

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF REVISING THE)
AIR QUALITY APPROVAL ORDER FOR) Preliminary Determination of Approval
WASHINGTON STATE UNIVERSITY's) for modifications and operation of
COMPOSTING FACILITY) the WSU Composting Facility

To: Mr. Dwight Hagihara, Executive Director, Environmental Health and Safety
Washington State University, Facility Operations
PO Box 641172
Pullman, WA 99164-1172

On June 6, 2017, Washington State University (WSU) submitted a Notice of Construction Application for modifications to its composting operations. Modifications to the In-Vessel-Composter (IVC) are proposed to run it as three interconnected batch composters. The batch composters will continue to be controlled by a HEPA 0.3 micron filter, followed by gas treatment in a biofilter. The proposal includes composting human remains as an approved feedstock. Composting of human remains is estimated to reduce IVC throughput to 50 tons per year.

Equipment and activities evaluated for this approval include the following:

1. Separation of the continuous In-Vessel-Composter (IVC) into three connected batch composters still controlled by the HEPA filter and biofilters for use to pilot composting of human remains; and existing activities and equipment including:
2. Aerobic Composting on 4.4 acres with
 - a. Up to 12 Aerated Static Piles (90 feet long);
 - b. 1 Aerated Stainless Steel Vessel five ft diameter by 66 ft long (now separated into three batch-operated interconnected rotary composters);
 - c. 1 50 hp blower to force air into or draw air out of compost;
 - d. 3 Biofilters, one 37 ft long by 52 ft wide for the aerated static pile system, two at 8 ft wide by 20 ft long used alone or in parallel for the IVC system;
 - e. Turned windrows used only for finishing compost already composted in the aerobic systems.
3. Diesel Engine Driven Trommel Screen
4. Diesel Engine Driven Wood and Yard Waste Chipper

In relation to the above, the Department of Ecology, State of Washington, pursuant to Revised Code of Washington (RCW) 70.94.152 and Washington Administrative Code (WAC) 173-400-110 and WAC 173-460-040 makes the following determinations:

1. The project, if constructed and operated as herein required, will be in accordance with applicable rules and regulations as set forth in Chapter 173-400 WAC, and 173-460 WAC. The operation of the facility at the location proposed will not result in ambient air quality standards being exceeded.
2. The project, if constructed and operated as herein required, will provide all known, available and reasonable methods of emissions control.

THEREFORE, IT IS ORDERED that the project as described in said Notice of Construction and more specifically detailed in plans, specifications and other information submitted to the Department of Ecology is approved for construction, installation and operation provided the following conditions are met:

APPROVAL CONDITIONS

1. ADMINISTRATIVE

- 1.1. Upon issuance of this approval order (No. 17AQ-E034), Approval Order No. 12AQ-E471 is rescinded and replaced by this order.

2. PRODUCTION

- 2.1. The compost facility shall not exceed a compost production rate of 18,000 tons per year of finished compost on approximately 4.4 acres. Acceptable feedstocks are described in the Whitman County Department of Public Health permit and in the facility Standard Operating Practices (SOPs).
- 2.2. Production of compost from human remains in the IVC is limited to 50 tons per year.

3. OPERATIONAL LIMITATIONS

- 3.1. No feedstocks other than Type 1, Type 2, Type 3, and research quantities of Type 4 wastes as defined in the 2011 WSU Compost Facility SOPs, and WSU agricultural education and research-related animal mortalities, and human remains may be composted by this facility.
- 3.2. All composting shall be conducted in accordance with the Whitman County Department of Public Health Compost Facility Permit.
- 3.3. Turned windrow composting shall only be conducted with compost that has been aerobically composted in the IVCs or the static piles and that satisfies the Health Department's Pathogen Reduction and Vector Reduction requirements prior to being placed in the windrows.
- 3.4. All static pile or in vessel composting conducted by this facility shall be aerobic with air forced into or drawn from the compost and passed through biofilters prior to release to the ambient air.
- 3.5. Aerobic composting shall be performed in aerated static piles or in the three interconnected In-Vessel-Composters (IVCs). All composting emissions shall be treated using the biofilters described in the NOC application.
- 3.6. Composting of animal carcasses or parts shall only occur in the aerated static pile or IVC composting system with composting emissions treated by the biofilter.
- 3.7. Composting of human remains shall occur only in the IVC with emissions controlled using the HEPA filter and the parallel biofilters.

