AIR QUALITY CONTROL ADVISORY COUNCIL
AGENDA
January 8, 2024

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9:00 a.m.	Welcome and Introductions New Council Members and Appointments	Todd Chason, Council Chair Ben Hobbs, Council Vice Chair Chris Hoagland, Air Director
9:20 a.m.	Approval of Meeting Minutes	Todd Chason

Action Items:

9:30 a.m.	MSW Landfill Amendments COMAR 26.11.42	Eddie Durant
10:00 a.m.	Permits – Affirmative Defense Rule Repeal	Suna Sariscak
10:30 a.m.	Adjourn	

Next Meeting Dates:
March 11, June 10, September 16, December 9

Maryland
Department of
the Environment

Amendments to COMAR 26.11.42
Control of Emissions from Municipal Solid Waste Landfills

October 18, 2023

Purpose of the Amendments

The purpose of this action is to amend the recently adopted regulation COMAR 26.11.42 – Control of Emissions from Municipal Solid Waste (MSW) Landfills. The amendments provide clarification to certain requirements and standards for owners and operators of MSW landfills in Maryland, makes stylistic and technical corrections, and better aligns the regulation with federal requirements for MSW landfills.

Submission to EPA as Revision to Maryland's State SIP Plan

The proposed action will be submitted to the U.S. Environmental Protection Agency (EPA) for approval as part of Maryland's state plan for MSW landfills under the Clean Air Act (CAA) section 111(d).

Background

In June 2023, the Department finalized a new regulation which regulates landfill gas emissions from MSW landfills. The new regulation incorporates provisions from the federal rules 40 CFR 60, Subparts Cf (Emission Guidelines), 40 CFR 60, Subpart XXX (New Source Performance Standards) and 40 CFR 63, Subpart AAAA (National Emissions Standards for Hazardous Air Pollutants) for MSW landfills.

This newly adopted regulation replaces previous requirements and standards that regulated landfill emissions from MSW landfills under COMAR 26.11. 19.20 - Control of Landfill Gas Emissions from Municipal Solid Waste Landfills, which was approved as a federal state plan under 111(d). COMAR 26.11. 19.20 applied to MSW landfills with a design capacity greater than or equal to 2,750,000 tons and 3,260,000 cubic yards of waste; landfills constructed, reconstructed, or modified before May 30, 1991; and landfills that received waste on or after November 8, 1987. COMAR 26.11. 19.20 included a threshold for installing a gas collection and control system (GCCS) when the non-methane organic compounds (NMOC) measure greater than or equal to 50 megagrams per year (Mg/yr).

COMAR 26.11.42 - Control of Emissions from Municipal Solid Waste Landfills has the equivalent requirements for existing landfills as the federal FIP 40 CFR 62, Subpart OOO but is more stringent. The regulations include surface emissions testing, performance tests, criteria for a GCCS and reporting and record keeping.

Sources Affected and Location

The proposed action applies to MSW landfills in Maryland that are subject to the recently adopted MSW landfill regulation. Depending on criteria such as size, age, and methane generation rate – the MSW landfills (32 active and closed landfills) that are subject to COMAR 26.11.42 are required to meet certain requirements and standards.

Amendments to COMAR 26.11.42

Control of Emissions from Municipal Solid Waste Landfills

Requirements

The proposed action amends COMAR 26.11.42 and corrects typographical and stylistic errors that were identified by the Division of State Documents (DSD), State of Maryland during the adoption process. The proposed action also provides clarification of certain standards and requirements, and in some instances aligns them with federal requirements (EG, NSPS, and NESHAP) for MSW landfills for consistency. The amendments include the following:

- Addition of a new definition for controlled MSW landfills;
- Clarification on the timeline for certain compliance actions based on surface emissions monitoring results;
- Clarification on the timeline for the submittal of design plans for MSW landfills required to install and operate a gas collection and control system (GCCS);
- Clarification on the timeline for installing new components in landfill areas required to be controlled; and,
- The types of unplanned shutdown events that need to be reported to the Department.

Economic Impact on Affected Sources, the Department, other State Agencies, Local Government, other Industries or Trade Groups, the Public

The proposed amendments provide clarification of specific requirements and standards and correct technical errors. Therefore, the proposed action will have minimal or no economic impact on affected sources, the Department, other state agencies, local governments, other industries and trade groups, and the public.

Economic Impact on Small Businesses

The proposed action has minimal or no economic impact on small businesses. The Department believes the clarification of certain requirements and standards and the correction of technical errors in the proposed amendments will not have a substantive economic impact on small businesses.

