyclable Material at the Facility and prevent uncontrolled run off.

This Licence does not authorize the discharge of liquid waste from the Facility to the sanitary sewer, storm sewer or the environment.

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5.8. Hours of Operation

Subject to municipal bylaws, zoning requirements, or the notification provided for below, the Facility shall only operate or allow access to vehicles transporting Municipal Solid Waste or Recyclable Material to the Facility as follows:

Operating Hours:
- Monday to Sunday: 24 hours

Receiving Hours:
- Monday to Sunday: 9:00 AM to 5:00 PM

The Licensee must notify the Solid Waste Manager (facsimile number: 604-436-6707) in writing during regular business hours at least 24 hours in advance of operating outside of these specified times. Notices received outside of regular business hours will be deemed to have arrived at the beginning of the next business day. This notice must include the specific date and times that the activity will occur outside of these hours. The Licensee must also notify the municipality in which the Facility is located of any changes to these specified times.

5.9. Monitoring and Assessments

The Licensee may be required by the Solid Waste Manager to undertake or provide the following monitoring or assessment requirements, including, but not limited to:

1. an environmental impact assessment,
2. a survey of waste Quantities,
3. groundwater, surface water, run-off, or leachate monitoring, and
4. any other investigations, tests, or other actions in accordance with methods and procedures approved by the Solid Waste Manager.

Any assessments, investigations, tests, surveys and other actions may be required by the Solid Waste Manager to be undertaken by an independent third party acceptable to the Solid Waste Manager.

5.10. Area Maintenance, Vector and Nuisance Controls

1. The Licensee must maintain public and private roadways within 100 metres of the Facility free from litter, mud or debris which may be directly attributed to the Facility, its customers, or its suppliers.
2. The Licensee must control litter by way of litter control fences or barriers, litter pickup, or any other measures deemed necessary by the Solid Waste Manager.

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(3) Vectors must be controlled by way of best operating practices, pest controls or any other measures deemed necessary by the Solid Waste Manager.

(4) The Licensee must prevent nuisance occurrences by way of best operating practices, control works or any other measure deemed necessary by the Solid Waste Manager.

This Licence does not authorize the discharge of air contaminants, including dust and odourous substances, from the Facility.

5.11. Burning Prohibited

Burning of any material at the Facility is prohibited.

5.12. Fire Protection

The Licensee shall provide and maintain an adequate water supply or equivalent on site for extinguishing any fires, should they occur.

In the event of a fire the Licensee shall:

1. immediately notify the local fire department and the Solid Waste Manager (telephone number: 7:30 AM – 11:30 PM 604-436-6777, 11:30 PM – 7:30 AM 604-643-8488, facsimile number: 604-436-6707, email: regulationenforcement@metrovancouver.org), and

2. take all measures necessary to extinguish the fire.

5.13. Emergency Conditions

In the event of an emergency or condition beyond the control of the Licensee which prevents the effective operation of the Facility or works the Licensee shall:

1. immediately notify the Solid Waste Manager (telephone number: 7:30 AM – 11:30 PM 604-436-6777, 11:30 PM – 7:30 AM 604-643-8488, facsimile number: 604-436-6707, email: regulationenforcement@metrovancouver.org), and

2. take all necessary action to resolve the emergency or condition to return the Facility to effective operation.

Notwithstanding 1 and 2 above, the Solid Waste Manager may specify contingency actions to be implemented while the works and/or standard operating procedures are being restored.

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5.14. Closure Plan

The Licensee must notify the Solid Waste Manager of plans and dates regarding the closure of the Facility. This notification is to occur at least 30 days prior to the closure of the Facility. The Licensee must provide all haulers 30 days notice to find alternative Municipal Solid Waste and Recyclable Material facilities, prior to closure of the Facility. In the event of permanent closure, all equipment shall be dismantled and removed from the Facility, materials ready for market shall be shipped, and any Municipal Solid Waste shall be disposed of at an authorized facility.

6. INSPECTIONS

6.1. Inspections

The Licensee must conduct regular inspections of the Facility. These inspections are to include building, machinery, Facility Works, equipment, site drainage, security features, nuisance control works, vector abatement systems and litter controls. The Licensee must ensure all are maintained in good working condition. The results of the inspections are to be recorded. Any defective conditions must be corrected or repaired promptly. In addition, routine maintenance on machinery and equipment must be conducted as specified by the manufacturers and recorded. Inspection reports and routine maintenance records shall be retained for a minimum of three (3) years and made available for examination if required by the Solid Waste Manager or an Officer.

7. REPORTING

7.1. Quarterly Reporting of Quantities

The Licensee shall record the Quantity and type of Compostable Material received at the Facility, the Quantity of Finished Compost and Residual Waste for disposal, shipped from the Facility each day. Records of monthly Quantities of Compostable Material received, Finished Compost shipped, and Residual Waste disposed from the Facility shall be submitted to the Solid Waste Manager on a quarterly basis by the end of January, April, July and October of each year for the preceding calendar quarter of operation.

The reports shall be submitted electronically using the supplied password-enabled web based application.

