

Project Description for Order of Approval:

One Six-Zone Primary Compost Pad using Negative Aeration and a Biofiltration System rated at 130,000 cfm, for yard waste and commercial pre-consumer food waste; one Enclosed Zone 7 Compost Pad and 48,000 cfm biofilter, for yard waste and commercial food waste; 12 Secondary Zones using Negative Aeration and a 66,000 cfm biofilter, for secondary composting of materials from zones 1-7; one In-Vessel Gore Cover Technology Composting System rated at 41,000 tons per year, for yard waste and commercial food waste; one 2,500 gallon Treatment and Holding Tank, for fan condensate; one Tipping Building, controlled by a biofilter rated at 18,000 cfm.; and one building for pre-processing, sorting, and grinding, with it and the tipping building extension controlled by a biofilter rated at 35,300 cfm.

Facility Wide Requirements

3. Cedar Grove shall maintain its O&M/EMS plan in accordance with the requirements of Regulation I Section 5.05(c). The plan must address procedures for determining when the Composting Systems, Tipping Building, Grinding Building, and Biofilter Controls are operating properly and the corrective actions that will be taken when they are not.

4. Pursuant to the State Environmental Policy Act, to assure for all the people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings; to attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; and based on Puget Sound Clean Air Agency Board Resolution No 565, Section 14 and WAC 197-11-660; Cedar Grove Composting:

(a) Shall use water drawn from the Aquifer Three, in accordance with the facility's current water right permit and not use water drawn from Aquifer Three in the preparation of feed stocks, nor for moisture addition at any time during the composting or curing process, and;

(b) Shall not discharge to any surface water from its retention ponds, without notification to the Washington Department of Ecology as delineated in its NPDES permit.

(c) Prior to first placement of feedstocks on Zone 7, Cedar Grove Composting:

(1) Shall pave the main site access road to reduce fugitive dust; and

(2) Shall submit and receive Puget Sound Clean Air Agency approval for the following changes to the Environmental Management System (EMS) manual:

i. Describe the procedures that will be used to manage and maintain storm water retention capacity during the various seasons, while using published long range precipitation forecasts, so as not to exceed the King County METRO wastewater discharge permit limits, the Cedar Hills Landfill force main discharge allotment, or the NPDES permit discharge limits.

ii. Describe the backup truck pumping and transport procedures for excess storm waters, to be used in the event that the Cedar Hills Landfill force main allotment is reduced or eliminated, and for periods when electricity is lost after a storm event.

5. Cedar Grove shall conduct one daily inspection of the entire material handling system (e.g. conveyor transfer points, air handling system, conveyor covers, access doors, air handling ducting/piping) to determine if the material handling system is damaged and/or not being maintained in good working order. Cedar Grove shall record the date and start time of each daily inspection in a daily log at the time of the

inspection, and whether any part of the material handling system is damaged and/or not being maintained in good working order. Each entry shall be initialed by the Cedar Grove employee conducting the inspection. If the material handling system is determined to be damaged and/or not maintained in good working order, Cedar Grove shall record the date and time of discovery and date and time of repair on the inspection log. If the damaged material handling equipment or equipment not maintained in good working order is logged as repaired (or associated processing equipment shut down until corrected) within 180 minutes of discovery, this shall not be a reportable deviation.

6. Cedar Grove shall conduct one daily inspection of its entire facility to observe any visible emissions of fugitive dust. If visible emissions are observed, Cedar Grove shall determine if precautions are being taken to minimize the fugitive dust. In addition, Cedar Grove shall conduct two daily inspections to determine if its dust control equipment (e.g. water spray bars, water truck) is being operated in good working order. Cedar Grove shall record the date and start time of each daily inspection in a daily log at the time of the inspection, and whether any visible dust is observed, precautions are being taken to minimize fugitive dust, and dust control equipment is being operated in good working order. Each entry shall be initialed by the Cedar Grove employee conducting the monitoring. If visible emissions of fugitive dust are observed without precautions taken and/or dust control equipment is not being operated in good working order, Cedar Grove shall record the date and time of discovery and date and time precautions were taken and/or repairs completed on the inspection log. Any visible fugitive dust event where precautions are logged as taken, to minimize dust emissions within 20 minutes of discovery (or associated processing/ heavy equipment shut down until corrected), shall not be a reportable deviation. If any dust control equipment that is not operating in good working order is logged as corrected within 60 minutes of discovery (or the source of dust shut down until corrected), this shall not be a reportable deviation.