Comparison to Federal Standards

The proposed amendments to the new regulation align certain requirements and standards for MSW landfills with those found in the updated federal regulations (40 CFR 60, Subpart Cf; 40 CFR 60, Subpart XXX; and, 40 CFR 63, Subpart AAAA).

6/23/23 download
10/25/23 draft
11/20/23 rev

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 11 AIR QUALITY

Chapter 42 Control of Methane Emissions from Municipal Solid Waste Landfills

Authority: Environment Article, §§1-404, 2-103, 2-301—2-303, 10-102, and 10-103, Annotated Code of Maryland

.01 — .02 (text unchanged)

.03 Definitions.

A. (text unchanged)

B. Terms Defined.

(1)—(7) (text unchanged)

(7-1) Controlled MSW Landfill.

(a) "Controlled MSW landfill" means any MSW landfill at which gas collection and control systems are required as a result of triggering the threshold for:

(i) The calculated or measured methane generation rate; or

(ii) The calculated or measured methane generation rate and the concentration of methane.

(b) "Controlled MSW landfill" is considered to be controlled at the time a gas collection and control system design plan is submitted to the Department in accordance with applicable regulations.

(8)—(37) (text unchanged)

.04 Requirements for Municipal Solid Waste (MSW) Landfills.

A. (text unchanged)

B. MSW Landfills Greater Than or Equal to 450,000 Tons of Waste-in-Place.

(1)—(4) (text unchanged)

(5) The owner or operator who chooses to conduct consecutive quarterly surface emissions monitoring pursuant to §B(3)(b) of this regulation shall perform one of the following actions based on the monitoring results:

(a) Except as provided in Regulation .09A(1) of this chapter, if there is any measured concentration of methane of 200 ppmv or greater from the surface of an active, inactive, or closed MSW landfill, other than non-repeatable, momentary readings, the owner or operator shall cease the quarterly monitoring, and instead, install a gas collection and control system in accordance with the provisions in Regulation .05, and shall comply with the requirements in Regulations .04 -.11 of this chapter beginning with the next **[**quarterly report submission**]** *quarter.*

(b)—(c) (text unchanged)

(6) (text unchanged)

C.—D. (text unchanged).

.05 Requirements for Gas Collection and Control Systems.

A. Design Plan and Installation.

(1) If a gas collection and control system which meets the requirements in §B of this regulation has not been installed, the owner or operator of a MSW landfill shall submit a design plan to the Department within 1 year [following the effective date of this regulation or within 1 year of detecting any measured concentration of methane of 200 ppmv or greater] *of meeting the criteria requirement to install and operate a gas collection and control system* in accordance with the provisions in Regulation*s* .04(B)(3)*, .04(B)(6) and .04(C)* of this chapter.

(2) A design plan shall meet the following requirements:

(a) (text unchanged)

(b) Address the following issues:

(i)—(xii) (text unchanged)

(xiii) The ability to isolate individual components or sections for repair or troubleshooting without shutting down *the* entire collection system.

(c) Provide for the control of the collected gas using a gas collection and control system meeting the *applicable* requirements of §B(1), §B(2), §B(3), or §B(4) of this regulation or an alternative method approved in accordance with the provisions in Regulation .08 of this chapter;

(d)—(l) (text unchanged)

(3) The maximum expected gas generation flow rate in §A(2)(d) of this regulation shall be calculated using the test method in Regulation .11B *of this chapter* or an alternative test method approved in accordance with Regulation .08 of this chapter.

(4)—(6) (text unchanged)

(7) The owner or operator of a controlled MSW landfill shall place each well or design component as specified in the approved design plan.

(8) Following initial construction, the owner or operator of a controlled MSW landfill shall install each new component no later than 60 days after the date on which the area controlled by the well is required to be controlled in accordance with the provisions in this regulation.

B. Standards and Requirements for Gas Collection and Control Systems.

(1) General Requirements. **[**The owner or operator of a MSW landfill that is subject to the provisions of this regulation shall satisfy the following standards and requirements when operating a gas collection and control system:**]**

(a) (text unchanged)

(b) Operate the gas collection and control system to comply with the requirements in §A(2)(h) of this regulation**.[**;**]**

(c)—(g) (text unchanged)

(h) Any nonproductive area of the MSW landfill as identified in §A(2)(i*) of this regulation* may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of methane emissions from the landfill and:

(i)—(iv) (text unchanged)

(i)—(q) (text unchanged).

