



west virginia department of environmental protection

---

---

**West Virginia  
State Plan Revision for  
MUNICIPAL SOLID WASTE LANDFILLS**

**DRAFT**

West Virginia Division of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

[This page intentionally left blank.]

# Table of Contents

<b>1.0. Executive Summary</b>	1
<b>2.0. Request</b>	3
<b>3.0. Background</b>	4
<b>4.0. State Plan Requirements</b>	5
<b>4.1. Source Inventory</b>	5
<b>4.2. Emissions Inventory</b>	8
<b>4.3. Compliance Schedules and Increments of Progress</b>	10
<b>4.4. Emissions Standards and Operational Standards</b>	13
<b>4.4.a. Emission Standards</b>	13
<b>4.4.b. Operational Standards</b>	15
<b>4.5. Performance Testing, Monitoring, Recordkeeping, and Reporting</b>	16
<b>4.5.a. Compliance and Performance Testing</b>	16
<b>4.5.b. Monitoring</b>	17
<b>4.5.c. Recordkeeping and Reporting</b>	18
<b>4.6. Public Participation</b>	19
<b>4.7. Progress Reports</b>	21
<b>4.8. Identification of Enforceable State Mechanisms for Implementation</b>	22
<b>4.8.a. Implementation of New Source Performance Standards</b>	22
<b>4.8.b. Implementation of Emission Guidelines for Existing MSW Landfills</b>	23
<b>4.9. Legal Authority</b>	24
<b>5.0. Conclusion</b>	30

# List of Appendices

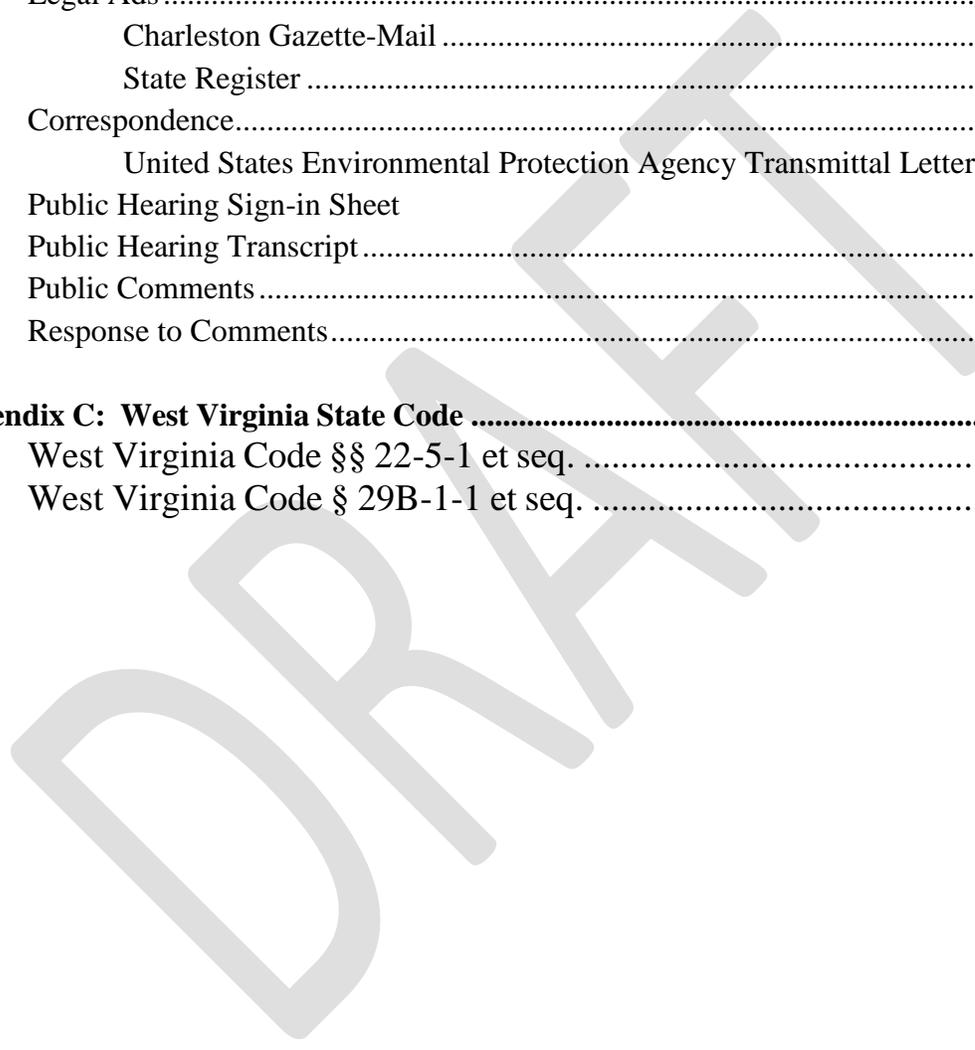
**Appendix A: 45 C.S.R. 23 - Control of Air Pollution from Municipal Solid Waste Landfills**

**Appendix B: Public Participation ..... Page B-**

- Public Hearing Certification ..... Page B-
- Public Notice ..... Page B-
- Legal Ads ..... Page B-
  - Charleston Gazette-Mail ..... Page B-
  - State Register ..... Page B-
- Correspondence..... Page B-
  - United States Environmental Protection Agency Transmittal Letter ..... Page B-
- Public Hearing Sign-in Sheet
- Public Hearing Transcript ..... Page B-
- Public Comments ..... Page B-
- Response to Comments ..... Page B-

**Appendix C: West Virginia State Code .....Page C-**

- West Virginia Code §§ 22-5-1 et seq. ....Page C-
- West Virginia Code § 29B-1-1 et seq. ....Page C-



## Acronyms, Abbreviations, and Symbols

CAA	Clean Air Act
C.F.R.	Code of Federal Regulations
C.S.R.	Code of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
EG	Emission Guidelines
EPA	Environmental Protection Agency
FR	Federal Register
GCCS	Gas Collection and Control System
LFG	Landfill Gas
M <sup>3</sup>	Cubic Meters
Mg/Yr	Megagrams per Year
MSW	Municipal Solid Waste
NMOC	Non-Methane Organic Compounds
NSPS	New Source Performance Standard
ppb	Parts per Billion
ppm	Parts per Million
U.S.	United States
WV	West Virginia
>	Greater Than
≥	Greater Than or Equal To
x 10 <sup>6</sup>	Million

[This page intentionally left blank.]

DRAFT

# West Virginia State Plan Revision for Municipal Solid Waste Landfills

## 1.0. Executive Summary

On August 29, 2016, the Environmental Protection Agency (EPA) published *Standards of Performance for Municipal Solid Waste Landfills*, under section (111)(b) of the Clean Air Act, as amended (CAA) and *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* under section (111)(d) of the CAA. The EPA established a new subpart (40 C.F.R. 60, Subpart XXX) that updated the Standards of Performance for Municipal Solid Waste (MSW) Landfills following its review of this source category rather than updating the existing subpart (40 C.F.R. 60, Subpart WWW). The requirements under 40 C.F.R. 60, Subpart XXX apply to any MSW landfill for which construction, reconstruction, or modification commenced after July 17, 2014. The EPA likewise established a new subpart when it revised the Emission Guidelines (EGs), 40 C.F.R. 60, Subpart Cf. The EPA established EGs and compliance times for the control of designated pollutants from designated MSW landfills that commenced construction, modification, or reconstruction on or before July 17, 2014 under 40 C.F.R. 60, Subpart Cf.

States with one or more existing MSW landfills that commenced construction, modification, or reconstruction on or before July 17, 2014, are required to submit a State Plan to the EPA that implements the EGs under 40 C.F.R. Part 60, Subpart Cf and per the requirements of 40 C.F.R. Part 60, Subpart B.

West Virginia is herein submitting a revision to its CAA §111(d) state plan for MSW landfills last approved by the EPA in 66 Fed. Reg. 28375, May 23, 2001. The revised plan addresses the EPA's August 29, 2016 final rule "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills" [81 Fed. Reg. 59276, August 29, 2016].

West Virginia legislative rule, 45 C.S.R. 23 - *Control of Air Pollution from Municipal Solid Waste Landfills*, incorporates by reference the MSW landfill requirements for new sources and implements the EGs and compliance times for existing sources pursuant to CAA § 111(d) to control MSW landfill air emissions, including nonmethane organic compounds (NMOC) and methane from the following facilities: (a) MSW landfills previously subject to the EGs and compliance times under 40 C.F.R. 60, Subpart Cc; (b) MSW landfills previously subject to the new source performance standards (NSPS) under 40 C.F.R. 60, Subpart WWW; (c) MSW landfills that commenced construction, reconstruction, or modification on or before July 17, 2014 and subject to the EGs and compliance times promulgated by the EPA under 40 C.F.R. 60, Subpart Cf; and (d) MSW landfills that commenced construction, reconstruction or modification after July 17, 2014 and subject to the NSPS under 40 C.F.R. 60, Subpart XXX. West Virginia legislative rule 45 C.S.R. 23 became effective on June 1, 2018 and is included as Appendix A of this plan.

The revised WV state plan submitted herein (the plan), is based on revisions to 45 C.S.R. 23 effective June 1, 2018 and adheres to the requirements for state plans provided under 40 C.F.R. 60, Subpart B, *Adoption and Submittal of State Plans for Designated Facilities*, and 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*. West Virginia is also herein providing notice to the EPA that 45 C.S.R. 23, effective June 1, 2018,

codified the incorporation by reference the NSPS under 40 C.F.R. Part 60, Subpart XXX, as of June 1, 2017.

## **2.0. Request**

WV has one or more existing MSW landfill that commenced construction, modification, or reconstruction on or before July 17, 2014 and therefore, is herein submitting a revision to its state plan and implementing the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*, as required by 40 C.F.R. 60 § 60.30f(a).

WV legislative rule, 45 C.S.R. 23 *Control of Air Pollution from Municipal Solid Waste Landfills*, establishes and adopts the EGs and compliance times of 40 C.F.R. 60, Subpart Cf. The owner or operator of an MSW landfill must comply with all applicable standards of performance, requirements, and provisions of 40 C.F.R. 60, Subpart Cf as set forth in section 7 of 45 C.S.R. 23, including any reference methods, performance specifications, and other test methods.

WV Department of Environmental Protection (DEP) is requesting that the EPA approve the *West Virginia State Plan Revision for Municipal Solid Waste Landfills* submitted in accordance with 40 C.F.R. § 60.30f(a). The plan implements the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*, under 45 C.S.R. 23 and fulfills the state's obligations under § 111(d)(1) of the CAA.

### 3.0. Background

The WV DEP last submitted a CAA § 111(d) MSW landfill plan to the EPA on May 29, 1998 with amendments dated May 15, 2000 and December 20, 2000. The EPA approved the WV plan that established emission limits for existing MSW landfills and provided for the implementation and enforcement of those limits [66 Fed. Reg. 28375, May 23, 2001].

Section 111 of the CAA requires the EPA to review and, if appropriate, revise standards of performance for new sources at least every eight years. On August 29, 2016, the EPA published the *Standards of Performance for Municipal Solid Waste Landfills*. To avoid possible confusion regarding which MSW landfills would be subject to the revised requirements, the EPA established a new subpart (40 C.F.R. 60, Subpart XXX) rather than updating the previous subpart (40 C.F.R. 60, Subpart WWW). The requirements in 40 C.F.R. 60, Subpart XXX apply to MSW landfills for which construction, reconstruction, or modification commenced after July 17, 2014.

