

HEREBY ISSUES AN ORDER OF APPROVAL
TO CONSTRUCT, INSTALL, OR ESTABLISH

Registration No. 10138

Date

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Area 8 lateral expansion landfill development which will be equipped with a landfill gas collection system and a leachate collection system. Collected landfill gas is then either sent to a landfill gas-to-energy facility for processing or combusted at the existing onsite flare station.

APPLICANT

King Co Solid Waste Op Sec Cedar Hills
201 S Jackson St Ste 701
Seattle, WA 98104-3855

OWNER

King Co Solid Waste Op Sec Cedar Hills
201 S Jackson St Ste 701
Seattle, WA 98104-3855

INSTALLATION ADDRESS

King Co Solid Waste Op Sec Cedar Hills, 16645 228th Ave SE, Maple Valley, WA 98038

THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.
2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.
3. The owner and/or operator shall comply with the applicable requirements of 40 CFR 60 Subparts A, WWW, and XXX as well as 40 CFR 63 Subpart A and AAAA. Where there is a conflict of authority between two conditions, the more stringent shall be applicable.
4. The owner and/or operator shall report actual emissions of all pollutants evaluated under this Permit, to the Agency within 30 days of the landfill accepting more than 1,155,970 tons of refuse per any 12 consecutive month periods into the Area 8 expansion.
 - a. If actual emissions are above any SQER found in WAC 173-460-150 (except for the four pollutants in Permit Condition 15), the owner and/or operator shall submit a permit application to the Agency within 90 days of submitting the report of actual emissions.
5. The owner and/or operator shall install and maintain an active landfill gas collection and control system capable of meeting the design parameters 40 CFR 60.762(b)(2)(ii). This gas collection and control system shall, at a minimum, match the approved design plan submitted to the agency in the permit application.
6. The owner and/or operator shall operate the gas collection and control system located at Area 8 in accordance with the requirements of 40 CFR 60.763.
7. The owner and/or operator shall ensure that each wellhead located in the Area 8 gas collection system has

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at least one sample port in accordance with 40 CFR 60.756(a).

8. Landfill gas collected with the landfill gas collection and control system shall be routed to the Bio Energy (Washington) LLC Facility (BEW) or other similar landfill gas to energy facility. Any landfill gas not routed through the BEW shall be routed to the Cedar Hills flare station for processing as follows:
 - a. The owner and/or operator shall ensure the flare operated under this condition achieves a minimum of 98% destruction of all non-methane organic compounds; or
 - b. Reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at 3 percent oxygen.
9. The owner and/or operator shall operate the gas collection and control system such that the H₂S concentration is less than 1 ppm average above the background concentration (if any), at the surface of the Area 8 cover.
10. In order to demonstrate compliance with Permit Condition 9, the owner and/or operator shall conduct surface monitoring of the landfill cover at Area 8 once per operating year, using a portable handheld monitor capable of measuring at least 1 ppm H₂S. The surface testing must be conducted around the perimeter of the collection area for Area 8 and along a pattern that traverses the Area 8 cover at no more than 30 meter intervals.
11. The owner and/or operator shall conduct an initial performance test on all flares that have the potential to receive area 8 landfill gases within 12 to 18 months of Area 8 receiving waste in order to verify compliance with the standards in Condition No. 8a or 8b. The flare does not need to be started up just to conduct a performance test; the owner and/or operator may wait until LFG is not routed to the landfill gas to energy facility. The test shall be conducted as close as possible to normal operation.
12. The owner and/or operator shall annually test one of the flare outlets controlling landfill gas from Area 8 for H₂S to ensure it does not exceed 2.2 lbs H₂S/ 10⁶ acf LFG.
13. In order to demonstrate compliance with Permit Condition 12, the annual test should be conducted using EPA Method 15 or an alternative method approved by the agency in writing. If, after two years of annual testing, the H₂S content is found to be consistently less than or equal to Permit Condition 12 limit, the periodic testing rate can be change to once every 5 years.
14. The owner and/or operator shall test the flare in accordance with the test methods and procedures outlined in 40 CFR 60.754(d) and the applicable EPA test reference methods for NMOC.
15. The owner and/or operator shall report actual emissions of the following pollutants to the Agency within 30 days of any test result showing detected levels in the landfill gas that are higher than the following:
 - a. Vinyl Chloride – 1800 ug/m³
 - b. Acrylonitrile – 557 ug/m³
 - c. 1,1,1,2-Tetrachloroethane – 2167 ug/m³
 - d. Bromodichloromethane. – 430 ug/m³

If actual emissions are above any SQER found in WAC 173-460-150, the owner and/or operator shall submit a permit application to the Agency within 90 days of submitting the report of actual emissions.