(2) (text unchanged)

(3) Requirements for Open Flares.

(a)—(e) (text unchanged)

(f) An owner or operator seeking to operate an open flare in accordance with one of the provisions of §B(3)(e) shall submit a written request to the Department which includes the following information:

(i) Proof that the landfill gas emissions being controlled using an open flare does not exceed 732 tons per year of methane; **[**and**]** *or*

(ii) (text unchanged)

(4)—(5) (text unchanged)

(6) The owner or operator subject to the provisions in §B(4)(c) of this regulation shall demonstrate compliance by using a device that records flow to the treatment system and bypass of the treatment system, if applicable, that shall be calibrated, maintained, and operated according to the manufacturer's specifications.

(a) (text unchanged)

(b) The owner or operator shall comply with the following requirements:

(i) (text unchanged)

(ii) *If using a passive collection system, install* **[**Install**]** liners or equivalent non-permeable materials as required under 40 CFR §258.40, as amended, on the bottom and all sides in all areas in which gas is to be collected; and,

(iii) (text unchanged)

(7) (text unchanged)

C.—E. (text unchanged)

F. Repairs and Temporary Shutdown of Gas Collection System Components. The requirements of §B(1)(a) and (b) *of this regulation* do not apply to individual landfill gas collection system components that are temporarily shut down in order to repair the components, due to an emergency, catastrophic events such as earthquakes, to connect new landfill gas collection system components to the existing system, to extinguish landfill fires, or to perform construction activities in accordance with Regulation .07C of this chapter, provided the following requirements are met:

(1)—(3) (text changed)

.06 Requirements for the Permanent Shutdown and Removal of a Gas Collection and Control System.

A. (text unchanged)

B. The owner or operator of a MSW landfill that has capped or removed a gas collection and control system subject to §A of this regulation shall conduct *instantaneous* surface methane concentration measurements over the portion of the landfill with the capped or removed gas collection and control system in accordance with the procedures in Regulation .11F*(1) and (2)* of this chapter for at least eight consecutive calendar quarters after the gas collection and control system is capped or removed. The measurements shall comply with the following requirements:

(1)—(2) (text unchanged)

(3) If there is any measured concentration of methane of 200 ppmv or greater in any of these measurement events, other than nonrepeatable, momentary readings, as determined by instantaneous surface emissions monitoring from the surface of the closed MSW landfill, the owner or operator shall comply with the provisions in **[**Regulations .04 — .11**]** *Regulation .09A(1)* of this chapter.

.07 — .08 (text unchanged)

.09 Monitoring Requirements and Corrective Actions.

A. Surface Emissions Monitoring Requirements. The owner or operator of a MSW landfill shall conduct instantaneous and integrated surface emissions monitoring of the landfill surface on a quarterly basis in accordance with the procedures specified in Regulation .11F of this chapter. All the following requirements shall apply to surface monitoring:

(1) Instantaneous Surface Emissions Monitoring. Any reading equal to or exceeding a limit specified in Regulation .04B(3)(b), .06B(3), or .07A(1) of this chapter shall be recorded as an exceedance and the following actions shall be taken:

(a) The owner or operator of an MSW landfill shall:

(i) (text unchanged)

(ii) Retain and submit to the Department in accordance with the provisions of Regulation .10 of this chapter, a copy of the documentation required under §A(1)(a)(i) *of this regulation.*

(b) (text unchanged)

(c) The owner or operator shall re-monitor the location within 10 calendar days of the measured exceedance and comply with all the following requirements:

(i) (text unchanged)

(ii) If after the re-monitoring in A(1)(c)(i) *of this regulation* a third exceedance is detected, the owner or owner or operator shall install a new or replacement well or collection device and demonstrate compliance no later than 120 calendar days after detecting the third exceedance;

(iii) If after the re-monitoring in A(1)(c)(i) *of this regulation* a location has demonstrated no subsequent exceedance, that location shall be re-monitored 1 month from the initial exceedance;

(iv) If the 1-month re-monitoring in A(1)(c)(iii) *of this regulation* shows a concentration less than 500 ppmv methane (for compliance with Regulation.07A(1) of this chapter), or less than 200 ppmv methane (for compliance with Regulations .04B(3)(b) or .06B(3) of this chapter), no further monitoring of that location is required until the next quarterly monitoring period;

(v) If the 1-month re-monitoring in A(1)(c)(iii) *of this regulation* shows an exceedance, the owner or operator shall install a new or replacement well or collection device no later than 120 days after detecting the third exceedance;

(vi)—(vii) (text unchanged)

(d)—(e) (text unchanged)

(2) Integrated Surface Emissions Monitoring: Any reading exceeding the limit specified in Regulation .07A(2) of this chapter shall be recorded as an exceedance and the following actions shall be taken:

(a)—(b) (text unchanged)

(c) The owner or operator who takes corrective action as required under §A(2)(b) of this regulation shall re-monitor the grid and comply with the requirements under §A(1)(c) *of this regulation* when an exceedance of Regulation .07A(2) *of this chapter* is recorded for the grid.