Based on its review of the MSW landfill category, the EPA also decided to revise the EGs for existing sources that were last promulgated on March 12, 1996, as amended on June 16, 1998, February 24, 1999, and April 10, 2000. The EPA published 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*, on August 26, 2016. A summary of significant revisions follow. The EGs retained the design capacity thresholds of 2.5 million megagrams (Mg) and 2.5 million cubic meters (m<sup>3</sup>) but reduced the nonmethane organic compounds (NMOC) emission threshold for the installation and removal of a gas collection and control system (GCCS) from 50 Mg/yr to 34 Mg/yr for MSW landfills that were not closed by September 27, 2017. The EPA added an alternative site-specific emission threshold determination

methodology, referred to as “Tier 4” based on surface emissions monitoring, to specify the conditions under which an MSW landfill must install and operate a GCCS. The EPA also finalized a closed landfill subcategory for MSW landfills that closed on or before September 27, 2017. The EPA provided criteria to determine when it is appropriate to cap or remove all or a portion of the GCCS. The EPA addressed issues relating to MSW landfill gas treatment. The EPA revised wellhead operational standards and surface monitoring requirements. The standards in the EGs apply at all times, including periods of startup, shutdown, and malfunction

#### **4.0. State Plan Requirements**

WV legislative rule 45 C.S.R. 23 adopted the EGs provided in 40 C.F.R. 60, Subpart Cf. Provided below is a demonstration that the state plan satisfies the requirements for an MSW landfill state plan submittal in accordance with 40 C.F.R. 60, Subpart B and 40 C.F.R. 60, Subpart Cf.

#### **4.1. Source Inventory**

##### Subpart B [40 C.F.R. § 60.25(a)]

The plan shall include an inventory of all designated facilities.

##### Subpart Cf - Designated Facilities [40 C.F.R. § 60.31f]

A designated facility is each existing MSW landfill for which construction, reconstruction, or modification was commenced on or before July 17, 2014. Physical or operational changes made to an existing MSW landfill solely to comply with an EG are not considered a modification or reconstruction; and therefore, would not cause an existing MSW landfill to be subject to the NSPS requirements for new MSW landfills.

## WV Plan

Section 4 of 45 C.S.R. 23 provides the requirements for MSW landfills constructed, modified, or reconstructed on or after May 30, 1991 and before July 17, 2014. The following designated facilities are subject to the requirements for existing MSW landfills under section 7 of 45 C.S.R. 23:

- Each MSW landfill that commenced construction on or after May 30, 1991 and before July 17, 2014; or
- Each MSW landfill that commenced reconstruction or modification on or after May 30, 1991 and before July 17, 2014; and
- Each MSW landfill that was previously subject to 40 C.F.R. part 60, subpart WWW.

Section 6 of 45 C.S.R. 23 provides the requirements for MSW landfills constructed, modified, or reconstructed before May 30, 1991. The following designated facilities are subject to the requirements for existing MSW landfills under section 7 of 45 C.S.R. 23:

- Each MSW landfill that commenced construction before May 30, 1991; or
- Each MSW landfill that commenced reconstruction or modification before May 30, 1991; and
- Each MSW landfill that was previously subject to 40 C.F.R. part 60, subpart Cc.

45 C.S.R. 23 § 7.2 specifies the applicability requirements as adopted from 40 C.F.R. § 60.31f.

The WV source inventory for existing and new sources is provided in the tables below and includes active existing MSW landfills and existing MSW landfills in the closed landfill subcategory that closed on or before September 27, 2017. If there is an existing or new MSW landfill located in WV and not identified below, the owner or operator would be subject to the requirements of 45 C.S.R. 23 and this plan.

<b>Active MSW Landfill Source Inventory (Existing and New Sources)</b>		
<b>Facility Name</b>	<b>Facility ID#</b>	<b>Mailing Address</b>
Brooke/Velero	009-00053	Rt. 2, Box 410, Collier, WV 26035
Charleston Landfill	039-00461	P.O. Box 4514 Charleston, WV 25364
Capels Landfill aka McDowell County Landfill aka Copper Ridge Landfill	047-00111	36 Elkhorn St. Welch, WV 24801
Disposal Service, Inc.	079-00103	P.O. Box 4514 Charleston, WV 25364
Greenbrier County	025-00062	P.O. Box 1664 Lewisburg, WV 24901
HAM Sanitary Landfill LLC	063-00007	P.O. Box 576 Peterstown, WV 24963
Meadowfill	033-00128	1488 Dawson Dr., Suite 101 Bridgeport, WV 26330
Mercer County Landfill	055-00100	749 Frontage Road Princeton, WV 24740
Nicholas County Landfill	067-00098	P.O. Box 59 Calvin, WV 26660
L.C.S. Services aka North Mountain	003-00036	P.O. Box 1070 Hedgesville, WV 25427
Northwestern Landfill	107-00121	510 East Dry Run Road Parkersburg, WV 26104
Pocahontas County	075-00022	900 10 <sup>th</sup> Avenue Marlington, WV 24954
Raleigh County	081-00155	200 Fernandez Drive Beckley, WV 25801

<b>Active MSW Landfill Source Inventory (Existing and New Sources)</b>		
<b>Facility Name</b>	<b>Facility ID#</b>	<b>Mailing Address</b>
S&S Landfill	033-00129	4439 Good Hope Pike Clarksburg, WV 26301
Short Creek Landfill aka Northfork Landfill	069-00071	258 North Fork Road Wheeling, WV 26003
Sycamore Landfill	079-00105	4301 Sycamore Ridge Road Hurricane, WV 25526
Tucker County Landfill	093-00017	P.O. Box 445 Davis, WV 26260
Wetzel County Landfill	103-0034	Rt. 1 Box 156A New Martinsville, WV 26155

<b>MSW Closed Landfill Source Inventory</b>		
<b>Facility Name</b>	<b>Facility ID#</b>	<b>Mailing Address</b>
Webster County Landfill	101-0031	1350 Excelsior Road Webster Springs, WV 26288

#### **4.2. Emissions Inventory**

##### Subpart B [40 C.F.R. § 60.25(a)]

The plan shall include emissions data for the designated pollutants and information related to the emissions as specified in 40 C.F.R. 60, Appendix D. Data must be summarized, and the emission rates of designated pollutants must be correlated with applicable emission standards.

##### WV Plan

The tables below provide the NMOC emission rates for each active MSW landfill and for each MSW landfill in the closed landfill subcategory for MSW landfills that closed on or before September 27, 2017. MSW landfills in this subcategory continue to be subject to an NMOC emission threshold of 50 Mg/yr for determining when controls must be installed or can be removed.

**Active MSW Landfill Emissions Inventory Table**

<b>Facility Name</b>	<b>Is the Design Capacity &gt;2.5 x 10<sup>6</sup> Mg?</b>	<b>NMOC Emission Rate (Mg/yr)</b>	<b>Is the facility NMOC emission rate &gt; 34 Mg/yr?</b>	<b>Is the facility subject to Subpart Cf or XXX?</b>
Brooke Valero	Yes	338.40 <sup>a</sup>	Yes	XXX
Charleston Landfill	Yes	4.5 <sup>a</sup>	No	XXX
Capels Landfill aka McDowell County Landfill aka Copper Ridge Landfill	Yes	5.82 <sup>a</sup>	No	Cf
Disposal Service, Inc.	Yes	6.54 <sup>a</sup>	No	XXX
Greenbrier County	No	NA	No	Cf
H.A.M. Sanitary Landfill LLC	No	NA	NA	XXX
Meadowfill	Yes	10.10 <sup>a</sup>	No	XXX
Mercer County Landfill	Yes	2.90 <sup>a</sup>	No	XXX
Nicholas County Landfill	No	NA	NA	Cf
L.C.S. Services aka North Mountain	Yes	2.3 <sup>a</sup>	No	XXX
Northwestern Landfill	Yes	10.52 <sup>a</sup>	No	XXX
Pocahontas County	No	NA	NA	Cf
Raleigh County	Yes	25.06 <sup>a</sup>	No	Cf
S&S Landfill	Yes	4.03 <sup>a</sup>	No	XXX
Short Creek Landfill aka Northfork Landfill	Yes	608.3 <sup>a</sup>	Yes	XXX
Sycamore Landfill	Yes	36.5 <sup>b</sup>	Yes	Cf
Tucker County Landfill	Yes	3.37 <sup>a</sup>	No	XXX
Wetzel County Landfill	Yes	64.04 <sup>a</sup>	Yes	XXX

<sup>a</sup> Values are based on 2017 NMOC emission rate data submitted by each facility.

<sup>b</sup> Value is based on 5-year projected estimate submitted in 2016.

**Closed MSW Landfill Subcategory Emissions Inventory Table**

<b>Facility Name</b>	<b>Is the Design Capacity &gt;2.5 x 10<sup>6</sup> Mg?</b>	<b>NMOC Emission Rate (Mg/yr)</b>	<b>Is the facility NMOC emission rate &gt; 50 Mg/yr?</b>	<b>Is the facility subject to Subpart Cf or XXX?</b>
Webster County Landfill	No	NA	NA	Cf

### **4.3. Compliance Schedules and Increments of Progress**

#### Subpart B [40 C.F.R. §§ 60.24(a) and (e)]

Each plan shall include compliance schedules. Any compliance schedule extending more than 12 months from the date required for submittal of the plan must include legally enforceable increments of progress to achieve compliance for each designated facility or category of facilities.

*Compliance schedule* means a legally enforceable schedule specifying a date or dates by which a source or category of sources must comply with specific emission standards contained in a plan or with any increments of progress to achieve such compliance.

*Increments of progress* means steps to achieve compliance which must be taken by an owner or operator of a designated facility, including: (1) submittal of a final control plan for the designated facility; (2) awarding of contracts for emission control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modification; (3) initiation of on-site construction or installation of emission control equipment or process change; (4) completion of on-site construction or installation of emission control equipment or process change; and (5) final compliance.

#### Subpart Cf - Compliance Times [40 C.F.R. § 60.32f]

Planning, awarding of contracts, installing, and starting up MSW landfill air emission collection and control equipment must be completed within 30 months after the date the NMOC emission rate report shows NMOC emissions are equal to or exceed 34 Mg/yr (50 Mg/yr for the MSW closed landfill subcategory); or within 30 months after the date of the most recent NMOC emission

rate report shows the NMOC emissions are equal to or exceed 34 Mg/yr (50 Mg/yr for the MSW closed landfill subcategory), if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

WV Plan

Section 7.3 of 45 C.S.R. 23 establishes requirements for compliance times. The owner or operator is required to install and start up air emission collection and control equipment capable of meeting the requirements provided in 45 C.S.R. 23 § 7.4 by the compliance times in the table below.

<b>Compliance Times for Existing Facilities Subject to 40 C.F.R. 60, Subpart Cf set forth in Section 7 of 45 C.S.R. 23</b>		
<b>Category of Sources</b>	<b>Requirement</b>	<b>Compliance Date</b>
Each active MSW landfill required by §45-23-7.4 to install a GCCS	Install and start-up air emissions collection and control equipment capable of meeting requirements of 45CSR23 § 7.	30 months after NMOC emission rate report showed NMOC emissions $\geq$ 34 Mg/yr; OR  30 months after the most recent NMOC emission rate report shows NMOC emissions are $\geq$ 34 Mg/yr, if Tier 4 surface emissions monitoring shows a surface emission concentration $\geq$ 500 ppm methane
Each MSW landfill in the closed landfill subcategory required by §45-23-7.4 to install a GCCS	Install and start-up air emissions collection and control equipment capable of meeting requirements of 45CSR23 § 7.	30 months after the most recent NMOC emission rate report shows NMOC emissions are $\geq$ 50 Mg/yr; OR  30 months after the most recent NMOC emission rate report shows NMOC emissions are $\geq$ 50 Mg/yr for the closed MSW landfill subcategory, if Tier 4 surface emissions monitoring shows a surface emission concentration $\geq$ 500 ppm methane

The table below provides the increments of progress to achieve compliance for each designated facility or category of facilities that is required to install and start-up air emission collection and control equipment capable of meeting the requirements of 45 C.S.R. 23 § 7.4.