- 3.8. Production of compost from human remains in the IVC is limited to 50 tons per year.
- 3.9. Handling of human remains and of compost from human remains shall be conducted in accordance with criteria and requirements specified by the Department of Health. Those criteria and requirements shall be added to the compost facility O&M manual required by Condition 5 of this approval within 60 days of issuance of this approval.

4. EMISSION LIMITS

- 4.1. Odors from the facility shall not be detectable beyond the facility property line. Recognized good practices and procedures such as those described in the Whitman County Department of Public Health permit and the WSU Compost Facility Standard Operating Procedures shall be followed to ensure composting operations remain aerobic and odors are kept to a reasonable minimum.
- 4.2. The visible emissions of any on-site activities shall not exceed ten percent opacity, averaged over a six minute time period.
- 4.3. There shall be no visible emissions allowed to cross the facility boundaries.

5. OPERATION AND MAINTENANCE MANUAL

- 5.1. A site specific operation and maintenance (O&M) manual shall be developed and implemented for equipment and procedures associated with windrow composting, aerated static pile composting, and in-vessel-composting systems under both positive and negative pressure, and for the biofilters used to control composting gaseous emissions. Manufacturer's instructions may be referenced. The O&M manual shall be reviewed at least annually and updated to reflect any modifications of the equipment or operating procedures. Emissions that result from failure to follow the requirements of the O&M manual or manufacturer's instructions may be considered proof that the facility was not properly operated and maintained.

The O&M manual shall include the most recent Whitman County Department of Public Health permit and WSU Compost Facility Standard Operating Procedures and at a minimum describe:

- normal composting operating parameters, monitoring procedures and frequency
- normal biofilter operating parameters
- normal IVC HEPA filter operating parameters
- biofilter media replacement frequency
- IVC HEPA filter media replacement criteria and frequency
- equipment maintenance schedule
- actions to be taken in the event of observed visible emissions or documented odors beyond the facility boundaries

O&M records for the most recent two years shall be kept at the facility in a readily accessible manner and be available for inspection by Ecology.

6. MONITORING, RECORDKEEPING, AND REPORTING

6.1. At least once per month while the compost facility is operating, or any time visible emissions or fugitive dust are observed, WSU shall perform a survey to determine whether visible emissions and/or fugitive dust are crossing the facility site boundary.

6.1.1. In the event that visible emissions are observed, WSU shall verify that the compost facility is being operated according to standard procedures, that all feasible dust control measures are being taken, and that the fugitive emissions are minimal. If WSU is unable to verify these conditions are met, WSU shall take corrective action.

6.1.2. WSU shall record the date of the survey, name of the observer, the weather at the time of the survey, an indication whether visible emissions/fugitive dust was observed to cross the property boundary, and an assessment of the procedures, dust control measures and the magnitude of the emissions.

6.1.3. If visible emissions are observed crossing the facility boundary, WSU shall submit a report as part of the monthly reporting of deviations.

6.2. Odor evaluations shall be performed daily, when the facility is manned, to determine if odors are detectable at the facility boundary. If odors are present, or odor complaints are received, WSU shall take additional measures to control odors, which may include installation of additional pollution control devices.

6.2.1. Records shall be maintained of daily odor evaluations shall include the name of the person performing the evaluation and an indication of whether any offensive and/or abnormal odors were detected. If odors are detected, records shall include the time, date and duration of the odor, description of the cause of the odor, any corrective action taken and the results of corrective action.

6.2.2. WSU shall submit reports of documented odors as part of the monthly reporting of deviations.

6.3. WSU shall record the quantities and types of feedstocks, and the volume and mass of finished compost produced and include these values with the emission inventory submitted annually to Ecology.

7. GENERAL CONDITIONS

7.1. **Visible Emissions** - No visible emissions shall be allowed beyond the property line, as determined by opacity readings.

