

State of Washington Department of Ecology
Notice of Construction Approval Order

In the matter of making revisions)	DRAFT Approval Order No.
to an existing source for Dirt)	14AQ-C191 Third Revision
Hugger LLC)	AQPID No. B0390089

Project Summary

Dirt Hugger LLC, herein referred to as the Permittee, is an existing compost facility located at 111 E Rockland Rd, Dallesport, Washington, in Klickitat County.

The Permittee is classified as a ‘Synthetic Minor 80 percent’ (SM-80) source for VOC emissions, since its potential to emit is more than 80 percent of the VOC applicability threshold under Title V of the federal Clean Air Act.

The project consists of changes to conditions of the previous Approval Order. Changes include: an increase in allowed feedstock stockpiling; an increase in maximum feedstock throughput; operational changes of the composting Stage one and Stage two process; increased usage of existing equipment; and addition of new equipment.

Legal Authority

The emissions from the proposed project have been reviewed under the legal authority of RCW 70A.15.2210 and the applicable rules and regulations adopted thereunder. The proposed project, if operated as specified, will be in accordance with applicable rules and regulations, as set forth in Chapters 173-400 WAC and 173-460 WAC. The operation thereof, at the location proposed, will not result in ambient air quality standards being exceeded.

This Notice of Construction (NOC) Approval Order rescinds and replaces NOC Approval Order No. 14AQ-C191 Second Revision. NOC Approval Order No. 14AQ-C191 Second Revision is no longer in effect.

Therefore, it is ordered that the project as described in the NOC application and more specifically detailed in plans, specifications, and other information submitted to the Washington State Department of Ecology (Ecology) is approved for construction and operation, provided the following conditions are satisfied:

Approval Conditions

1. Emission Activities and Units

- a. The following emission activities and emission units have been identified and are approved for installation in this NOC Approval Order; the specified ID will be used elsewhere in this Order to identify each unit:

- i. A two-stage composting process:

ID	Emission Activity
Stockpiling	Stockpiling of feedstock materials, with emissions controlled by finished-compost cover.
Stage 1	Active composting using a turned aerated pile process, in a shifting mass-bed. Emissions collected and controlled by negative aeration to a biofilter.
Stage 2	Active composting and curing in place using aerated static piles. Emissions controlled by a finished-compost cover.

- ii. The following diesel-fired engines operated as stationary-sources¹:

ID	Equipment Make, Model, & Description	Engine Make	Engine Model	Engine Rating (bhp)	Install Date (year)
E1	Terra Select T60 Trommel Screen	Perkins	854E-E34TA	100	2016
E2	Terra Select T70 Screen	Perkins	854E-E34TA	100	2016
E4	Doppstadt DW 3060 Shredder	MTU	6R 1300	422	2011
E5	Terra Select T70 Screen	Perkins	854E-E34TA	101	2023
E6	Ecoverse SS 604	Caterpillar	JKT04779	35	2023
E7	Ecoverse Ecosift Ventus Separator	Volvo	Penta TAD 57IVE	174	2023
E8	Komptech Hurrikan S	Perkins	3454/1800 Type	73	2023

- b. The T70 Terra Select Wind Sifter, previously identified as 'E3', must be removed from the compost facility by the date of issuance of this Approval Order.

¹ Equipment utilizing 'nonroad engines', as defined under WAC 173-400-030(59), are not subject to minor new source review so long as the engines continue to qualify as nonroad engines.

2. Operational Limitations

a. Production and Operation Limits

- i. Stage one of the composting process must not accept more than 90,000 tons¹ of feedstock per any 12-month period.
- ii. E1 through E8 must each be restricted to the following operational limits, per any 12-month period:

Emission Unit	Maximum Operations (hours) ^a
E1	2,500
E2	3,750
E4	2,000
E5	3,750
E6	5,000
E7	2,500
E8	2,500

^aValues carry four significant figures.

b. Equipment and Activity Restrictions

- i. Feedstock for composting must be limited to the materials listed in Appendix A, unless otherwise prohibited.
- ii. The facility is prohibited from accepting the materials listed in Appendix B as feedstock.
- iii. The stockpile must be limited to a capacity of 5,016 tons of feedstock at all times.
- iv. The negative aeration system must collect at least 98 percent of Stage 1 emissions from the composting process, as measured under Condition 5.f.
- v. E1 through E8 must each be fueled by ultra-low-sulfur fuel containing not greater than 15 parts per million sulfur by weight.

c. Emission Limits

- i. The biofilter must accomplish at least 75.0 percent destruction efficiency of all collected VOC emissions, as measured under Condition 5.f.