Facility Name or Category of Sources	Increment of Progress	Compliance Date
Any MSW landfill subject to Subpart Cf	Submit an initial design capacity report per §45-23-7.9.a.	June 1, 2019
Any MSW landfill subject to Subpart Cf with a design capacity $\geq 2.5 \times 10^6$ Mg and $2.5 \times 10^6$ m <sup>3</sup>	Submit an initial NMOC emission rate report per §45-23-7.9.c.	June 1, 2019
Any active MSW landfill subject to Subpart Cf with a design capacity $\geq 2.5 \times 10^6$ Mg and $2.5 \times 10^6$ m <sup>3</sup>	Prepare and submit to the Secretary a GCCS design plan, approved by a professional engineer that meets §45-23-7.9.d .	One year after the first NMOC emission rate report in which the NMOC emission rate $\geq 34$ Mg/yr
Any closed MSW landfill subcategory subject to Subpart Cf with a design capacity $\geq 2.5 \times 10^6$ Mg and $2.5 \times 10^6$ m <sup>3</sup>	Prepare and submit to the Secretary a GCCS design plan, approved by a professional engineer that meets §45-23-7.9.d .	One year after the first NMOC emission rate report where the NMOC emission rate $\geq 50$ Mg/yr
Each active MSW landfill required to install a GCCS under §45-23-7.4	Plan, award contracts, install, and start-up air emission collection and control equipment capable of meeting requirements of 45CSR23 § 7.	30 months after NMOC emission rate report showed NMOC emissions $\geq 34$ Mg/yr; OR  30 months after the most recent NMOC emission rate report shows NMOC emissions are $\geq 34$ Mg/yr, if Tier 4 surface emissions monitoring shows a surface emission concentration $\geq 500$ ppm methane

Facility Name or Category of Sources	Increment of Progress	Compliance Date
Each MSW landfill in the closed landfill subcategory required to install a GCCS under §45-23-7.4	Plan, award contracts, install, and start-up air emission collection and control equipment capable of meeting requirements of §45-23-7.	30 months after the most recent NMOC emission rate report shows NMOC emissions are $\geq 50$ Mg/yr; OR  30 months after the most recent NMOC emission rate report shows NMOC emissions are $\geq 50$ Mg/yr for the closed MSW landfill subcategory, if Tier 4 surface emissions monitoring shows a surface emission concentration $\geq 500$ ppm methane

The compliance schedule requirements under 45 C.S.R. 23 §7.3 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

#### 4.4. Emission Standards and Operational Standards

##### 4.4.a. Emission Standards

###### Subpart B [40 C.F.R. § 60.24(a)]

Each plan shall include emission standards. Emission standards shall either be based on an allowance system or prescribe allowable rates of emissions except when it is clearly impracticable. Emission standards shall apply to all designated facilities within the state.

###### Subpart Cf - MSW Landfill Emissions [40 C.F.R. § 60.33f]

Each owner or operator of an MSW landfill having a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume must collect and control emissions at each MSW landfill that meets the conditions of 40 C.F.R. § 60.33f(a); and either

install a GCCS or calculate an initial NMOC emission rate. The NMOC emission rate shall be recalculated annually except as allowed.

A state plan must include provisions for the installation of a GCCS that meets the requirements in 40 C.F.R. § 60.33f(b) and for the control of the gas collected from the MSW landfill using control devices that meet the requirements in 40 C.F.R. § 60.33f(c).

Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass and 2.5 million cubic meters by volume must submit an initial design capacity report per 40 C.F.R. § 60.38f(a).

#### WV Plan

The MSW landfill emission requirements are provided in 45 C.S.R. 23 § 7.4. Each owner or operator of a MSW landfill with a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume shall collect and control emissions at each MSW landfill that meet the conditions of §45-23-7.4.a. The collection system requirements are provided in §45-23-7.4.b; the control system requirements are provided in §45-23-7.4.c; and the emissions requirements are provided in §45-23-7.4.e. The design capacity requirements are provided in §45-23-7.4.d; each owner or operator of a MSW landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall either install a GCCS or calculate an initial NMOC emission rate for the landfill. The NMOC emission rate shall be recalculated annually except as allowed under §45-23-7.9.c.3.

Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass and 2.5 million cubic meters by volume must submit an initial design capacity report in accordance with §45-23-7.4.d. Removal criteria, adopted from 40 C.F.R. 60 § 60.33f(f), provided in section 7.4.f of 45 C.S.R. 23.

#### **4.4.b. Operational Standards**

Subpart Cf - Operational Standards for Collection and Control Systems [40 C.F.R. § 60.34f] and Specifications for Active Collection Systems [40 C.F.R. § 60.40f]

A state plan must include provisions for operational standards for an MSW landfill with a GCCS and specifications for active collection systems.

#### WV Plan

Specifications for active collection systems are provided in §45-23-7.5.a. The owner or operator shall site active collection wells, horizontal collectors, surface collectors or other extraction devices at a sufficient density throughout all gas producing areas using the procedures provided in §45-23-7.5.a.

Operational standards for GCCSs are provided in §45-23-7.5.b. Each owner or operator of an MSW landfill with a GCCS used to comply with sections 7.4.b and 7.4.c of 45 C.S.R. 23 must meet the operational standard requirements provided in §45-23-7.5.b.

The emissions and operational standards requirements of 45 C.S.R. 23 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

#### **4.5. Performance Testing, Monitoring, Recordkeeping, and Reporting**

##### **4.5.a. Compliance and Performance Testing**

###### Subpart B [40 C.F.R. § 60.24(b)(2)]

Test methods and procedures for determining compliance with the emission standards shall be specified in the state plan.

###### Subpart Cf - Test Methods and Procedures and Compliance Provisions [40 C.F.R. §§ 60.35f and 60.36f]

A state plan must include the 40 C.F.R. § 60.35f provisions to calculate the MSW landfill NMOC emission rate or to conduct a surface emission monitoring demonstration and the 40 C.F.R. § 60.36f compliance provisions.

###### WV Plan

Testing requirements provided in §45-23-7.6 include NMOC emission rate calculation requirements and surface emission monitoring demonstration requirements.

Compliance requirements are provided in §§45-23-7.7 and 7.2.e. The requirements for existing MSW landfills apply at all times, including periods of startup, shutdown or malfunction. During

periods of startup, shutdown or malfunction, the owner or operator shall comply with the work practice specified in 7.5.b.5 in lieu of compliance with the provisions in section 7.7.

The compliance and performance testing requirements of 45 C.S.R. 23 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

#### **4.5.b. Monitoring**

##### Subpart B [§ 60.25(b)]

Each plan shall provide for monitoring the compliance status with applicable emission standards.

##### Subpart Cf - Monitoring of Operations [§60.37f]

A state plan must include the monitoring provisions under 40 C.F.R. §60.37f, except as provided in § 60.38f(d)(2).

##### WV Plan

The monitoring requirements were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and are provided in §45-23-7.8.

The monitoring requirements of 45 C.S.R. 23 meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

#### **4.5.c. Recordkeeping and Reporting**

##### Subpart B [§§ 60.25 (b) and (c)]

Each plan shall, as a minimum, provide for legally enforceable procedures requiring owners or operators of designated facilities to maintain records and periodically report to the state information on the nature and amount of emissions from such facilities, and/or such other information as may be necessary to enable the state to determine whether such facilities are in compliance with applicable portions of the plan. Each plan shall, as a minimum, provide for periodic inspection and, when applicable, testing of designated facilities.

Each plan shall provide that information obtained by the state under paragraph (b) of this section be correlated with applicable emission standards and made available to the general public.

##### Subpart Cf - Recordkeeping and Reporting Guidelines [§§ 60.39f and 60.38f]

A state plan must include the 40 C.F.R. § 60.39f recordkeeping guidelines and the 40 C.F.R. § 60.38f reporting guidelines.

##### WV Plan

Recordkeeping and reporting requirements are established in §45-23-7.10 and §45-23-7.9, respectively, and are adopted from the EGs. Reporting requirements include the following: (a) Design capacity report; (b) Amended design capacity report; (c) NMOC emission rate report; (d) GCCS design plan; (e) Revised design plan; (f) Closure report; (g) Equipment removal report; (h) Annual report; (i) Initial performance test report; (j) Electronic reporting; (k) Corrective action and the corresponding timeline; (l) Liquids addition; and (m) Tier 4 notification.

45 C.S.R. 23 § 7.2.c specifies conditions requiring an owner or operator to obtain a Title V operating permit. The WV Title V operating program is codified under 45 C.S.R. 30 and was last approved by the EPA at 81 Fed. Reg. 7463, March 14, 2016.

Other sections of the state plan provide additional information requested by Subpart B. Please refer to the following sections of this plan:

- 4.5.a for information regarding compliance and performance testing;
- 4.5.b for information regarding monitoring;
- 4.6 for information regarding public participation;
- 4.8 for information regarding enforceable state mechanisms for implementation; and
- 4.9 for information regarding legal authority

The recordkeeping and reporting requirements of 45 C.S.R. 23 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

#### **4.6. Public Participation**

##### Subpart B [40 C.F.R. §§ 60.23(c) - (f)]

The state is required to conduct one or more public hearings on the plan revision. The state plan must include certification that the hearing for the state plan was held in accordance with § 60.23(d), a list of witnesses and their organizational affiliations, if any, appearing at the hearing, and a brief written summary of each presentation or written submission. Notice of the hearing shall be given at least 30 days prior to the hearing date and shall include the information required under §

60.23(d). The state shall prepare and retain, for a minimum of two years, a record of each hearing for inspection by any interested party. The record, at a minimum, shall contain a list of witnesses together with the text of each presentation. Certification that each hearing was held in accordance with 40 C.F.R. § 60.23(c) with the notice required by § 60.23(d) must be submitted with each state plan revision along with the list of witnesses and their organizational affiliations appearing at the hearing and a brief written summary of each presentation or written submission.

#### WV Plan

Prior to submitting this plan revision, the DEP allowed opportunity for public comment, held a public hearing on the plan, and provided notification to the EPA in a letter to Christina Fernandez dated July 17, 2018. The notice of the public hearing was published on July 20, 2018 as a Class 1 legal advertisement in the Charleston Newspapers and was published on July 20, 2018 in the WV State Register, providing at least 30-day notice prior to the hearing. The public hearing was held on August 20, 2018 at 601 57th Street, SE, Charleston, WV at 5:30 p.m.

The DEP certified in the transmittal letter that the public hearing was held in accordance with 40 C.F.R. § 60.23(d). Records of the hearing will be maintained in accordance with 40 C.F.R. § 60.23(e) and will be maintained for at least two years.

As required under 40 C.F.R. § 60.23(f), notices of the public hearing, the hearing sign-in sheet of attendees including their organizational affiliations, the transcript from the public hearing, the public comment received during the notice period and the response to comment document, are included in Appendix B of this plan.

