RCW 70A.540.040 Gas collection and control system. (1) The owner or operator of any municipal solid waste landfill that has a calculated landfill gas heat input capacity greater than or equal to 3,000,000 British thermal units per hour recovered must install a gas collection and control system that meets the requirements of this section and the department's implementing rules adopted pursuant to RCW 70A.540.020, unless the owner or operator demonstrates to the satisfaction of the department or local authority that after four consecutive quarterly monitoring periods there is no measured concentration of methane of 200 parts per million by volume or greater using the instantaneous surface monitoring procedures specified in RCW 70A.540.080 and the department's implementing rules adopted pursuant to RCW 70A.540.020. If a municipal solid waste landfill partners with a third party to operate all or a portion of the gas collection and control system or energy recovery device, the obligation to comply with the requirements of this chapter are the responsibility of the owner or operator of the relevant portion of the gas collection and control system or energy recovery device.

(2) The gas collection and control system must handle the expected gas generation flow rate from the entire area of the municipal solid waste landfill and must collect gas at an extraction rate to comply with the surface methane emission limits set forth in RCW 70A.540.050 and the department's implementing rules.

(3) The gas collection and control system must be designed and operated so that there is no landfill gas leak that exceeds 500 parts per million by volume, measured as methane, at any component under positive pressure.

(4) The gas collection and control system, if it uses a flare, must achieve a methane destruction efficiency of at least 99 percent by weight and must use either an enclosed flare or, if the system uses an open flare, the open flare must comply with the following requirements:

(a) The open flare must meet the requirements of 40 C.F.R. Sec. 60.18 (as last amended by 73 Fed. Reg. 78209, December 22, 2008);

(b) An open flare installed and operating prior to December 31, 2022, may operate until January 1, 2032, unless the owner or operator demonstrates to the satisfaction of the department or local authority that the landfill gas heat input capacity is less than 3,000,000 British thermal units per hour pursuant to RCW 70A.540.080 and the department's implementing rules adopted pursuant to RCW 70A.540.020 and is insufficient to support the continuous operation of an enclosed flare or other gas control device; and

(c) The owner or operator may temporarily operate an open flare during the repair or maintenance of the gas control system, or while awaiting the installation of an enclosed flare, or to address off-site gas migration issues. Any owner or operator seeking to temporarily operate an open flare must submit a written request to the department or local authority pursuant to RCW 70A.540.100 and the department's implementing rules adopted pursuant to RCW 70A.540.020.

(5) If the gas collection and control system does not use a flare, it must either route the collected gas to an energy recovery device or devices, or must route the collected gas to a treatment system that processes the collected gas for subsequent sale or use.

(6) If a gas collection and control system routes the collected gas to an energy recovery device or devices, the owner or operator of the energy recovery device or devices must comply with the following requirements:

(a) The device or devices must achieve a methane destruction efficiency of at least 97 percent by weight, except for lean-burn internal combustion engines that were installed and operating prior to January 1, 2022, which must reduce the outlet methane concentration to less than 3,000 parts per million by volume, dry basis corrected to 15 percent oxygen; and

(b) If a boiler or a process heater is used as the gas control device, the landfill gas stream must be introduced into the flame zone, except that where the landfill gas is not the primary fuel for the boiler or process heater, introduction of the landfill gas stream into the flame zone is not required.

(7) If a gas collection and control system routes the collected gas to a treatment system that processes the collected gas for subsequent sale or use, the owner or operator of the treatment system must ensure the system achieves a methane leak rate of three percent or less by weight. Venting of processed landfill gas to the ambient air is not allowed. If the processed landfill gas cannot be routed for subsequent sale or use, then the treated landfill gas must be controlled according to subsection (4) of this section.

(8) The owner or operator of a municipal solid waste landfill must conduct a source test for any gas control device or devices subject to this section using the test methods identified in RCW 70A.540.080 and the department's implementing rules adopted pursuant to RCW 70A.540.020. If a gas control device is currently in compliance with source testing requirements as of June 9, 2022, the owner or operator must conduct the source test no less frequently than once every five years. If a gas control device is currently not in compliance with source testing requirements as of June 9, 2022, or if a subsequent source test shows the gas control device is out of compliance, the owner or operator must conduct the source test no less frequently than once per year until two subsequent consecutive tests both show compliance. Upon two subsequent consecutive compliant tests, the owner or operator may return to conducting the source test no less frequently than once every five years. [2022 c 179 § 4.]