7. Cedar Grove shall conduct one daily visual inspection of each biofilter to determine if the biofilters are channeling, rifting, short circuiting or not being maintained or operated in good working order. Cedar Grove shall record the date and start time of each daily inspection in a daily log, and whether any biofilter is channeling, rifting, short circuiting or not being maintained or operated in good working order at the time of the inspection. Each entry shall be initialed by the Cedar Grove employee conducting the monitoring. If any biofilter is determined to be channeling, rifting, short circuiting or not being maintained or operated in good working order, Cedar Grove shall record the date and time of discovery and date and time of repair on the inspection log. If any biofilter that is channeling, rifting, short circuiting or not being maintained or operated in good working order is logged as corrected by the end of the day of discovery, it shall not be a reportable deviation.

8. Within 90 days of the date of this Order, Cedar Grove shall install and operate continuous ~~parameter~~ temperature monitoring systems on the east and west secondary biofiltration systems, in addition to the existing continuous temperature monitoring systems on the primary biofiltration systems~~all biofiltration systems~~. The monitoring systems shall measure and record ~~velocity pressures, static pressures, and~~ temperatures on a one-hour average basis. A continuous temperature parameter monitoring plan that delineates locations and monitoring methods for the east and west secondary biofiltration systems and addresses monitor QA/QC, data averaging, data retention, and missing data procedures for temperature monitoring on the upper and lower primary biofilters as well as the east and west secondary biofilters shall be submitted to the Agency for approval within 30 days of issuance of this Order. The continuous temperature monitoring system must be installed within 60 days of receipt of Agency approval of the monitoring plan. Cedar Grove must operate and maintain the continuous temperature monitoring system in accordance with the approved temperature monitoring plan on file with the Agency. Changes to the plan must be approved by the Agency prior to implementation, prior to installation of the continuous parameter monitoring system. This plan shall be submitted to the Agency no later than 30 days after the approval date of this Order. In addition, until the continuous parameter monitoring systems are installed,

~~Cedar Grove shall measure and record these parameters manually at least once per operating day. Manual velocity measurements shall use EPA Reference Method 2 (Type S Pitot Tube). Cedar Grove must take corrective action for any two consecutive 1-hour readings of the biofilter temperature outside of 40°F-120°F. Corrective actions include but are not limited to adjusting fan settings, introduction of heating or cooling air or cooling water to reach 40°F-120°F. Cedar Grove must report any deviations from the continuous temperature monitoring plan QAQC plan, and any temperature deviations which were not successfully corrected within 24 hours and/or any temperature deviation for which no corrective actions were taken in the monthly deviation report as specified in Condition No. 21. Completion of corrective action and demonstrated compliant temperature measurements within 24 hours of a non-compliant reading shall not be considered reportable deviations.~~

9. Cedar Grove shall have the operations of the tipping building, pre-processing/sorting and grinding building, zone 7 building and all biofilters reviewed and evaluated by an independent third party quarterlysemiannually. Cedar Grove must notify PSCAA of the date of the on-site evaluation at least 21 days before the evaluation takes place. Each evaluation shall be no less than 75150 calendar days since the last evaluation and no more than 210405 calendar days since the last evaluation. A copy of the written evaluation report shall be submitted to the Agency no later than 630 days after the evaluation date. Cedar Grove must also submit a summary of initiated corrective action and status of corrective actions taken in response to the on-site evaluation no later than 60 days after the on-site evaluation date. Failure to initiate corrective actions within 60 days of the on-site evaluation date shall constitute a deviation from this Order. Any identified structural deficiencies or biofilter media readings outside of the operational ranges identified in this condition shall be a reportable deviation and shall be out of compliance with this condition until corrective action is completed and a follow-up measurement or documentation of completed corrective action demonstrate compliance, except as follows: Corrective actions completed and followed by retesting of relevant operational parameters which demonstrate compliance with the ranges identified in this condition Nos. 9.b.ii and 9.b.iii, or repair to address structural deficiencies completed within 60 days of the on-site evaluation shall not be considered violations of this condition. The purpose of the on-sitethis evaluation is to review the performance of the emission capture system for these buildings and the biofilter operation and to initiate and complete corrective action. The on-site evaluation shall include, but is not limited to review of:

- (a) Operational condition and integrity of the exhaust/capture system including:
 - (1) Visual inspection of the capture system to identify structural deficiencies. The evaluation must identify corrective actions needed to correct any deficiencies.
 - (2) Engineering assessment that demonstrates that the emissions from the tipping and grinding buildings are under negative ventilation. The evaluation must evaluate whether the capture systems are overcoming pressure losses produced by each biofilter's condition and measure flow rate of the capture system biofilter intakes.
 - (3) Demonstration that the measured flow rates are meeting the minimum specified flow in Condition No. 14 and identify corrective actions needed to correct any deficiencies.
- (b) Operational condition and integrity of the biofiltration system including:
 - (1) Visual inspection of each biofilter based on a structural assessment. The inspection must identify structural deficiencies such as compaction, channeling, shrinking, crevassing, and vegetation growth. The evaluation must identify corrective actions needed to correct any structural deficiency of a biofilter.
 - (2) Testing the media to ensure that each biofilter is adequately biodegrading emissions. Testing of the media must test for the following parameters: moisture content, free air space, pressure drop, empty bed residence time, O₂ content and pH.