7.2. **Commencing/Discontinuing Construction and/or Operations** - This Approval Order shall become invalid if construction of the equipment described in the NOC application is not commenced within eighteen (18) months after receipt of the Approval Order. If construction or operation of a portion or all of the equipment described in the NOC

application is discontinued for a period of eighteen (18) months, the portion of the Approval Order regulating the inactive equipment shall become invalid. Ecology may extend the 18-month period upon a satisfactory showing that an extension is justified.

- 7.3. **Compliance Assurance Access** - Access to the source by EPA or Ecology shall be allowed for the purposes of compliance assurance inspections. Failure to allow access is grounds for revocation of the Approval Order for this project.
- 7.4. **Availability of Approval Order and O&M Manual** - Legible copies of this Approval Order and the O&M manual(s) shall be available to employees in direct operation of the equipment described in the NOC application and shall be available for review upon request by Ecology.
- 7.5. **Equipment Operation** - Operation of the equipment identified in this Approval Order shall be conducted in compliance with all data and specifications submitted as part of the NOC application.
- 7.6. **Operation and Maintenance** – Operation and maintenance of the equipment identified in this Approval Order shall be conducted in accordance with the O&M manual. Emissions that result from failure to follow the requirements of the O&M manual or manufacturer's instructions may be considered proof that the equipment was not properly operated, maintained and tested. At any time that process equipment is operating, the associated pollution control equipment shall be operated as designed and in accordance with the O & M manual.
- 7.7. **Outdoor Burning** - As provided in WAC 173-425, no outdoor burning is allowed at this site unless authorized by Ecology.
- 7.8. **Modification to Facility or Operating Procedures** - Any modification to the equipment described in the NOC application or its operating procedures, contrary to information in the NOC application, shall be reported to Ecology at least 30 days before such modification. Such modification may require a new or amended Approval Order.
- 7.9. **Activities Inconsistent with this Approval Order** - Any activity undertaken by the permittee or others, in a manner that is inconsistent with the NOC application and this Approval Order shall be subject to Ecology enforcement under applicable regulations.

All plans, specifications, and other information submitted to the Department of Ecology relative to this project and further documents and any further authorizations or approvals or denials in relation thereto shall be kept at the Eastern Regional Office of the Department of Ecology in the "Air Quality Controlled Sources" files and by such action shall be incorporated herein and made a part hereof.

Nothing in this approval order shall be construed as obviating compliance with any requirement of law other than those imposed pursuant to the Washington Clean Air Act and rules and regulations thereunder.

A two (2) month testing and break-in period is allowed, after any part or portion of this project becomes operational, to make any changes or adjustments required to comply with applicable rules and regulations pertaining to air quality and conditions of operation imposed herein. Thereafter, any violation of such rules and regulations or of the terms of this approval shall be subject to the sanctions provided in Chapter 70.94 RCW.

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

1. Violation of any terms or conditions of this authorization;
2. Obtaining this authorization by misrepresentation or failure to disclose fully all relevant facts.

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

YOUR RIGHT TO APPEAL:

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

To appeal you must do the following within 30 days of the date of receipt of this Approval Order:

- File your appeal and a copy of this Approval Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Approval Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

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

ADDRESS AND LOCATION INFORMATION: You may file your appeal in person at the street address(es) below, or by mail at the mailing address(es) below:

STREET ADDRESSES

**Pollution Control Hearings Board
1111 Israel Road SW, Suite 301
Tumwater, WA 98501**

MAILING ADDRESSES

**Pollution Control Hearings Board
P.O. Box 40903
Olympia, WA 98504-0903**

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

**The Department of Ecology
Attn: Appeals Processing Desk
P.O. Box 47608
Olympia, WA 98504-7608**

And send a copy of your appeal to:

Karen K. Wood, Section Manager
Department of Ecology, Air Quality Section
Eastern Regional Office
4601 N. Monroe Street
Spokane, WA 99205-1295

*For additional information visit the Environmental Hearings Office Website: <http://www.eho.wa.gov>
To find laws and agency rules visit the Washington State Legislature Website:
<http://www1.leg.wa.gov/CodeReviser>*

DATED at Spokane, Washington this day of , .

PREPARED BY:

Robert Koster
Regional Air Quality Section
Eastern Regional Office
Department of Ecology
State of Washington

APPROVED BY:

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