The public participation requirements for this state plan revision meet the state plan requirements of 40 C.F.R. 60, Subparts B.

#### **4.7. Progress Reports**

##### Subpart B [§§ 60.25 (e and f)]

The state is required to submit progress reports in plan enforcement to the EPA on an annual basis.

The annual progress report must include the following information:

1. Enforcement actions initiated against designated facilities during the reporting period, under any emission standard or compliance schedule of the plan.
2. Identification of the achievement of any increment of progress required by the applicable plan during the reporting period.
3. Identification of designated facilities that have ceased operation during the reporting period.
4. Submission of emission inventory data as described in 40 C.F.R. § 60.25(a) for designated facilities that were not in operation at the time of plan development but began operation during the reporting period.
5. Submission of additional data as necessary to update the information submitted under 40 C.F.R. § 60.25(a) or in previous progress reports.
6. Submission of copies of technical reports on all performance testing on designated facilities conducted under 40 C.F.R. § 60.25(b)(2), complete with concurrently recorded process data.

## WV Plan

The WV DEP, DAQ last submitted the § 111(d) plan Annual Progress Report for Existing Municipal Solid Waste Landfills to Mr. Cosmo Servidio, EPA Region 3, on July 9, 2018 in accordance with the requirements of 40 C.F.R. §§ 60.25(e) and (f). WV DEP remains committed to submitting the progress plan enforcement reports to the EPA on an annual basis.

WV has fulfilled the progress report requirements of 40 C.F.R. 60, Subparts B.

### **4.8. Identification of Enforceable State Mechanisms for Implementation**

Provided herein are the enforceable mechanisms WV selected to implement the new source performance standards of 40 C.F.R. 60, Subpart XXX, *Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification after July 17, 2014*, and the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*.

#### **4.8.a. Implementation of New Source Performance Standards**

##### Subpart XXX

40 C.F.R. § 60.760 specifies test methods and procedures authorities provided under 40 C.F.R. § 60.764(a)(5) are retained by the EPA and are not transferred to the State.

## WV Plan

45 C.S.R. 23, *Control of Air Pollution from Municipal Solid Waste Landfills*, was promulgated by the WV DEP following the passage of Senate Bill 163 in the WV 2018 legislative session, with

signature by the Governor on February 27, 2018. Legislative rule 45 C.S.R. 23 became effective June 1, 2018 and is included as Appendix A to this plan.

The Secretary adopted and incorporated by reference 40 C.F.R. 60, Subpart XXX including any applicable reference methods, performance specifications, and other test methods, appended to the standard and contained in the subpart as of June 1, 2017 in section 3.1 of 45 C.S.R. 23. The authority for 40 C.F.R. § 60.764(a)(5) is retained by the EPA, as stated in paragraph §45-23-8.1.b.8.

§45-23-5 requires owners or operators of a new MSW landfill to comply with all applicable standards of performance, requirements, and provisions of 40 C.F.R. 60 Subpart XXX, including any reference methods, performance specifications and other test methods associated with Subpart XXX. No person shall construct or operate a new MSW landfill that results in a violation of 40 C.F.R. 60, Subpart XXX or 45 C.S.R. 23.

#### **4.8.b. Implementation of Emission Guidelines for Existing MSW Landfills**

##### Subpart Cf [40 C.F.R. § 60.30f]

If you are the Administrator of an air quality program with one or more existing MSW landfills, a state plan must be submitted that implements the EGs of 40 C.F.R. 60, Subpart Cf. The authority to approve alternative methods to determine the NMOC concentration or a site-specific methane generation rate constant (k) will not be delegated to the state.

## WV Plan

45 C.S.R. 23 was promulgated by the WV DEP following the passage of Senate Bill 163 during the WV 2018 legislative session, with signature by the Governor on February 27, 2018. Legislative rule 45 C.S.R. 23 became effective June 1, 2018 and is included as Appendix A to this plan. As stated in §45-23-8.1.b.8, the authority for 40 C.F.R. § 60.764(a)(5) to approve other methods to determine the NMOC concentration or a site specific methane generation rate constant as an alternative to the methods under 40 C.F.R. § 60.764(a)(3) and (4) is retained by the EPA.

45 C.S.R. 23 adopts the EGs and compliance times for MSW landfills in 40 C.F.R. 60, Subpart Cf. 45 C.S.R. 23 § 7.1 requires the owner or operator of an existing MSW landfill to comply with the applicable compliance times, requirements, and provisions of 40 C.F.R. 60, Subpart Cf as set forth in §45-23-7, including any reference methods, performance specification, and other test methods. No person shall construct, reconstruct, modify, or operate, or cause to be reconstructed, modified, or operated, an existing MSW landfill that results in a violation of 45 C.S.R. 23.

The WV DEP satisfied the EG implementation requirements of 40 C.F.R. 60, Subparts B and Cf.

### **4.9. Legal Authority**

Pursuant to 40 C.F.R. § 60.26(a), state plans must show that states have legal authority to carry out the plan including the authority to adopt emission standards and compliance schedules applicable to designated facilities and to enforce applicable laws, regulations, standards, compliance schedules and seek injunctive relief.

The DAQ has the statutory and regulatory authority under W.Va. Code §§ 22-5-1 et seq. (see Appendix C) to adopt and enforce rules and regulations to implement the State Plan. W. Va. Code § 22-5-4(a)(4) authorizes the Director to promulgate legislative rules relating to the control of air pollution. The DAQ promulgated legislative rule 45 C.S.R. 23 with an effective date of June 1, 2018, that incorporates by reference the Municipal Solid Waste Landfills NSPS (40 C.F.R. 60, Subpart XXX). Such incorporation by reference of model legislation is a permissible means of enacting law under West Virginia law. Additionally, 45 C.S.R. 23 adopts the EGs for existing MSW landfills under 40 C.F.R. 60, Subpart Cf.

The requirements for an existing MSW landfill are provided under section 7 of 45 C.S.R. 23. The applicable emission standards and other requirements for existing facilities are established in 45 C.S.R. 23 § 7.1. The pertinent provisions from the federal regulations relating to compliance schedules for existing facilities are contained in subsection 7.3 of 45 C.S.R. 23.

State plans must also demonstrate the state has authority to obtain information necessary to determine compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities.

Regarding the enforcement of applicable laws, regulations, standards, and compliance schedules, the DEP has several enforcement mechanisms available under state law, including permits, administrative orders, civil and criminal penalties, and injunctive relief, detailed below.

The emission standards and compliance schedules included in the plan are codified at 45 C.S.R. 23. Any violation of such standards or schedules constitutes a violation of a WV rule and is subject to civil penalties of up to \$10,000 for each day of violation and criminal penalties of up to \$25,000 for each day of violation and/or imprisonment for up to one year in jail (W.Va. Code § 22-5-6). In addition to civil and criminal penalties, the DEP may seek injunctive relief against any person in violation of 45 C.S.R. 23 (W. Va. Code § 22-5-7).

In addition to penalties and injunctive relief, the DEP may compel compliance with 45 C.S.R. 23 through the issuance of administrative orders. Under W. Va. Code §§ 22-5-4(a)(5) and (6) and 22-5-5, the DEP may issue administrative orders including cease and desist orders and order suspending, modifying or revoking permits. Such administrative orders may be appealed to the Air Quality Board, an administrative board with quasi-judicial powers. The DEP may also collect administrative penalties from a source in violation of a rule under an administrative consent order (W. Va. Code § 22-5-4(a)(18)).

Existing facilities may also be required to obtain permits, in which case, emission standards and compliance schedules from 45 C.S.R. 23 are included as enforceable permit conditions.<sup>1</sup> The existing facility may be required to obtain a preconstruction permit under W. Va. Code § 22-5-11 and/or an operating permit under W. Va. Code § 22-5-12.<sup>2</sup> The operating permit must ensure compliance with all applicable requirements, including the emission standards and compliance

---

<sup>1</sup> Under W. Va. Code § 22-5-6, the violation of a permit is subject to the same enforcement remedies as the violation of a rule.

<sup>2</sup> The State's applicable preconstruction permit program rules consist of 45 C.S.R. 13 for minor sources, 45 C.S.R. 14 for major PSD sources, and 45 C.S.R. 19 for major sources located in non-attainment areas. The State's operating permit program (Title V program) is found at 45 C.S.R. 30.

schedules required under 45 C.S.R. 23; W. Va. Code §§ 22-5-11 and 12; also see WV 45 C.S.R. 13 §§ 5.7 and 5.11 and WV 45 C.S.R. 30 Section 5 and 45 C.S.R. 30 Section 12.

In addition to the authority to adopt and enforce the applicable emission standards and compliance schedules, the DEP has authority to obtain information necessary to determine the compliance status of existing facilities, including requiring facilities to maintain compliance records, pursuant to W.Va. Code § 22-5-4(a)(14), which states:

(a) The director is authorized:

(14) To require any and all persons who are directly or indirectly discharging air pollutants into the air to file with the director such information as the director may require in a form or manner prescribed by him or her for such purpose, including, but not limited to, location, size and height of discharge outlets, processes employed, fuels used and the nature and time periods of duration of discharges. Such information shall be filed with the director, when and in such reasonable time, and in such manner as the director may prescribe.

The DEP also has the authority to conduct inspections and tests of existing facilities pursuant to W.Va. Code § 22-5-4 (a)(6) and (9), which state:

(a) The director is authorized:

(6) To consider complaints, subpoena witnesses, administer oaths, make investigations, and hold hearings relevant to the promulgation of rules and the entry of compliance orders hereunder; and

(9) To enter and inspect any property, premise, or place on or at which a source of air pollutants is located or is being constructed, installed or established at any reasonable time for the purpose of ascertaining the state of compliance with this article and rules promulgated under the provisions of this article. No person shall refuse entry or access to any authorized representative of the director who requests entry for purposes of inspection, and who presents appropriate credentials; nor shall any person obstruct, hamper or interfere with any such inspection: Provided, that nothing contained in this article eliminates any obligation to follow any process that may be required by law.

An additional authority which must be demonstrated in the plan is the agency's authority to require the use of monitors and require emission reports of existing facilities. This authority exists in W.Va. Code § 22-5-4 (a)(15), which states:

(15) To require the owner or operator of any stationary source discharging air pollutants to install such monitoring equipment or devices as the director may prescribe and to submit periodic reports on the nature and amount of such discharges to the director.

In addition to the general statutory authority discussed above, the DEP has specific regulatory authority under 45 C.S.R. 23 to require existing facilities to comply with requirements related to: emissions; gas collection and control systems; testing; compliance; monitoring; recordkeeping; and reporting, and in accordance with the applicable provisions of 40 C.F.R. 60, Subpart Cf. Furthermore, the DEP has authority to include conditions in any administrative orders or permits

issued to existing facilities to ensure compliance with such conditions. W.Va. Code §§ 22-5-4(a)(5), 22-5-5, 22-5-11, and 22-5-12.

Lastly, the state must have authority to make emission data from existing facilities available to the public. The DEP has such authority under W.Va. Code § 22-5-10, which states in pertinent part:

All air quality data, emission data, permits, compliance schedules, . . . shall be available to the public, except that upon a showing satisfactory to the director . . . that records, reports, data, or information . . . would divulge methods or processes entitled to protection as trade secrets . . . the director shall consider such records . . . confidential: Provided, that such confidentiality does not apply to the types and amounts of air pollutants discharged and that such records . . . may be disclosed to other officers, employees or authorized representatives of the state or of the federal environmental protection agency . . . Provided, however, That such officers, employees or authorized representatives . . . protect such records . . . to the same degree required of the director by this section. . . .