¹ All instances of the word 'tons' in this section are on a wet-weight basis, i.e. they are synonymous with 'wet-tons'.

- ii. The biofilter must accomplish at least 21.8 percent destruction efficiency of all collected NH₃ emissions, as measured under Condition 5.f.
- iii. Emissions from E1 through E8 must not exceed the following Tier-4 limits, based on the applicable emission standards of 40 C.F.R. Part 1039:

Pollutants	E1, E2, and E5	E4 and E7	E6 and E8	Units
CO	5.0	3.5	5.0	g/kW-hr
NMHC ^a + NO _x	-	-	4.7	g/kW-hr
NMHC	0.19	0.19	-	g/kW-hr
NO _x	0.40	0.40	-	g/kW-hr
PM	0.02	0.02	0.03	g/kW-hr

^a NMHC = Non-methane hydrocarbons.

- iv. Except during startup, visible emissions from E1 through E8 must not exceed 5 percent opacity, as determined by 40 C.F.R. Part 60, Appendix A, Test Method nine.
- v. There must be no visible emissions from E1 through E8 or any composting operation at the property boundary, as measured by 40 C.F.R. Part 60, Appendix A, Test Method 22.
- vi. The exhaust of each E1 through E8 must contain no greater than 0.10 grains per dry standard¹ cubic foot (dscf) of exhaust gas.

3. Operation and Maintenance

- a. The Permittee must follow all recommended installation, configuration, operation, and maintenance provisions supplied by emission unit and component manufacturers.
- b. An operations and maintenance (O&M) manual must be developed by the Permittee for each emission unit, compost process, and emission activity. The manufacturer's instructions may be referenced in the O&M manuals.
 - i. The O&M manuals must include the following, at a minimum:
 - A. Normal operating parameters for each emissions unit, process, and activity.
 - B. A maintenance schedule for each emissions unit, process, and activity.
 - C. A description of the monitoring procedures.
 - D. Monitoring and record keeping requirements.
 - E. Actions for abnormal control system operation.

¹ "Standard conditions" means a temperature of 20°C (68°F) and a pressure of 760 mm (29.92 inches) of mercury.

- F. Additional project-specific information, as needed.
- ii. The O&M manuals must be developed or updated, as needed, within 30 days of issuance of this NOC Approval Order.
- c. Emission units, compost processes, and emission activities must be operated and maintained in accordance with the O&M manuals.
- d. The Permittee must assess all complaints received. The Permittee must initiate corrective action in response to a complaint within three calendar days of receipt of the complaint.
- e. Stockpiling
 - i. Except as provided in Condition 3.e.ii, all feedstock received at the site must be mixed and placed on the day of arrival, and immediately upon tipping.
 - ii. Wood waste and yard debris, with less than ten percent food waste, may be stockpiled onsite, so long as the stockpile does not emit significant odors.
 - iii. A cover of unscreened finished compost must be applied to the stockpile at the end of each day, where needed, to maintain a cover thickness of at least 12 inches.
- f. Stage 1
 - i. High carbon containing feedstock must be mixed with high nitrogen containing feedstock in proper proportion, with a carbon-to-nitrogen ratio of 25:1-30:1, prior to compost bed placement.
 - ii. After compost bed placement, the pile must initially be covered with at least 12-inches of unscreened finished compost. No reapplication of the cover is needed after pile turning events.
 - iii. Constant negative aeration must be utilized to control Stage 1 emissions.
 - A. Emissions captured from Stage 1 must be routed to a biofilter for control.
 - B. Each biofilter must be operated and maintained to assure the destruction efficiencies specified under Conditions 2.c.i and 2.c.ii.
 - C. Negative aeration is not required during turning of the bed.
- g. Stage 2
 - i. After compost pile placement, each pile must be covered with at least 12-inches of unscreened finished compost.
 - ii. Each Stage 2 pile must be positively aerated, on at least an intermittent basis, to maintain aerobic conditions.
 - iii. Compost may be removed from Stage 2 piles once the material has passed the process to further reduce pathogens (PFRP) and has reached a stable level (testing

performed using Solvita lab test reaching minimum level of five for ammonia, or minimum of six for carbon dioxide).