(3) Results of testing for the following biofilter operating parameters. Readings outside of the optimal ranges identified below requires the initiation of corrective action. The static pressure readings are collected relative to the baseline of a newly installed biofilter and do not require corrective action prior to establishment of the baseline of newly installed biofilter static pressure. For each biofilter, after the first biofilter media replacement following issuance of this permit, a baseline reading must be taken within 7 calendar days of completion of media replacement. After establishing the baseline of static pressure on the newly installed biofilter, static pressure per foot of biofilter is subject to required corrective action:

<u>Biofilter Bed Parameter</u>	<u>Operational Range</u>
<u>Moisture content (%)</u>	<u>40% - 60%</u>
<u>Free air space (%)</u>	<u>40% - 60%</u>
<u>Pressure Drop</u>	<u><0.6 inches H₂O/ft of biofilter higher than baseline of newly installed biofilter</u>
<u>Empty Bed Residence Time</u>	<u>>10 seconds</u>
<u>O₂ Content (%)</u>	<u>>5%</u>
<u>pH</u>	<u>6-8</u>

(c) Demonstration of the Adequacy and effectiveness of the system maintenance program and practices,

(d) Description of the Repair history and troubleshooting efforts,

(e) And Recommendations for continuous improvement of the integrated system operation operations of the tipping building, pre-processing/sorting and grinding building, zone 7 building and biofilters.

10. [RESERVED]

11. Cedar Grove shall maintain all monitoring and recordkeeping records required by this Order at the Maple Valley facility, including all deviations reports, and make them available to the Agency upon request. All documents required under this Order shall be kept for a minimum of two years.

Pre-Processing/Sorting and Grinding Building

12. With the exception of stumps, brush, and clean wood, all feed stocks brought on site shall be deposited into the tipping building, where they shall be stored under negative ventilation until processed and placed on a composting system. Feed stocks remaining in the tipping building or grinding building for longer than 24 hours from when they are first brought on site must be covered with at least 12 inches of biofilter material for surfaces of the feedstock pile accessible by front loader, at minimum the front face of the feedstock pile. Biofilter media must consist of at least 95% coarse woody media by volume (3-4 inch screen). If any material is present in the tipping building or grinding building for longer than 24 hours, the second bay door of the tipping building must remain closed until the material is removed. Failure to meet the requirements of this Condition No. 12 is a reportable deviation.

13. Cedar Grove shall continuously store and/or handle materials described in Condition No. 12 either inside the tipping building or pre-processing/sorting and grinding building, and not expose the material in any way to ambient air until after being processed in the pre-processing/sorting and grinding building. Visible emissions at the tipping building doorway must not exceed 5% opacity per EPA Method 9. No

~~fallout from the grinder may exit the tipping building, tipping building extension, or grinding building. The tipping building door nearest the grinder intake hopper shall remain closed at all times when grinding is taking place.~~ Additionally, any other access door into the grinding building, excluding the connection tunnel with the operating grinder, shall remain closed at all times when grinding is taking place, except when delivery trucks are entering or exiting while grinding is taking place.

14. Emissions from the tipping building, and the pre-processing, sorting, and grinding building, shall be captured and passed through the biofilter. Compliance with this requirement shall be determined by:

- a) ~~Cedar Grove must measure the airflow to the tipping building and sorting building biofilters semiannually (between 150 and 210 calendar days from the last flow measurement) to determine if the airflow is greater than or equal to four air exchanges per hour, defined as, respectively: 22,900 acfm for the tipping building; 11,450 acfm for the tipping building extension; and 14,772 acfm for the grinding building. Measurements shall be taken according to EPA Methods 1 and 2 or other method approved by PSCAA in writing prior to testing and must consist of a minimum of 3 separate runs. Cedar Grove must notify PSCAA of the date of airflow evaluations at least 21 days before the evaluation date. Any airflow measurement of the tipping building, tipping building extension, or grinding building ventilation systems below the flows identified in this Condition No. 14, shall be a reportable deviation and shall be out of compliance with this condition until corrective action is completed and a follow-up flow measurement using EPA Method 2 or other method approved by PSCAA in writing prior to testing demonstrates compliance with the minimum airflows of this condition. Completion of corrective action and demonstrated compliant flow measurements within 72 hours of a non-compliant reading shall not be considered reportable deviations.~~
- b) ~~Within 7 calendar days of completion of tipping building and/or grinding building biofilter media replacement, Cedar Grove must measure and record the baseline static pressure of the new system in inches of H₂O and baseline height of the biofilter for ongoing monitoring required in Condition No. 9.b~~