See, 45 C.S.R. 31 § 2.4 for the definition of the term “types and amounts of pollutants discharged.”

In addition to W.Va. Code § 22-5-10, the state’s Freedom of Information Act requires the DEP to make records available to the public upon request, unless such records specifically fall under one of the exemptions contained in the Act (one of which is an exemption for “trade secrets”). See, W.Va. Code §§ 29B-1-1 et seq.

In conclusion, the WV DEP possesses the requisite authority to adopt, implement, and enforce all necessary elements of the WV §§ 111(d) plan for MSW landfills, except as outlined in 40 C.F.R. §§ 60.764(a)(3), (4), and (5).

The WV DEP has satisfied the legal authority requirements of 40 C.F.R. 60, Subparts B.

## **5.0. Conclusion**

WV has one or more existing MSW landfill that commenced construction, modification, or reconstruction on or before July 17, 2014 and herein submits this revised plan to implement the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*, as required by 40 C.F.R. 60 § 60.30f(a).

WV legislative rule, 45 C.S.R. 23 *Control of Air Pollution from Municipal Solid Waste Landfills*, established and adopted the EGs and compliance times of 40 C.F.R. 60, Subpart Cf. The owner or operator of an MSW landfill located in WV must comply with all applicable standards of performance, requirements, and provisions of 40 C.F.R. 60, Subpart Cf set forth in section 7 of 45 C.S.R. 23, including any reference methods, performance specifications, and other test methods.

Having herein demonstrated that all required elements for the MSW landfills state plan submittal have been satisfied and having provided the mechanisms to implement and enforce such standards, the WV DEP respectfully requests the EPA to approve this *West Virginia State Plan Revision for Municipal Solid Waste Landfills*. The plan implements the EGs of 40 C.F.R. 60, Subpart Cf,

*Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills, under 45 C.S.R.*

23 and fulfills the state's obligations under § 111(d)(1) of the CAA.

DRAFT

[this page intentionally left blank]

# **APPENDICIES**

[this page intentionally left blank]

**APPENDIX A**

**45 C.S.R. 23**  
**FINAL RULE**

[this page intentionally left blank]



WEST VIRGINIA SECRETARY OF STATE

MAC WARNER

ADMINISTRATIVE LAW DIVISION

eFILED

3/22/2018 3:39 PM

**NOTICE OF FINAL FILING AND ADOPTION OF A LEGISLATIVE RULE AUTHORIZED  
BY THE WEST VIRGINIA LEGISLATURE**

AGENCY: Air Quality TITLE-SERIES: 45-23  
RULE TYPE: Legislative Amendment to Existing Rule: Yes Repeal of existing rule: No  
RULE NAME: Control of Air Pollution from Municipal Solid  
Waste Landfills  
CITE STATUTORY AUTHORITY: W. Va. Code § 22-5-4

The above rule has been authorized by the West Virginia Legislature.

Authorization is cited in (house or senate bill number) SB163

Section § 64-3-1(f) Passed On 2/27/2018 12:00:00 AM

This rule is filed with the Secretary of State. This rule becomes effective on the following date:

June 1, 2018

This rule shall terminate and have no further force or effect from the following date:

00/00/0000

**45CSR23**

**TITLE 45  
LEGISLATIVE RULE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AIR QUALITY**

**SERIES 23  
CONTROL OF AIR POLLUTION FROM MUNICIPAL  
SOLID WASTE LANDFILLS**

**§45-23-1. General.**

1.1. Scope. -- This rule establishes and adopts standards of performance pursuant to § 111(b) of the federal Clean Air Act (CAA) and establishes emission guidelines and compliance times pursuant to § 111(d) of the federal CAA for the control of certain designated pollutants from the following municipal solid waste landfill categories:

1.1.a. Municipal solid waste landfills subject to the emission guidelines and compliance times promulgated by the U.S. EPA under 40 CFR Part 60, Subpart Cc and set forth in section 6 of this rule;

1.1.b. Municipal solid waste landfills subject to the standards of performance promulgated by the U.S. EPA under 40 CFR Part 60, Subpart WW and set forth in section 4 of this rule;

1.1.c. Municipal solid waste landfills subject to the emission guidelines and compliance times promulgated by the U.S. EPA under 40 CFR Part 60, Subpart Cf and set forth in section 7 of this rule; and

1.1.d. Municipal solid waste landfills that commenced construction, reconstruction or modification after July 17, 2014 are subject to the standards of performance promulgated by the U.S. EPA under 40 CFR Part 60, Subpart XXX and set forth in section 5 of this rule;

1.2. Authority. -- W. Va. Code § 22-5-4.

1.3. Filing Date. -- March 22, 2018.

1.4. Effective Date. -- June 1, 2018.

1.5. This rule codifies general procedures and criteria to implement a program of specific standards of performance, emission guidelines, and compliance times for municipal solid waste landfills.

1.6. Neither compliance with the provisions of this rule nor the absence of specific language to cover particular situations constitutes approval or implies consent or condonation of any emission that is released in any locality in such a manner or amount as to cause or contribute to statutory air pollution. Neither does it exempt nor excuse any person from complying with other applicable laws, ordinances, regulations or orders of governmental entities having jurisdiction over municipal solid waste landfills.

1.7. Incorporation by Reference. -- Federal Counterpart Regulation. The Secretary has determined that a federal counterpart rule exists. In accordance with the Secretary's recommendation, and with limited exception, this rule incorporates by reference, 40 CFR Part 60 Subpart XXX effective June 1, 2017.

**§45-23-2. Definitions.**

2.1. "Administrator" means the Administrator of the United States Environmental Protection Agency or his or her designated representative.

2.2. “CFR” means the Code of Federal Regulations published by the Office of the Federal Register, National Archives and Records Service, General Services Administration.

2.3. “Clean Air Act” or “CAA” means the federal Clean Air Act, as amended, 42 U.S.C. § 7401, et seq.

2.4. “Closed landfill” means a landfill into which solid waste is no longer being placed and into which no additional solid wastes will be placed without first filing a notification of modification as prescribed in 40 CFR § 60.7(a)(4) (incorporated by reference into State law at 45CSR16). Once the owner or operator has filed a notification of modification, and places additional solid waste in the landfill, the landfill is no longer closed.

2.5. “Closed landfill subcategory” means a closed landfill that has submitted a closure report on or before September 27, 2017, as specified in subdivision 7.9.f below

2.6. “Existing” means each municipal solid waste landfill that commenced construction, reconstruction or modification on or before July 17, 2014.

2.7. “Modification” means an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the lateral or vertical expansion.

2.8. “Municipal solid waste landfill” or “MSWL” means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. A MSWL may also receive other types of Resource Conservation and Recovery Act (RCRA) Subtitle D wastes (40 CFR § 257.2), such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a MSWL may be separated by access roads. A MSWL may be publicly or privately owned. A MSWL may be a new MSWL, an existing MSWL, or a lateral expansion.

2.9. “Municipal solid waste landfill emissions” or “MSWL emissions” means gas generated by the decomposition of organic waste deposited in a MSWL or derived from the evolution of organic compounds in the waste.

2.10. “NMOC”, (Non Methane Organic Compounds) means nonmethane organic compounds, as measured according to the provisions of subsection 7.6. below.

2.11. “Person” means any and all persons, natural or artificial, including the state of West Virginia or any other state, the United States of America, any municipal, statutory, public or private corporation organized or existing under the laws of this or any other state or country, and any firm, partnership or association of whatever nature.

2.12. “ppm” means parts per million.

2.13. “Secretary” means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8.

2.14. “Treatment System” means a system that filters, de-waters, and compresses landfill gas for sale or beneficial use.

2.15. Other words and phrases used in this rule, unless otherwise indicated, shall have the meaning ascribed to them in 40 CFR Part 60 Subparts A, B, Cc, Cf, WWW and XXX as applicable. Words and

phrases not defined therein shall have the meaning given to them in the federal Clean Air Act.

**§45-23-3. Adoption of standards.**

3.1. The Secretary hereby adopts and incorporates by reference the standards of performance and definitions set forth in 40 CFR Part 60, Subparts B and XXX, including any applicable reference methods, performance specifications, and other test methods, which are appended to these standards and contained in this rule.

**§45-23-4. Requirements for municipal solid waste landfills constructed, modified, or reconstructed on or after May 30, 1991 and before July 17, 2014.**

4.1. The owner or operator of a MSWL under subsection 4.2 below shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR Part 60, Subpart Cf set forth in section 7 of this rule, including any reference methods, performance specifications, and other test methods. No person shall construct or operate a MSWL that results in a violation of this rule.

4.2. Applicability. The designated facility to which section 7 of this rule applies is each MSWL that:

4.2.a. Commenced construction on or after May 30, 1991 and before July 17, 2014; or

4.2.b. Commenced reconstruction or modification on or after May 30, 1991 and before July 17, 2014; and

4.2.c. Was previously subject to 40 CFR Part 60, Subpart WWW.

4.3. Each MSWL that was defined as “new” in the previous revision of 45CSR23 is defined as an “existing” MSWL.

**§45-23-5. Requirements for new municipal solid waste landfills.**

5.1. The owner or operator of a new MSWL under subsection 5.2 below shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR Part 60 Subpart XXX, including any reference methods, performance specifications, and other test methods associated with Subpart XXX. No person shall construct or operate a new MSWL that results in a violation of 40 CFR Part 60, Subpart XXX or this rule.

5.2. Applicability. -- The owner or operator of a MSWL that meets the following criteria shall be subject to the requirements for a new MWSL set forth in section 3 above. A new MSWL is a MSWL that either:

5.2.a. Commenced construction after July 17, 2014; or

5.2.b. Commenced reconstruction or modification after July 17, 2014.

5.3. Physical or operational changes made to a MSWL solely to comply with 40 CFR Part 60, Subparts Cc, Cf, or WWW are not considered construction, reconstruction or modification for the purposes of applicability.

5.4. Activities required by or conducted pursuant to a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), or the West Virginia Voluntary Remediation and Redevelopment Act (VRRRA) are not considered construction or modification for the purposes of applicability.

**§45-23-6. Requirements for existing municipal solid waste landfills constructed, reconstructed, or modified before May 30, 1991.**

6.1. The owner or operator of a MSWL under subsection 6.2 below shall comply with all applicable standards of performance, requirements and provisions of 40 CFR Part 60, Subpart Cf, set forth in section 7 of this rule, including any reference methods, performance specifications, and other test methods. No person shall construct or operate a MSWL that results in a violation of this rule.

6.2. Applicability. The designated facility to which section 7 of this rule applies is each MSWL that:

6.2.a. Commenced construction before May 30, 1991; or

6.2.b. Commenced reconstruction or modification before May 30, 1991; or

6.2.c. Each MSWL that was subject to 40 CFR Part 60, Subpart Cc and the requirements of this rule.

**§45-23-7. Requirements for existing municipal solid waste landfills.**

7.1. Requirements for existing MSWLs. -- The owner or operator of an existing MSWL under subsection 7.2 below shall comply with the applicable compliance times, requirements, and provisions of 40 CFR Part 60 Subpart Cf, set forth in section 7, including any reference methods, performance specifications, and other test methods. No person shall construct, reconstruct, modify or operate, or cause to be reconstructed, modified, or operated, an existing MSWL that results in a violation of this rule.