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7.2. Record Keeping

The Licensee must retain, for the previous three (3) years of operation, the following at 1328 Marine Drive SE, Vancouver and must produce the same for examination if required by the Solid Waste Manager or an Officer:

1. a copy of this Licence
2. copies in electronic or hard-copy form of records and other evidence for the previous three years of operation relating to the Quantity and type of:
   a) Compostable Material received at the Facility,
   b) residues or rejected material from the composting Facility delivered to a disposal facility
   c) Finished Compost shipped from the Facility
3. records of inspections of the Facility, building, Facility Works, machinery, equipment, site drainage, security features, nuisance control works, vector abatement systems and litter controls
4. records of rejected loads including date, time, type of material, hauler’s name, and vehicle licence number for the previous year of operation
5. any other records required by the Solid Waste Manager

8. TERMS

8.1. Notification of Change of Ownership or Control of the Licence

The Licensee must notify the Solid Waste Manager of a change in the ownership, or control of the Facility, or any change in control of the Licensee. This notification must be provided at least one month prior to the change. A transfer or assignment of a Licence is without effect without the prior written approval of the Solid Waste Manager.

8.2. Notice

Any notice required to be delivered to the Licensee under this Licence shall be delivered or deemed to have been delivered if such notice is:

1. mailed by registered mail to the registered or records office of the Licensee or to the address the Licensee is authorized to operate,
2. delivered to the registered or records office of the Licensee,
3. delivered to an adult individual at the Facility who appears to be an employee of the Licensee or appears to be in control of the Facility,

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(4) delivered to a director, officer, liquidator, trustee in bankruptcy or receiver manager of the Licensee, or
(5) posted on the door or gate of the Facility, where no one is present at the Facility or the Facility appears to be abandoned.

8.3. Suspension and Cancellation

This Licence may be suspended or cancelled in accordance with the Bylaw.

9. SECURITY AND PERFORMANCE

As a condition of this Licence, the Licensee shall provide and maintain security as described in this Section 9. The security shall remain in place until the Licensee has completed the Facility closure to the satisfaction of the Solid Waste Manager.

9.1. Purpose of Security

The purpose of the security is as follows:

(1) to indemnify the GVS&DD for any expenses arising out of default by the Licensee under this Licence,
(2) to remove, process, treat, or utilize Municipal Solid Waste or Recyclable Material at the Facility,
(3) to control or stop the escape of leachate or contaminated run-off from the Facility,
(4) to remediate the site following a fire at the Facility,
(5) to cover expenses, including legal expenses, incurred by the GVS&DD in
   (a) carrying out the activities described in this section 9, and
   (b) enforcing or complying with any laws or enactments of the GVS&DD as they relate to the administration of this Licence,
(6) to pay outstanding fees required under the Bylaw,
(7) to complete Facility closure, and
(8) to conduct remedial work that may be necessary to rectify a continuing default by the Licensee under this Licence.

To the extent that remedial work is required, the Licensee agrees to permit and grant access to the GVS&DD, its employees, agents and contractors, on and to the site of the Facility to carry out such remedial work as may be necessary.

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9.2. Nature of Security

The security shall be in the amount of $8,375.00 or adjusted pursuant to Section 9.3, and shall be provided and maintained as follows:

(1) The first $5,000.00 shall be provided in the form of cash or an irrevocable Letter of Credit provided by a Canadian Chartered Bank. The Letter of Credit shall be irrevocable and may be drawn upon by written demand of the Solid Waste Manager. The Letter of Credit shall be issued in favour of the Greater Vancouver Sewerage and Drainage District and shall be in a form satisfactory to the Solid Waste Manager, and

(2) The balance of the security shall be provided and maintained in any of the following forms:
   (a) cash,
   (b) an increase in the value of any Letter of Credit provided under subsection (1) to the full amount of the security,
   (c) a trust fund,
   (d) a surety bond, and
   (e) any other form satisfactory to the Solid Waste Manager.

The instrument referred to in (b), (c), and (d) shall be provided in a form satisfactory to the Solid Waste Manager.

9.3. Review of Security

The amount of security required under this Licence may be reviewed and adjusted periodically at the sole discretion of the Solid Waste Manager at any time during the term of this Licence.

9.4. Conditions for Drawing on Security

If the Licensee defaults under or fails to comply with any provision of this Licence and does not cure the default or failure within the time specified by the Solid Waste Manager, in a written notice delivered to the Licensee informing the Licensee of such default or failure, the security may be drawn upon and used at the discretion of the Solid Waste Manager, acting reasonably, for the following purposes set out in Section 9.1.

Nothing in this Licence obligates the GVS&DD to draw on any security provided under this Licence or undertake any action to cure any default or failure of the Licensee. The exercise by the GVS&DD of any power to cure any default or failure by the Licensee under this Licence does not create any obligation or liability on the GVS&DD to complete the curing of any default or failure or to complete the Facility closure.
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If all or any portion of the security is drawn upon, the Solid Waste Manager may require the Licensee to replenish or adjust the security as outlined in Sections 9.2 and 9.3.

9.5. Conditions for Returning Security

The security, or any balance remaining after it may have been drawn upon in accordance with the terms of this Licence, will be returned to the Licensee upon the Licensee completing the Facility closure to the satisfaction of the Solid Waste Manager.

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10. SITE PLAN(S)

Hop Compost Ltd. Site Plan

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