h. Odors

- i. The Permittee must prevent off-site odors. Odors must be prevented by maximizing aerobic composting and operating according to the approved Operation Plan.
- ii. In the event that odor is detected beyond the property boundary following remedial action, Ecology may order the Permittee to take prescribed measures to control odor. These measures may include, but are not limited to:
 - A. Operational changes to minimize odor.
 - B. Reduction of the quantity or types of material composted or stored onsite.
 - C. Enclosure of feedstock, mixing, or composting operations.
 - D. Elimination of the stockpiling allowed by Condition 3.e.ii when materials contain food waste.
- iii. If a feedstock proves to be a significant source of off-site odors, that feedstock must no longer be allowed.
- iv. If a compost bed continues to emit off-site odors, despite efforts to control them, the compost bed must be hauled away for disposal as soon as possible, except that the compost bed must not be disturbed during temperature inversion or periods of calm winds.
- v. In the event that an odor complaint is received, the Permittee must comply with Condition 3.d.

i. Fugitive Dust

- i. Fugitive dust must be managed in accordance with a site-specific Fugitive Dust Control Plan (FDCP).
- ii. Grinding, mixing, and turning must be done with adequate moisture to prevent visible emissions and at wind speeds such that material isn't blown across the site.
- iii. The Permittee must take reasonable precautions to prevent fugitive dust from becoming airborne and must maintain and operate the facility to minimize emissions.
- iv. All areas on which travel by vehicles routinely occurs must be covered with crushed stone or paved and must be regularly controlled with water and/or chemical dust suppressants.
- v. Track out must be minimized for all vehicles leaving the site. This may include tire washing, road sweeping, road washing, or other methods, as needed.

4. Monitoring and Recordkeeping

- a. The O&M manuals, the FDCP, and the Operation Plan approved by the Klickitat County Public Health Department must be reviewed annually.
 - i. The date of each review and the person performing each review must be documented in the O&M manual.
 - ii. The O&M manuals and FDCP must be updated to reflect any modifications to emission units or operating procedures.
- b. O&M records, the FDCP, and the Operation Plan must be kept on premises in hard copy or readily available on-site electronically.
- c. For all air-quality related complaints, the following records must be kept:
 - i. A written record of the complaint received by the Permittee or forwarded to the Permittee.
 - ii. The Permittee's action to investigate the validity of the complaint, any corrective action that was taken in response to the complaint, and the effectiveness of the remedial action.
- d. The date, time, duration, and cause of any periods where control technology equipment is out of service must be documented and maintained.
- e. All data required by this NOC Approval Order must be maintained in a readily retrievable manner for a period of five years and must be made available to authorized representatives of Ecology upon request.
- f. The Permittee must complete any additional monitoring or recordkeeping necessary to determine compliance with the requirements of this NOC Approval Order, as determined by Ecology.
- g. The negative aeration system must be monitored on a daily basis to assure emission capture according to Condition 2.b.iv is maintained.
- h. The Permittee must keep the following daily records:
 - i. The quantity (weight) and type of each feedstock received for composting.
 - ii. When each feedstock was received.
 - iii. The location and length of time feedstock was stored prior to commencement of composting.
- i. The Permittee must maintain a plan to monitor negative aeration system parameters.
 - i. Parameters must include at least biofilter moisture, temperature, and pH, as well as the pressure drop across fans leading to the biofilters.
 - ii. Records of parameter monitoring must be maintained.

- j. For stockpiling and composting:
 - i. Temperature for the stockpile and each compost bed must be measured and recorded in accordance with the Operations Plan.
 - ii. All Solvita Jar-Test and stability rating laboratory test results must be kept.
 - iii. Records must be kept of the feedstock accepted each month.
 - iv. Records must be kept of the feedstock accepted for the most recent 12-month period, calculated on a rolling monthly basis.
- k. The biofilters must be inspected on a weekly basis to assure: adequate media presence in each filter; adequate filter media moisture; and absence of air channeling in each filter. The Permittee must keep records of the personnel performing inspections, the results of each inspection, and any maintenance performed as a result of an inspection.
- l. For E1 through E8:
 - i. If an engine is equipped with a diesel particulate filter to comply with the emission standards listed under Condition 2.c.iii, the diesel particulate filter must be installed with a backpressure monitor that notifies the operator when the high backpressure limit of the engine is approached.
 - ii. The Permittee must keep records of any corrective action taken after a backpressure monitor has notified the operator that the high backpressure limit of the engine is approached.
 - iii. The Permittee must keep records of the amount and type of fuel used.
 - iv. The Permittee must keep records of annual engine usage calculated on a rolling 12-month basis.