7.2. Applicability.

7.2.a. Each MSWL that commenced construction, reconstruction or modification before July 17, 2014 is subject to the requirements for an existing MSWL under section 7.

7.2.b. Physical or operational changes made to an existing MSWL solely to comply with the requirements of section 7 are not considered a modification or reconstruction.

7.2.c. Title V operating permits.

7.2.c.1. If the MSWL design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator is not required to obtain an operating permit under 45CSR30 unless the MSWL is otherwise subject to 45CSR30.

7.2.c.2. If the MSWL design capacity is greater than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator shall submit a timely and complete permit application in accordance with 45CSR30 within one year of the effective date of this rule.

7.2.c.3. The owner or operator is not required to maintain an operating permit under 45CSR30 for the MSWL after it is closed, if the landfill is not otherwise subject to the requirements of 45CSR30 and if either of the following conditions are met:

7.2.c.3.A. The landfill was never required to install and operate a gas collection and control system under subdivision 7.4 below; or

7.2.c.3.B. The landfill meets the conditions for control system removal specified in subdivision 7.4.f. below.

7.2.d. The owner or operator is not subject to the following reports when a MSWL is in the

closed landfill subcategory, if the owner or operator submitted the reports under the provisions of 40 CFR Part 60, Subpart WWW, and 45CSR23 on or before July 17, 2014:

7.2.d.1. Initial design capacity report per subdivision 7.9.a.

7.2.d.2. Initial or subsequent NMOC emission rate report per subdivision 7.9.c, provided that the most recent NMOC emission rate report indicated the NMOC emissions were below 50 Mg/yr.

7.2.d.3. Collection and control system design plan per subdivision 7.9.d.

7.2.d.4. Closure report per subdivision 7.9.f.

7.2.d.5. Equipment removal report per subdivision 7.9.g.

7.2.d.6. Initial annual report per subdivision 7.9.h.

7.2.d.7. Initial performance test report per subdivision 7.9.i.

7.2.e. The provisions of section 7 apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown or malfunction, the owner or operator shall comply with the work practice specified in 7.5.b.5 in lieu of the compliance provisions in 7.7.

7.3. Compliance times. -- The owner or operator shall install and start up MSWL air emission collection and control equipment capable of meeting the requirements provided in subsection 7.4 no later than:

7.3.a. Thirty months after an NMOC emission rate report shows NMOC emissions are equal to or exceed 34 megagrams per year; or

7.3.b. Thirty months after an NMOC emission rate report shows NMOC emissions are equal to or exceed 50 megagrams per year for the closed landfill subcategory; or

7.3.c. Thirty months after the most recent NMOC emission rate report shows NMOC emissions are equal to or exceed 34 megagrams per year, if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

7.3.d. Thirty months after the most recent NMOC emission rate report shows NMOC emissions are equal to or exceed 50 megagrams per year for the closed landfill subcategory, if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

7.4. Municipal solid waste landfill emissions requirements.

7.4.a. Each owner or operator of a MSWL with a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume shall collect and control MSWL emissions at each MSWL that meet the following conditions:

7.4.a.1. The landfill accepted waste at any time after November 8, 1987, or the MSWL has additional design capacity available for future waste deposition;

7.4.a.2. The landfill commenced construction, reconstruction or modification before July 17, 2014;

7.4.a.3. The landfill has an NMOC emission rate greater than or equal to 34 megagrams per year, or Tier 4 surface emissions monitoring shows a surface emission concentration 500 ppm methane or

greater; or

7.4.a.4. The landfill is in the closed landfill subcategory and has an NMOC emission rate greater than or equal to 50 megagrams per year, or Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

7.4.b. Collection system. -- For each MSWL that meets the criteria under subdivision 7.4.a, the gas collection and control system installation shall meet the requirements under paragraphs 7.4.b.1 through 7.4.b.3 and subdivision 7.4.c

7.4.b.1. The owner or operator shall install and start up a collection and control system that captures the gas generated within the landfill within 30 months after:

7.4.b.1.A. The first annual report in which the NMOC emission rate is equal to or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, per paragraph 7.9.d.4; or

7.4.b.1.B. The first annual NMOC emission rate report for a landfill in the closed landfill subcategory that the NMOC emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 50 megagrams per year, per paragraph 7.9.d.4; or

7.4.b.1.C. The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 ppm methane or greater per part 7.9.d.4.C.

7.4.b.2. An active collection system shall:

7.4.b.2.A. Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment;

7.4.b.2.B. Collect gas from each area, cell or group of cells in the landfill in which the initial solid waste has been placed for a period of five years or more if active or two years or more if closed or at final grade;

7.4.b.2.C. Collect gas at a sufficient extraction rate; and

7.4.b.2.D. Be designed to minimize off-site migration of subsurface gas.

7.4.b.3. A passive collection system shall:

7.4.b.3.A. Comply with subparagraphs 7.4.b.2.A, 7.4.b.2.B, and 7.4.b.2.D.; and

7.4.b.3.B. Be installed with liners installed on the bottom and all sides in all areas in which gas will be collected, per 40 CFR § 258.40.

7.4.c. Control system. -- Control devices shall meet the following requirements, except as provided in 60 CFR § 60.24.

7.4.c.1. The owner or operator shall design and operate a non-enclosed flare according to the parameters established in 40 CFR § 60.18 and 45CSR16, except as noted in subdivision 7.8.d; or

7.4.c.2. The owner or operator shall design and operate each control system to reduce NMOC by 98 weight percent, or when an enclosed combustion device is used for control, either reduce

NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at three percent (3%) oxygen or less. The reduction efficiency or concentration in ppm by volume shall be established by an initial performance test using the test methods set out in subdivision 7.6.d and shall be completed no later than 180 days after the initial startup of the approved control system. The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with section 7.

7.4.c.2.A. If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

7.4.c.2.B. The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in subsection 7.8.

7.4.c.2.C. For the closed landfill subcategory, the initial or most recent performance test to comply with section 4 or section 6 conducted on or before July 17, 2014 demonstrates compliance.

7.4.c.3. The owner or operator shall route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use, such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas shall be controlled according to either paragraphs 7.4.c.1 or 7.4.c.2.

7.4.c.4. All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of subdivisions 7.4.b or 7.4.c. Atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of subdivisions 7.4.b and 7.4.c.

7.4.d. Design capacity. -- Each owner or operator of an MSWL having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Secretary per subdivision 7.9.a. The owner or operator may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. The owner or operator shall document any density conversions and submit them with the report. Submittal of the initial design capacity report satisfies the requirements of section 7, except as provided in paragraphs 7.4.d.1 and 7.4.d.2.

7.4.d.1. The owner or operator shall submit an amended design capacity report if required by subdivision 7.9.b.

7.4.d.1.A. If the design capacity increase is the result of a modification that was commenced after July 17, 2014, then the landfill becomes a new MSWL subject to section 5.

7.4.d.1.B. If the design capacity increase is the result of a change in operating practices, density or some other change that is not a modification, then the landfill remains an existing MSWL subject to section 7.

7.4.d.2. The owner or operator shall comply with subdivision 7.4.e if there is an increase in the maximum design capacity of any MSWL with an initial design capacity less than 2.5 million megagrams or 2.5 million cubic meters that has a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters.

7.4.e. Emissions. -- Each owner or operator of a MSWL with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall either install a collection and

control system according to subdivisions 7.4.b and 7.4.c or calculate an initial NMOC emission rate for the landfill using the procedures specified in subdivision 7.6.a. The NMOC emission rate shall be recalculated annually except as provided in paragraph 7.9.c.3.

7.4.e.1. If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator shall:

7.4.e.1.A. Submit an annual NMOC emission rate report per 7.9.c except as provided in 7.9.c.3; and

7.4.e.1.B. Recalculate the NMOC emission rate annually per subdivision 7.6.a until either the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the landfill is closed.

7.4.e.1.B.1. If the initial or annual calculated NMOC emission rate is equal to or greater than 34 megagrams per year, the owner or operator shall either:

7.4.e.1.B.1.(a) Comply with subdivisions 7.4.b and 7.4.c;

7.4.e.1.B.1.(b) Calculate NMOC emissions using the next higher tier in section 7.6; or

7.4.e.1.B.1.(c) Conduct a surface emission monitoring demonstration according to paragraph 7.6.a.11.

7.4.e.1.B.2. The owner or operator shall submit a closure report per subdivision 7.9.f if the landfill is permanently closed, except for the exemption allowed under paragraph 7.2.d.4.

7.4.e.1.B.3. If the most recently calculated NMOC emission rate is equal to or greater than 50 megagrams per year for the closed landfill subcategory, the owner or operator shall either:

7.4.e.1.B.3.(a) Submit a gas collection and control system design plan per 7.9.d, except for the exemptions allowed under paragraph 7.2.d.3, and install a collection and control system per subdivisions 7.4.b and 7.4.c;

7.4.e.1.B.3.(b) Calculate NMOC emissions using the next higher tier in section 7.6; or

7.4.e.1.B.3.(c) Conduct a surface emission monitoring demonstration according to the requirements of paragraph 7.6.a.11.

7.4.e.2. If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2 or 3 procedures, the owner or operator shall either:

7.4.e.2.A. Submit a collection and control system design plan prepared by a professional engineer to the Secretary within one year as required by subdivision 7.9.d, except for the exemption allowed under 7.2.d.3;

7.4.e.2.B. Calculate the NMOC emissions using a higher tier in section 7.6; or

7.4.e.2.C. Conduct a surface emission monitoring demonstration according to the requirements under paragraph 7.6.a.11.

7.4.e.3. For the closed landfill subcategory, if the calculated NMOC emission rate is equal to

or greater than 50 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator shall either:

7.4.e.3.A. Submit a collection and control system design plan as required by subdivision 7.9.d, except for the exemption allowed under 7.2.d.3;

7.4.e.3.B. Calculate NMOC emissions using a higher tier in section 7.6; or

7.4.e.3.C. Conduct a surface emission monitoring demonstration according to the requirements under paragraph 7.6.a.11.

7.4.f. Removal Criteria. -- The owner or operator may cap, remove or decommission the collection and control system if the following criteria are met:

7.4.f.1. The landfill is a closed landfill and a closure report was submitted to the Secretary per subdivision 7.9.f.;

7.4.f.2. The collection and control system has been in operation a minimum of 15 years, or the owner or operator can demonstrate that the gas collection and control system is unable to operate for 15 years due to declining gas flow;

7.4.f.3. The NMOC emission rate at the landfill is less than 34 megagrams per year on three successive test dates, calculated per subdivision 7.6.b. The test dates shall be a minimum of 90 days apart and a maximum of 180 days apart; and

7.4.f.4. The NMOC emission rate for the closed landfill subcategory is less than 50 megagrams per year on three successive test dates, as calculated per subdivision 7.6.b. The test dates shall be a minimum of 90 days apart and a maximum of 180 days apart.

#### 7.5. Collection and Control Systems Requirements.

##### 7.5.a. Specifications for Active Collection Systems.

7.5.a.1. To comply with subdivision 7.4.b, the owner or operator shall site active collection wells, horizontal collectors, surface collectors or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures, unless the Secretary has approved alternative procedures.