16. In order to demonstrate compliance with Permit Condition 15, the owner/operator shall conduct an initial characterization of the landfill gas that would go to the flare or the landfill gas-to-energy facility within 12 to 18 months of Area 8 receiving waste. The flare inlet gas shall be analyzed for, at a minimum, the

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compounds listed below. All concentrations shall be reported on a dry basis.

Vinyl Chloride, Acrylonitrile, 1,1,1,2-Tetrachloroethane, and Bromodichloromethane.

The owner/operator shall conduct an additional characterization of the landfill gas in the year 2026 to ensure the limits of Permit Condition 15 are still being met.

17. The owner shall record and maintain the ammonia concentration entering the leachate collection pond from the area 8 landfill operations. The owner and/or operator shall make the records available to the Agency upon request.
18. The owner and/or operator shall submit a test notification to the Puget Sound Clean Air Agency in accordance with Section 3.07 of Regulation I before a source test is conducted.
19. The owner and/or operator shall submit a test protocol to the Agency 30 days before conducting performance tests on the flares for which compliance with Permit Condition 11 is being verified.
20. The owner and/or operator shall submit a test report to the Puget Sound Clean Air Agency in no later than 60 days after a performance test is conducted. This source test shall outline the results of the test and indicate whether the owner and/or operator failed any test.
21. The owner and/or operator shall operate the flare at an average set point temperature at or above the temperature range recorded during the most recent source test showing compliance with Condition No. 8a or 8b. The owner or operator must collect at least one measured data point for each 15-minute monitoring period in every hour the flare is receiving landfill gas. For the purposes of this condition, flare operating temperature shall be based on a rolling 3-hour average and shall only include hourly data which has at least one measured data point during three 15-minute monitoring periods during each hour. The flare operating temperature requirement does not apply to periods of start-ups, shutdowns and/or malfunctions provided that these events are not actively processing landfill gas and do not last for more than 1 hour.
22. The owner and/or operator shall report to the agency no later than 30 days after the violation is discovered all instances when either:
 - a. The 3-hour rolling average flare temperature readings were below the set point.
 - b. Startup, shutdown or malfunction events lasted longer than an hour and the flare was actively receiving landfill gas.
23. The owner/or operator shall develop a written start-up, shutdown, and malfunction plan according to the provisions of 40 CFR 63.6(e)(3). A copy of the plan must be maintained on site at all times.
24. The flare shall be equipped with both local and remote alarms, automatic combustion air control, and automatic gas shutoff valves.
25. The owner and/or operator shall either remove or seal in the closed position any valve that has the potential to bypass the flare. Any bypasses of the flare shall be measured and logged. The records shall be maintained on file and made available upon request of Agency personnel.
26. The owner and/or operator may test emissions from the flare at any time in order to demonstrate compliance with Condition No 8a or 8b, using the test methods specified in 40 CFR 60.754(d), following the notification procedures of Section 3.07 of Regulation I, and submitting the test report to the Agency

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within 60 days after the testing.

27. The owner and/or operator shall take corrective action whenever the flare temperature drops below the set point temperature determined during the most recent performance test.
28. Records demonstrating compliance with this order must be kept and maintained onsite for at least 5 years. Such records and the O&M plan shall be made available for review by the Puget Sound Clean Air Agency upon request.

APPEAL RIGHTS

Pursuant to Puget Sound Clean Air Agency's Regulation I, Section 3.17 and RCW 43.21B.310, this Order may be appealed to the Pollution Control Hearings Board (PCHB). To appeal to the PCHB, a written notice of appeal must be filed with the PCHB and a copy served upon Puget Sound Clean Air Agency within 30 days of the date the applicant receives this Order.

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Ralph Munoz
Reviewing Engineer

Carole Cenci
Compliance Manager