5. Testing

- a. No initial or periodic source testing is required by this Order.
- b. The Permittee must submit a test plan to Ecology for review and approval at least 60 days prior to source testing. Ecology may require a new protocol for re-test events conducted after a failed source test, when required, and Ecology may approve a shorter timeframe for submission for the re-test protocol. The test plan must include the following information, at a minimum:
 - i. Identification of each process, activity, and emission unit to be tested.
 - ii. The operating parameters to be monitored during the test.
 - iii. A description of the activities, processes, and emission units to be tested.
 - iv. The time and date of the proposed source test.
 - v. Identification and qualifications of the source test personnel.

- vi. A description of the test methods and procedures to be used.
- c. Test reports must be submitted to Ecology within 60 days of completion of the source testing. Test reports must include the following information, at a minimum:
 - i. The information described under Condition 5.b.
 - ii. The information described in the test plan and any subsequent test plan approval letters.
 - iii. Field and analytical laboratory data.
 - iv. Quality assurance/quality control procedures and documentation.
 - v. Analyzer data recorded during the test.
 - vi. A summary of results, reported in units and averaging periods consistent with the applicable emission limit.
 - vii. A summary of control system and equipment operating conditions.
 - viii. Copies of all field data.
 - ix. Chain of custody information.
 - x. Calibration documentation.
 - xi. Discussion of any abnormalities associated with the results.
 - xii. A statement signed by the senior management official of the testing firm certifying the validity of the source test report.
 - xiii. Emission calculations.
- d. The Permittee must provide adequate sampling ports, safe sampling platforms, and access to platforms and utilities for sampling and testing, in accordance with 40 C.F.R. 60.8, 40 C.F.R. 63.7(d), and WAC 173-400-105(4).
- e. When information obtained by Ecology indicates the need to quantify emissions, Ecology may require the Permittee to conduct material analysis or air emission testing under WAC 173-400-105. This testing requirement is in addition to any testing required by Ecology in this NOC Approval Order, other permits, or other state or federal requirements.
- f. If source testing of compost activities is performed:
 - i. Surface emissions must be measured as specified in Section 8 of Attachment A to South Coast Air Quality Management District (SCAQMD) Rule 1133.3, adopted July 8, 2011.
 - ii. SCAQMD Method 25.3 must be used to determine the total VOC (or total non-methane non-ethane organic compounds) content of the compost emissions.
 - iii. SCAQMD Method 207.1 must be used to determine the NH₃ content of the compost emissions.

- iv. The test must quantify and account for pile venting, i.e. instances of increased pile emissions associated with unequal gas channeling or temperature profiles within the pile.
- g. If source testing of engines is performed, Ecology will specify the required number of runs and the testing procedures, methods, duty cycles to be utilized.
- h. Alternate test methods and procedures may be proposed by the Permittee for Ecology review; a justification for the change must be included. Proposed alternates must not be utilized unless an approval is issued by Ecology, in writing, prior to the test.

6. Reporting

- a. All notifications, plans, reports, and other submittals must be submitted in a manner approved by Ecology.
- b. The Permittee must notify Ecology's Air Quality Program within one business day of any of the following events occurring:
 - i. All air quality related complaints.
 - ii. The start of any composting-related fires, including those that may occur in the stockpile or in one of the biofilters.
 - iii. Any instance of negative aeration system failure lasting more than 24-hours.
- c. The Permittee must notify Ecology's Air Quality Program of any instances where prohibited feedstock materials are accepted within three days of such acceptance.