7.5.a.1.A. A professional engineer shall certify interior collection devices to achieve comprehensive control of surface gas emissions. The following factors shall be addressed in the design:

7.5.a.1.A.1. Depths of refuse;

7.5.a.1.A.2. Refuse gas generation rates and flow characteristics;

7.5.a.1.A.3. Cover properties;

7.5.a.1.A.4. Gas system expandability;

7.5.a.1.A.5. Leachate and condensate management;

7.5.a.1.A.6. Accessibility;

7.5.a.1.A.7. Compatibility with filling operations;

7.5.a.1.A.8. Integration with closure end use;

7.5.a.1.A.9. Air intrusion control;

7.5.a.1.A.10. Corrosion resistance;

7.5.a.1.A.11. Fill settlement;

7.5.a.1.A.12. Resistance to the refuse decomposition heat; and

7.5.a.1.A.13. Ability to isolate individual components or sections for repair or troubleshooting without shutting down the entire collection system.

7.5.a.1.B. The sufficient density of gas collection devices determined in paragraph 7.5.a.1 shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

7.5.a.1.C. The placement of gas collection devices shall control all gas producing areas, except as provided by paragraphs 7.5.a.1.C.1 and 7.5.a.1.C.2.

7.5.a.1.C.1. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented per subdivision 7.10.d. The documentation shall provide the nature, date of deposition, location, and amount of asbestos or nondegradable material deposited in the area and shall be provided to the Secretary upon request.

7.5.a.1.C.2. Any nonproductive area of the landfill may be excluded from control, provided that the owner or operator demonstrates that the total of all excluded areas contributes less than one percent (1%) of the total amount of NMOC emissions from the landfill. The owner or operator shall document the amount, location, and age of the material and provide that information to the Secretary upon the Secretary's request. The owner or operator shall make a separate NMOC emissions estimate for each section proposed for exclusion and shall compare the sum of all such sections to the NMOC emissions estimate for the entire landfill.

7.5.a.1.C.2.(a). The NMOC emissions from each section proposed for exclusion shall be calculated using Equation 1:

$$Q_i = 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9}) \quad (\text{Eq. 1})$$

Where:

$Q_i$  = NMOC emission rate from the  $i^{\text{th}}$  section, megagrams per year.

$k$  = Methane generation rate constant, year<sup>-1</sup>.

$L_o$  = Methane generation potential, cubic meters per megagram solid waste.

$M_i$  = Mass of the degradable solid waste in the  $i^{\text{th}}$  section, megagram.

$t_i$  = Age of the solid waste in the section, years.

$C_{NMOC}$  = Concentration of NMOC, ppm by volume.

$3.6 \times 10^{-9}$  = Conversion factor.

7.5.a.1.C.2.(b). If the owner or operator proposes to exclude or cease gas collection and control from nonproductive, physically separated (e.g., separately lined), closed areas that already have gas collection systems, the owner or operator shall calculate NMOC emissions from each physically separated closed area using either Equation 4 in section 7.6 or Equation 1.

7.5.a.1.C.3. The owner or operator shall use the values for  $k$  and  $C_{NMOC}$  determined by field testing if the owner or operator performed field testing to determine the NMOC emission rate or the radii

of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If the owner or operator did not perform field testing, the owner or operator shall use the default values for  $k$ ,  $L_o$ , and  $C_{NMOC}$  provided in section 7.6 or the alternative values from section 7.6. The owner or operator may subtract the mass of nondegradable solid waste contained within the given section from the total mass of the section when estimating emissions, provided that the owner or operator documents the nature, location, age, and amount of the nondegradable material per subparagraph 7.5.a.1.C.1.

7.5.a.2. To comply with subdivision 7.4.b, the owner or operator shall construct the gas collection devices using the following equipment or procedures:

7.5.a.2.A. The owner or operator shall construct the landfill gas extraction components of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel or other nonporous corrosion resistant material of suitable dimensions to:

7.5.a.2.A.1. Convey projected amounts of gases;

7.5.a.2.A.2. Withstand installation, static, and settlement forces; and

7.5.a.2.A.3. Withstand planned overburden or traffic loads.

7.5.a.2.A.4. The collection system shall extend as necessary to comply with emission and migration standards.

7.5.a.2.A.5. The collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. The perforations shall be situated to prevent excessive air infiltration.

7.5.a.2.B. Vertical wells shall:

7.5.a.2.B.1 Be placed to avoid endangering underlying liners; and

7.5.a.2.B.2. Shall address the occurrence of water within the landfill.

7.5.a.2.C. Holes and trenches constructed for piped wells and horizontal collectors shall be a sufficient cross-section to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill.

7.5.a.2.D. Collection devices shall be designed to prohibit indirect short circuiting of air into the cover or refuse into the collection system or gas into the air.

7.5.a.2.E. The dimension of any gravel used around pipe perforations shall be sized not to penetrate or block the perforations.

7.5.a.2.F. Collection devices may be connected to the collection header pipes below or above the landfill surface.

7.5.a.2.F.1. The connector assembly surface emission monitor shall include a positive closing throttle valve, any necessary seals and couplings, access couplings, and at least one sampling port.

7.5.a.2.F.2. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel or other nonporous material of suitable thickness to prevent discharge.

7.5.a.3. To comply with subdivision 7.4.c, the owner or operator shall convey the landfill gas

through header piping to a control system in compliance with subdivision 7.4.c. The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment and shall meet the following requirements:

7.5.a.3.A. For existing collection systems, the flow data shall be used to project the maximum flow rate. If flow data does not exist, follow the requirements in 7.5.a.3.B.

7.5.a.3.B. For new collection systems, the maximum flow rate shall comply with paragraph 7.7.a.1.

7.5.b. Operational standards for collection and control systems. -- Each owner or operator of an MSWL with a gas collection and control system used to comply with subdivisions 7.4.b and 7.4.c shall:

7.5.b.1. Operate the collection system such that gas is collected from each area, cell or group of cells in the MSWL that solid waste has been in place for:

7.5.b.1.A. Five years or more if active; or

7.5.b.1.B. Two years or more if closed or at final grade.

7.5.b.2. Operate the collection system with negative pressure at each wellhead except under the following conditions:

7.5.b.2.A. A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. The owner or operator shall submit these records with the annual reports per paragraph 7.9.h.

7.5.b.2.B. Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan to meet the requirements of 7.9.d.

7.5.b.2.C. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. The owner or operator shall obtain approval from the Secretary for all design changes per subdivision 7.9.d.

7.5.b.3. The owner or operator shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Centigrade (131 degrees Fahrenheit). The owner or operator may establish a higher value operating temperature at a particular well if the owner or operator satisfies all criteria below:

7.5.b.3.a. The owner or operator shall submit a higher operating value demonstration to the Secretary; and

7.5.b.3.b. The supporting data shall demonstrate that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens; and

7.5.b.3.c. The Secretary approved the higher value operating temperature.

7.5.b.4. The owner or operator shall operate the collection system to maintain the methane concentration below 500 ppm above the background at the landfill surface. To determine if this level is exceeded, the owner or operator shall:

7.5.b.4.A. Conduct surface testing using an organic vapor analyzer, flame ionization detector or other portable monitor meeting the specifications in subdivision 7.7.d.;

7.5.b.4.B. Conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations;

7.5.b.4.C. Monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required; and

7.5.b.4.E. Develop a surface monitoring design plan that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals.

7.5.b.4.F. To determine if the level established in 7.5.b.4. is exceeded, the owner or operator may:

7.5.b.4.F.1 Establish an alternative traversing pattern that ensures equivalent coverage.;  
and

7.5.b.4.F.2. Exclude from the surface testing areas with steep slopes or other dangerous areas.

7.5.b.5. Vent all collected gases to a control system designed and operated in compliance with subdivision 7.4.c. In the event the collection or control system stops operating, the owner or operator shall:

7.5.b.5.A. Shut down the gas mover system; and

7.5.b.5.B. Close all valves in the collection and control system contributing to venting of the gas to the atmosphere within one hour of the collection or control system not operating.

7.5.b.6. Operate the control system at all times when the collected gas is routed to the system.

7.5.b.7. Take corrective action as specified in paragraphs 7.7.a.3 and 7.7.a.4 or subdivision 7.7.c if monitoring demonstrates that the operational requirements in paragraphs 7.5.b.2, 7.5.b.3, or 7.5.b.4 are not satisfied. If the owner or operator takes corrective actions per subsection 7.7, the Secretary shall not consider the monitored exceedance a violation of the operational requirements in this section.

## 7.6. Testing requirements

### 7.6.a. NMOC emission rate:

7.6.a.1. The owner or operator shall calculate the NMOC emission rate using either Equation 2 or Equation 3 below:

7.6.a.2. The owner or operator may use both Equation 2 and Equation 3 if:

7.6.a.2.A. The owner or operator knows the actual year-to-year solid waste acceptance rate for part of the life of the landfill; or

7.6.a.2.B. The owner or operator does not know the actual year-to-year solid waste acceptance rate for part of the life of the landfill.

7.6.a.3. The owner or operator shall use the following values in both Equation 2 and Equation 3:

7.6.a.3.A.  $k$  is 0.05 per year,

7.6.a.3.B.  $L_o$  is 170 cubic meters per megagram and

7.6.a.3.C.  $C_{NMOC}$  is 4,000 ppm by volume as hexane

7.6.a.3.D. If the landfill is located in geographical areas with a 30-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorological site, the  $k$  value is 0.02 per year.

7.6.a.4. The owner or operator shall use Equation 2 if it knows the actual year-to-year solid waste acceptance rate. When calculating the value for  $M_i$ , the owner or operator may subtract the mass of nondegradable solid waste from the total mass of solid waste in a particular section of the landfill, if the owner or operator maintains documentation of the nature and amount of such wastes.

$$M_{NMOC} = \sum_{i=1}^n 2kL_oM_i (e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9}) \quad \text{Equation 2}$$

Where:

$M_{NMOC}$  = Total NMOC emission rate from the landfill, megagrams per year.

$k$  = Methane generation rate constant, year<sup>-1</sup>.

$L_o$  = Methane generation potential, cubic meters per megagram solid waste.

$M_i$  = Mass of solid waste in the  $i^{\text{th}}$  section, megagrams.

$t_i$  = Age of the  $i^{\text{th}}$  section, years.

$C_{NMOC}$  = Concentration of NMOC, ppm by volume as hexane.

$3.6 \times 10^{-9}$  = Conversion factor.

7.6.a.5. The owner or operator shall use Equation 3 if it knows the actual year-to-year solid waste acceptance rate. When calculating the value of  $R$ , the owner or operator may subtract the mass of nondegradable solid waste from the total mass of solid waste in a particular section of the landfill, if the owner or operator maintains documentation of the nature and amount of such wastes.

$$M_{NMOC} = 2L_oR(e^{-kc} - e^{-kt})C_{NMOC}(3.6 \times 10^{-9}) \quad \text{Equation 3}$$

Where:

$M_{NMOC}$  = Mass emission rate of NMOC, megagrams per year.

$L_o$  = Methane generation potential, cubic meters per megagram solid waste.

$R$  = Average annual acceptance rate, megagrams per year.

$k$  = Methane generation rate constant, year<sup>-1</sup>.

$t$  = Age of landfill, years.

$C_{NMOC}$  = Concentration of NMOC, ppm by volume as hexane.

$c$  = Time since closure, years; for an active landfill  $c = 0$  and  $e^{-kc} = 1$ .

$3.6 \times 10^{-9}$  = Conversion factor.

7.6.a.6. Tier 1 procedures. -- The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year:

7.6.a.6.A. If the owner or operator calculates the NMOC emission rate by the methods specified in paragraphs 7.6.a.1 through 7.6.a.3 and it is less than 34 megagrams per year, then the owner or operator shall submit an NMOC emission rate report according to subdivision 7.9.c. below and shall recalculate the NMOC mass emission rate annually as required by subdivision 7.4.e.