~~the observation of no visible emissions from any open building face during the release of test smoke or other methods specified in an Agency approved test plan.~~

15. ~~-[RESERVED]Once each calendar quarter, Cedar Grove shall perform testing for the buildings/enclosures with negative ventilation systems. The test shall be completed with the buildings/enclosures closed to the maximum extent possible during normal operations. Each quarterly test shall be conducted no less than 45 days and no more than 135 days since the last test. Cedar Grove shall record the date and start time of each ventilation test in a monthly log, and the test results (pass or fail). Each entry shall be initiated by the Cedar Grove employee conducting or observing the test. Cedar Grove shall propose the test method to be used for the quarterly test, for Agency approval and possible viewing. Each of these tests shall be recorded in a digital video format to document the results of the test, maintained on site for 2 years, and made available to the Agency upon request. Cedar Grove shall have additional test kits available at the facility, consistent with the currently approved procedures, for use when directed by Agency personnel during inspections. The Agency reserves the right to require modification to the approved test procedures following written notice to Cedar Grove by the Agency.~~

16. Cedar Grove shall monitor each material load received and record and make entry onto a daily log, whether each material load received was deposited inside or outside the tipping building, ~~whether the material's residence time in the tipping building and grinding building exceeds 24 hours, and the time of biofilter media application to the material stored for longer than 24 hours.~~ Each entry shall be initiated by the Cedar Grove employee conducting the monitoring. Each deviation log entry shall include the time and

date of the deviation, customer name, vehicle description (including license plate number), and description of material deposited outside the tipping building.

Primary Zones 1-7 and Secondary Zones 1-12

17. Emissions from Primary Zones 1-7 shall be captured and passed through biofiltration. Within 7 calendar days of completion of biofilter media replacement, Cedar Grove must measure and record the baseline static pressure of the new system in inches of H2O and baseline height of the biofilter for ongoing monitoring required in Condition No. 9.b

18. Secondary Zones 1-12 shall only accept compost for second phase treatment from Primary Zones 1-7. Within 7 calendar days of completion of biofilter media replacement, Cedar Grove must measure and record the baseline static pressure of the new system in inches of H2O and baseline height of the biofilter for ongoing monitoring required in Condition No. 9.b

Gore Cover System

19. Cedar Grove shall conduct one daily visual inspection of the entire Gore cover system to determine if the Gore cover is secured to the ground by use of a weighted device to capture odorous emissions. Cedar Grove shall record the date and start time of each daily inspection in a daily log, and whether the Gore cover system is secured to the ground by use of a weighted device at the time of the inspection. Each entry shall be initialed by the Cedar Grove employee conducting the monitoring. If the Gore system cover is observed to be not secured to the ground by use of a weighted device, Cedar Grove shall record the date and time of discovery and date and time the Gore System cover was secured to the ground by use of a weighted device on the inspection log. If the Gore system cover is secured to the ground by a weighted device within 60 minutes of discovery, this shall not be a reportable deviation.

20. Cedar Grove shall conduct one daily inspection of the entire Gore cover system in use to determine if any Gore cover material has any visible holes or tears. Cedar Grove shall record the date and start time of each daily inspection in a daily log, and whether any holes or tears in the Gore cover system were observed at the time of the inspection. Each entry shall be initialed by the Cedar Grove employee conducting the monitoring. If the Gore system cover is observed to have visible holes or tears, Cedar Grove shall record the date and times of discovery and date and time repairs were completed on the inspection log. If the holes or tears are logged as completely repaired or corrected by the end of the day of discovery, this shall not be a reportable deviation.

Deviation Reporting

21. Cedar Grove shall prepare monthly compliance deviation reports, on forms prepared or approved by the Agency, and send them to the Agency. Reports shall be received by the Agency within 30 days following the end of the calendar month. Each report shall include a statement of compliance identifying each reportable deviation, the status of any initiated corrective actions, and shall be signed by a responsible official of Cedar Grove certifying that the report is truthful and accurate.

22. Each day a monthly deviation report is not submitted to the Agency, in accordance with this Order, constitutes a separate and distinct reportable deviation. The Agency reserves the right to take additional enforcement action, including but not limited to, seeking injunctive relief in the Superior Court of King County based on information contained within deviation reports or credible information.

Previous Orders of Approval

23. Upon issuance, this Order of Approval cancels and supersedes Order of Approval 10645 dated 3/5/2014. This Order of Approval hereby cancels and supersedes all previous Orders of Approval for this facility, including Nos. 5136 dated 12/06/1993, 7055 dated 08/15/1997, 7638 dated 11/02/1999, 8213 dated 08/08/2000, 8913, dated 03/19/2004, 10052 dated 12/22/2010, and 10456 dated 3/6/2012.