

SUBCHAPTER I: LANDFILL GAS MANAGEMENT

§330.371

Effective March 27, 2006

§330.371. Landfill Gas Management.

(a) Owners or operators of all landfill units shall ensure that:

(1) the concentration of methane gas generated by the facility does not exceed 1.25% by volume in facility structures (excluding gas control or recovery system components); and

(2) the concentration of methane gas does not exceed 5% by volume in monitoring points, probes, subsurface soils, or other matrices at the facility boundary defined by the legal description in the permit or permit by rule.

(b) Owners or operators of all landfill units shall implement a routine methane monitoring program to ensure that the standards of subsection (a) of this section are met.

(1) The type and frequency of monitoring shall be determined based on the following factors:

(A) soil conditions;

(B) the hydrogeologic conditions surrounding the facility;

(C) the hydraulic conditions surrounding the facility;

(D) the location of facility structures and property boundaries; and

(E) the location of any utility lines or pipelines that cross the MSW landfill facility.

(2) The minimum frequency of monitoring shall be quarterly.

(c) If methane gas levels exceeding the limits specified in subsection (a) of this section are detected, the owner or operator shall:

(1) immediately take all necessary steps to ensure protection of human health and notify the executive director, local and county officials, emergency officials, and the public;

(2) within seven days of detection, place in the operating record the concentration of methane gas levels detected and a description of the steps taken to protect human health; and

(3) within 60 days of detection, implement a remediation plan for the methane gas releases, place a copy of the plan in the operating record, provide a copy to the executive director, and

notify the executive director that the plan has been implemented. The plan shall describe the nature and extent of the problem and the proposed remedy. After review, the executive director may require additional remedial measures.

(d) The executive director may establish alternative schedules for demonstrating compliance with subsections (b) and (c) of this section.

(e) The owner or operator shall continue the gas monitoring and control program for a period of 30 years after certification of final closure of the facility for Type I and Type IAE landfill units and five years after certification of final closure for Type IV and Type IVAE landfill units or until the owner or operator receives written authorization to reduce the program. Authorization to reduce gas monitoring and control shall be based on a demonstration by the owner or operator that there is no potential for gas migration beyond the property boundary or into on-site structures. Demonstration of this proposal shall be supported by data collected and additional studies as required.

(f) Gas monitoring and control systems shall be revised as needed to maintain current and effective gas monitoring and control systems. Post-closure land use at the site shall not interfere with the function of gas monitoring and control systems. Any underground utility trenches that cross the landfill facility boundary shall be vented and monitored regularly.

(g) A landfill gas management plan shall be prepared that includes the following:

- (1) a description of how landfill gases will be managed and controlled;
- (2) a description of the proposed system(s), including installation procedures and time lines for installation, monitoring procedures, and procedures to be used during maintenance; and
- (3) a backup plan to be used if the main system breaks down or becomes ineffective.

(h) The owner or operator shall install a perimeter monitoring network in accordance with the following provisions:

(1) initial monitoring at Type IAE and Type IVAE landfills and larger landfills that have no habitable structures within 3,000 feet of the waste placement boundary may consist of subsurface monitoring around the perimeter of the facility using portable equipment and probes. If test results show the presence of methane gas above a concentration of 0.5% by volume, a permanent monitoring system shall be installed; and

(2) permanent monitoring systems shall be installed on all other landfills.

(i) The monitoring network design shall include provisions for monitoring on-site structures, including, but not limited to, buildings, subsurface vaults, utilities, or any other areas where potential gas buildup would be of concern.

(j) All monitoring probes and on-site structures shall be sampled for methane during the monitoring period. Sampling for specified trace gases may be required by the executive director when there is a possibility of acute or chronic exposure due to carcinogenic or toxic compounds.

(k) Monitoring frequency shall be determined as follows.

(1) As a minimum, quarterly monitoring is required. The executive director may require more frequent monitoring based upon the factors listed in this section. When more frequent monitoring is necessary, the executive director shall notify the owner or operator.

(2) The owner or operator shall monitor more frequently those locations where monitoring results indicate that landfill gas migration is occurring or is accumulating in structures.

(l) The comprehensive rule revisions in this chapter as adopted in 2006 (2006 Revisions) to this subchapter supersede any conflicting provisions contained in any existing permits upon the effective date of the 2006 Revisions.

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