7. General Conditions

- a. **Activities Inconsistent with this Order** - Any activity undertaken by the Permittee, or others, in a manner that is inconsistent with the data and specifications submitted as part of the NOC application or this NOC Approval Order, must be subject to Ecology enforcement under applicable regulations.
- b. **Availability of Order** - Legible copies of this NOC Approval Order and any O&M manual(s) must be available to employees in direct operation of the equipment described in the NOC application and must be available for review upon request by Ecology.
- c. **Compliance Assurance Access** - Access to the source by representatives of Ecology or the United States Environmental Protection Agency (EPA) must be permitted upon request. Failure to allow access is grounds for enforcement action under the federal Clean Air Act or the Washington State Clean Air Act and may result in revocation of this NOC Approval Order.
- d. **Discontinuing Construction** - Approval to construct or modify a stationary source becomes invalid if construction is not commenced within eighteen months after

receipt of the approval, or if construction is discontinued for a period of 18 months or more. The permitting authority may extend the 18-month period upon a satisfactory showing by the permittee that an extension is justified.

- e. **Equipment Operation** - Operation of the facility must be conducted in compliance with all data and specifications submitted as part of the NOC application and in accordance with O&M manuals, unless otherwise approved in writing by Ecology.
- f. **Registration** - Periodic emissions inventory and other information may be requested by Ecology. The requested information must be submitted within 30 days of receiving the request, unless otherwise specified. All fees must be paid by the date specified.
- g. **Violation Duration** - If the Permittee violates an approval condition in this NOC Approval Order, testing, recordkeeping, monitoring, or credible evidence will be used to establish the starting date of the violation. The violation will be presumed to continue until testing, recordkeeping, monitoring, or other credible evidence indicates compliance. A violation of an approval condition includes, but is not limited to, failure of air pollution control equipment, failure of other equipment resulting in increased emissions, or a failed source test indicating an exceedance of an emission limit.
- h. **Outdoor Burning** - There must be no outdoor burning.
- i. **Obligations Under Other Laws or Regulations** - Nothing in this NOC Approval Order must be construed so as to relieve the Permittee of its obligations under any state, local, or federal laws or regulations.
- j. **Maintaining Compliance** - It must not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the operations in order to maintain compliance with the conditions of this NOC Approval Order.
- k. **Changes in Operations** - Changes in operation or discontinued operation may require a new or amended NOC Approval Order.

Authorization may be modified, suspended, or revoked in whole or part for cause, including, but not limited to, the following:

- Violation of any terms or conditions of this authorization.
- Obtaining this authorization by misrepresentation or failure to disclose all relevant facts.

The provisions of this authorization are severable and, if any provision of this authorization or application of any provision to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this authorization, must not be affected thereby.

Your right to appeal

You have a right to appeal this NOV Approval Letter to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt. The appeal process is governed by RCW 43.21B and WAC 371-08. "Date of receipt" is defined in Chapter 43.21B.001(2) RCW.

To appeal, you must do all of the following within 30 days of the date of receipt of this NOV Approval Letter:

- File your notice of appeal and a copy of NOV Approval Letter with the PCHB (see filing information below). “Filing” means actual receipt by the PCHB during regular business hours as defined in Chapter 371-08-305 WAC and -335. “Notice of appeal” is defined in Chapter 371-08-340 WAC.
- Serve a copy of your notice of appeal and this NOV Approval Letter on the Department of Ecology by mail, in person, or by email (see addresses below).

You must also comply with other applicable requirements in Chapter 43.21B RCW and 371-08 WAC.

Address and Location Information

Filing with the PCHB

For the most current information regarding filing with the PCHB, visit: <https://eluh0.wa.gov/> or call: 360-664-9160.

Service on Ecology

Street Addresses:

Department of Ecology
Attn: Appeals Processing Desk
300 Desmond Drive SE
Lacey, WA 98503

Mailing Addresses:

Department of Ecology
Attn: Appeals Processing Desk
PO Box 47608
Olympia, WA 98504-7608

E-Mail Address:

ecologyappeals@ecy.wa.gov

Americans with Disabilities Act Information

Accommodation Requests

To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 360-407-7668 or visit <https://ecology.wa.gov/accessibility>. People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TTY at 877-833-6341.

Dated on this XX Day of <Month>, 202X.

Prepared by:

____ DRAFT _____
Ryan Vicente, PE
Air Quality Program
Department of Ecology
State of Washington



Approved by:

____ DRAFT _____
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