(d)—(e) (text unchanged)

B. Gas Control System Equipment Monitoring. The owner or operator shall monitor the gas control system **[**using the following procedures:**]**.

(1)—(4) (text unchanged).

(5) The owner or operator subject to §B(3) *of this regulation* may submit alternative compliance procedures to the Department for approval in accordance with the provisions in Regulation .08 of this chapter.

(6)—(9) (text unchanged)

C. Wellhead Monitoring. The owner or operator shall monitor each individual wellhead monthly to determine and record the gauge pressure, temperature, and nitrogen [and]*or* oxygen content of gas emissions*, and follow the procedures listed as applicable.* **[**The monitoring shall comply with all the following requirements:**]**

(1)—(6) (text unchanged)

D. (text unchanged)

.10 Recordkeeping and Reporting Requirements.

A. — B. (text unchanged)

C. Reporting Requirements.

(1)—(9) (text unchanged)

(10) Corrective Action and Corresponding Timeline Reports.

(a) For corrective action that is required in accordance with the provisions in Regulation .09C of this chapter and is expected to take longer than 120 days after the initial exceedance to complete, the MSW landfill owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Department for approval as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of **[**55ºC (131ºF)**]** *62.8ºC (145ºF).*

(b) (text unchanged)

(11)—(12) (text unchanged)

(13) Repairs and Temporary Shutdown Notification.

(a) (text unchanged)

(b) If a shutdown occurs due to catastrophic or other unplanned events as listed in Regulation .05F*(3)* of this chapter, the notification shall be submitted to the Department within 10 days after the shutdown.

(14) Root Cause Analysis Report.

(a) If a person who owns or operates a MSW landfill cannot fully implement a corrective action required according to Regulation .09C within 120 days after the initial exceedance, the owner or operator shall submit the root cause analysis and additional analysis and reporting in accordance with §C(10) of this regulation as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of **[**55ºC (131ºF)**]** *62.8ºC (145ºF).*

(b)—(c) (text unchanged)

(15) (text unchanged)

(16) Liquids Addition Report.

(a) An owner or operator subject to the provisions in Regulation **[**.05**]**.*04C* of this chapter that has employed leachate recirculation or added liquids based on a research, development, and demonstration permit for landfill operations (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last 10 years shall submit to Department, annually, the following information:

(i)—(vi) (text unchanged)

(b)—(f) (text unchanged)

(17) (text unchanged)

.11 Test Methods and Procedures.

The owner or operator of a MSW landfill shall use the following test methods and procedures to demonstrate compliance with the provisions of this chapter**.**

A. **—** C. text unchanged

D. Determination of Methane Generation Rate. The following methods and procedures shall be used to determine the methane generation rate, as applicable:

(1) MSW Landfills without Carbon Adsorption or Passive Venting Systems.

(a) The methane generation rate shall be calculated using the procedures specified in 40 CFR §98.343(a)(1) **[**or 40 CFR §98.463(a)(1)**]**, as amended.

(b) (text unchanged)

(2)—(4) (text unchanged)

E. (text unchanged)

F. Surface Emissions Monitoring. The owner or operator shall measure the landfill surface concentration of methane using a hydrocarbon detector meeting the requirements of Regulation .11A of this chapter. The landfill surface shall be inspected using the following procedures:

(1) General Procedures for Instantaneous and Integrated Monitoring.

(a)—(d) (text unchanged)

(e) Average wind speed shall be determined on a 5-minute **[**average**]** *interval* using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event.

(f)—(i) (text unchanged)

(2)—(3) (text unchanged)

G. **—** J. (text unchanged)

Maryland
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the Environment

Facts About …

Amendments to COMAR 26.11.03 Repeal of Regulation .24 – Part 70 Permit Emergency Provisions

10/25/2023

Purpose

The purpose of this action is to repeal Regulation .24 from COMAR 26.11.03 Permits, Approvals, and Registration — Title V Permits.

Submission to EPA as Revision to Maryland's State Implementation Plan (SIP)

This action will not be submitted to the U.S. Environmental Protection Agency (EPA) for approval as part of Maryland's State Implementation Plan.

Background & Requirements

Title V of the Clean Air Act (CAA) requires major sources of air pollutants, and certain other sources, to obtain and operate in compliance with an operating permit. Sources with these title V permits are required to certify compliance with the applicable requirements of their permits at least annually. The U.S. Environmental Protection Agency (EPA) first promulgated the emergency affirmative defense provisions when it finalized its title V regulations for state operating permit programs in 1992 and in the regulations for the federal operating permit program in 1996. Maryland's Title V program and regulations were effective on August 2, 1996, the date EPA approved Maryland's program.

Under the affirmative defense provisions, a stationary source could use this affirmative defense in an enforcement case to avoid liability for noncompliance with technology-based emission limits contained in the source's title V permit. To rely on the affirmative defense and avoid liability, the source must demonstrate that any excess emissions occurred as the result of an "emergency," as defined in the regulations, and the source must make a number of other demonstrations specified in the regulations. No permitted facility has ever utilized the affirmative defense provisions in Maryland.

In 2014, the U.S. Court of Appeals for the D.C. Circuit issued its NRDC v. EPA decision (749 F.3d 1055) vacating the affirmative defense provisions. On June 14, 2016, EPA proposed a rule to remove these affirmative defense provisions from the title V regulations (81 FR 38645), but later withdrew it. On March 28, 2022, EPA re-proposed to remove the emergency affirmative defense provisions from the title V regulations (87 FR 19042). On July 12, 2023, EPA finalized

the removal of the emergency affirmative defense provisions from the CAA operating permit program (Title V) regulations (88 FR 47029). The finalized rule removes paragraph (g) from 40 CFR 70.6. These provisions are found in EPA's regulations under Title V of the CAA, located at 40 CFR 70.6(g) (applicable to state/local/tribal permitting authorities) and 71.6(g) (applicable when EPA is the permitting authority).

With the removal of the affirmative defense provisions under the CAA, it is necessary for states whose Title V (part 70 programs) contain impermissible affirmative defense provisions to remove such provisions from their EPA-approved part 70 programs.

Maryland's Title V (part 70 program) is contained under COMAR 26.11.03 Permits, Approvals, and Registration — Title V Permits. This action will repeal Regulation .24 to remove the affirmative defense provisions.

Projected Emission Reductions

The proposed action does not impact emissions.

Economic Impact on Affected Sources, the Department, other State Agencies, Local Government, other Industries or Trade Groups, the Public and Small Businesses

The proposed action has minimal or no economic impact.

Comparison to Federal Standards

The state operating permit program (title V) provisions are found in EPA's regulations under title V of the CAA, located at 40 Code of Federal Regulations (CFR) part 70.

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 11 AIR QUALITY

Chapter 03 Permits, Approvals, and Registration — Title V Permits

Authority: Environment Article, §§1-101, 1-404, 2-101—2-103, 2-301—2-303, 2-401, 2-403, and 2-404, Annotated Code of Maryland

.01 — .23 (text unchanged)

[.24 Part 70 Permit Emergency Provisions.

A. For purposes of a Part 70 permit, an "emergency" means a situation:

(1) Arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator of the source, including acts of God;

(2) Requiring immediate corrective action to restore normal operation; and

(3) That causes the source to exceed a technology-based emission standard under the Part 70 permit because of unavoidable increases in emissions attributable to the emergency.

B. An emergency does not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

C. An emergency constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission standard in the federally enforceable conditions of a Part 70 permit if the conditions of §D of this regulation are met.

D. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the permittee identified the cause of the emergency;

(2) The permitted source was being properly operated when the emergency occurred;

(3) During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements of the federally enforceable conditions of a Part 70 permit and the effects of those levels of emissions; and

(4) The permittee submitted verbal notice of the emergency to the Department immediately and written notice within 2 working days after emission standards were exceeded because of the emergency.

E. The notice under §D(4) of this regulation shall contain a description of the emergency, the steps taken to minimize emissions and their effects, and corrective actions taken. This notice fulfills the requirements of Regulation .06C(7)(a)(iii) of this chapter.

F. In a proceeding to establish noncompliance with the federally enforceable conditions of a Part 70 permit, a permittee has the burden of proof to establish the occurrence of an emergency.

G. This regulation is in addition to an emergency or upset provision contained in an applicable requirement, including the provisions of COMAR 26.11.01.07.**]**