7.6.a.6.B. If the owner or operator calculates the NMOC emission rate by the methods specified in paragraphs 7.6.a.1 through 7.6.a.3 and it is equal to or greater than 34 megagrams per year, then the owner or operator shall either:

7.6.a.6.B.1. Submit a gas collection and control system design plan within one year as specified in subdivision 7.9.d and install and operate a gas collection and control system within 30 months according to subdivisions 7.4.b and 7.4.c; or

7.6.a.6.B.2. Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures in paragraph 7.6.a.7; or

7.6.a.6.B.3. Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures in paragraph 7.6.a.9.

7.6.a.7. Tier 2 -- NMOC Calculation. The owner or operator shall determine the site specific NMOC concentration using the following sampling procedure:

7.6.a.7.A. Install a minimum of two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least two years;

7.6.a.7.B. If the landfill is larger than 25 hectares in area, the owner or operator is required to take only 50 samples, with the probes evenly distributed across the sample area;

7.6.a.7.C. The owner or operator should locate the sample probes so as to avoid known areas of nondegradable solid waste;

7.6.a.7.D. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of 40 CFR Part 60, Appendix A and 45CSR16;

7.6.a.7.E. The owner or operator may take composite samples from different probes into a single cylinder: provided, that the owner or operator takes equal sample volumes from each probe and:

7.6.a.7.E.1. The owner or operator shall record the sampling rate, collection times, beginning and ending cylinder vacuums or alternative volume measurements for each composite to verify that composite volumes are equal;

7.6.a.7.E.2. Composite sample volumes should not be less than one liter unless the owner or operator can provide evidence to substantiate the accuracy of smaller volumes; and

7.6.a.7.E.3. The owner or operator shall terminate compositing before the cylinder approaches ambient pressure when the measurement accuracy diminishes.

7.6.a.7.F. If the owner or operator takes more than the required number of samples, the owner or operator shall use all samples in the analysis.

7.6.a.7.G. The owner or operator shall divide the NMOC concentration from Method 25 or 25C by six to convert from  $C_{\text{NMOC}}$  as carbon to  $C_{\text{NMOC}}$  as hexane.

7.6.a.7.H. If the landfill has an active or passive gas removal system in place, the owner or operator may collect Method 25 or 25C samples from these systems instead of surface probes: provided, that the owner or operator can demonstrate that the removal system sampling is as representative as the two sampling probe per hectare requirement of subparagraph 7.6.a.7.A.

7.6.a.7.I. If the landfill has active collection systems, the owner or operator may collect samples from the common header pipe according to the following:

7.6.a.7.I.1. The owner or operator shall use a sample location upstream from any gas moving, condensate removal or treatment system equipment; and

7.6.a.7.I.2. The owner or operator shall collect a minimum of three samples.

7.6.a.8. Tier 2 procedures.

7.6.a.8.A. The owner or operator shall submit the NMOC concentration results and the NMOC mass emission rate per paragraph 7.9.j.2 within 60 days from the date the owner or operator determined the NMOC concentration and corresponding NMOC emission rate.

7.6.a.8.B. The owner or operator shall recalculate the NMOC mass emission rate using Equation 2 or Equation 3 using the average site-specific NMOC concentration from the collected samples instead of the default value provided in paragraph 7.6.a.3.

7.6.a.8.C. If the resulting NMOC mass emission rate is less than 34 megagrams per year, the owner or operator shall submit an estimate of NMOC emissions in the NMOC emission rate report according to subdivision 7.9.c and shall recalculate the NMOC mass emission rate annually per subdivision 7.4.e. The owner or operator shall retest the site-specific NMOC concentration every five years using the methods specified in subsection 7.6.

7.6.a.8.D. If the owner or operator calculates the NMOC mass emission rate using the Tier 2 site specific NMOC concentration and it is equal to or greater than 34 megagrams per year, the owner or operator shall either:

7.6.a.8.D.1. Submit a gas collection and control system design plan within one year per subdivision 7.9.d and install and operate a gas collection and control system within 30 months per subdivisions 7.4.b and 7.4.c;

7.6.a.8.D.2. Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site specific methane generation rate using the Tier 3 procedures specified in paragraph 7.6.a.9.; and

7.6.a.8.D.3. Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph 7.6.a.11.

7.6.a.9. Tier 3. -- Site specific methane generate rate constant. The owner or operator shall:

7.6.a.9.A. Determine the site-specific methane generation rate constant using the procedures in Method 2E of 40 CFR Part 60, Appendix A and 45CSR16;

7.6.a.9.B. Estimate the NMOC mass emission rate using Equation 2 or Equation 3 with the site-specific methane generation rate constant and the site-specific NMOC concentration as determined in paragraph 7.6.a.7;

7.6.a.9.C. Compare the resulting NMOC mass emission rate to the standard of 34 megagrams per year;

7.6.a.9.D. If the NMOC mass emission rate calculated using the Tier 2 site specific NMOC concentration and the Tier 3 site specific methane generation rate is equal to or greater than 34 megagrams per year, either:

7.6.a.9.D.1. Submit a gas collection and control system design plan within one year as per subdivision 7.9.d and install and operate a gas collection and control system within 30 months according to subdivisions 7.4.b and 7.4.c; or

7.6.a.9.D.2. Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph 7.6.a.11.

7.6.a.9.E. If the NMOC mass emission rate is less than 34 megagrams per year, the owner or operator shall:

7.6.a.9.E.1. Recalculate the NMOC mass emission rate annually using Equation 2 or Equation 3, using the site-specific Tier 2 NMOC concentration and the Tier 3 methane generation rate constant; and

7.6.a.9.E.2. Submit the NMOC emission rate report per subdivision 7.9.c.

7.6.a.9.F. Use the value obtained for the methane generation rate constant in all subsequent annual NMOC emission rate calculations. The methane generation rate constant is calculated only once.

7.6.a.10. Other methods. -- The owner or operator may use other methods to determine the NMOC concentration or a site specific methane generation rate constant as an alternative to the methods required by paragraphs 7.6.a.3 and 7.6.a.4 if the Administrator approved the method in advance.

7.6.a.11. Tier 4. -- Surface emission monitoring demonstration.

7.6.a.11.A. Applicability. The owner or operator shall only use Tier 4 procedures if the unit can demonstrate the following:

7.6.a.11.A.1. Surface methane emissions are below 500 ppm;

7.6.a.11.A.2. NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2 procedures;

7.6.a.11.A.3. The landfill meets the requirements of subparagraph 7.6.a.11.J below; and

7.6.a.11.A.4. NMOC emissions are less than 50Mg/yr as indicated by both Tier 1 and Tier 2; if NMOC emissions are greater than 50Mg/yr, the owner or operator shall not use Tier 4.

7.6.a.11.B. The owner or operator shall conduct surface emission monitoring quarterly according to the requirements in paragraph 7.6.a.11.

7.6.a.11.C. The owner or operator shall measure methane surface concentrations using an organic vapor analyzer, flame ionization detector or other portable monitor that meets the requirements of subdivision 7.7.d along the entire perimeter of the landfill and along a pattern that traverses the landfill at less than 30 meter intervals.

7.6.a.11.D. The owner or operator shall determine the background concentration by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill.

7.6.a.11.E. The owner or operator shall perform surface emission monitoring per Section

8.3.1 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16, except that the probe inlet shall be placed no more than five centimeters above the landfill surface and measured with a mechanical device such as a wheel on a pole.

7.6.a.11.E.1. The owner or operator shall use a wind barrier, similar to a funnel, when onsite average wind speed exceeds four miles per hour or two meters per second or gusts exceeding ten miles per hour. The owner or operator shall also determine average on-site wind speed in an open area at five minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier shall surround the surface emission monitor and shall be placed on the ground to ensure wind turbulence is blocked. The owner or operator shall not conduct surface emission monitoring if average wind speed exceeds 25 miles per hour.

7.6.a.11.E.2. The owner or operator shall monitor landfill surface areas using a device that meets the specifications of subdivision 7.7.d where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations.

7.6.a.11.F. The owner or operator shall maintain records of surface emission monitoring per subdivision 7.10.g and submit a Tier 4 surface emissions report per subparagraph 7.9.d.4.C.

7.6.a.11.G. The owner or operator shall submit a gas collection and control system design plan if there is any measured methane 500 ppm or greater from the surface of the landfill within one year of the first measured methane concentration of 500 ppm or greater from the surface of the landfill according to subdivision 7.9.d. The owner or operator shall install and operate a gas collection and control system according to subdivisions 7.4.b and 7.4.c within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2 requirements.

7.6.a.11.H. After four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, if there is no measured methane concentration of 500 ppm or greater from the landfill surface, the owner or operator shall continue quarterly surface emission monitoring per Tier 4 requirements.

7.6.a.11.I. After four consecutive quarterly monitoring periods at a closed landfill, if there is no measured methane concentration of 500 ppm or greater from the landfill surface, the owner or operator shall conduct annual surface emission monitoring using the Tier 4 methods.

7.6.a.11.J. If the owner or operator installed and operated a collection and control system that is not required by section 7, then the collection and control system shall meet the following criteria:

7.6.a.11.J.1. Preceding the Tier 4 surface emissions monitoring demonstration, the gas collection and control system shall have operated for a minimum 6,570 out of 8,760 hours; and

7.6.a.11.J.2. During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system shall operate as it would normally to collect and control as much landfill gas as possible.

7.6.b. The owner or operator shall calculate the NMOC emission rate after the installation and startup of a collection and control system to determine when the system can be capped, removed or decommissioned per subdivision 7.4.f, using Equation 4:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC} \quad \text{Equation 4}$$

Where:

$M_{\text{NMOC}}$  = Mass emission rate of NMOC, megagrams per year.

$Q_{\text{LFG}}$  = Flow rate of landfill gas, cubic meters per minute.

$C_{\text{NMOC}}$  = NMOC concentration, ppm by volume as hexane.

7.6.b.1. The owner or operator shall determine the flow rate of landfill gas,  $Q_{\text{LFG}}$ , by measuring the total landfill gas flow rate at the common header pipe leading to the control system using a gas flow measuring device calibrated per Section 10 of Method 2E of 40 CFR Part 60, Appendix A and 45CSR16.

7.6.b.2. The owner or operator shall determine the average NMOC concentration,  $C_{\text{NMOC}}$ , by collecting and analyzing landfill gas sampled from the common header pipe prior to the gas moving or condensate removal equipment per Method 25 or 25C of 40 CFR Part 60, Appendix A and 45CSR16. The sample location on the common header pipe shall be prior to any condensate removal or other gas refining units. The owner or operator shall divide the NMOC concentration from Method 25 or 25C by six to convert from  $C_{\text{NMOC}}$  as carbon to  $C_{\text{NMOC}}$  as hexane.

7.6.b.3. The owner or operator may use another method to determine:

7.6.b.3.A. Landfill gas flow rate if the owner or operator received prior approval for the alternate method by the Administrator; and

7.6.b.3.B. NMOC concentration if the owner or operator received prior approval for the alternate method by the Administrator.

7.6.b.4. The owner or operator shall submit the results from Equation 4 within 60 days after the date of calculating the NMOC emission rate per paragraph 7.9.j.2.

7.6.c. When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator shall estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in 45CSR14 using the Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

7.6.d. For the performance test required by paragraph 7.4.c.2, the owner or operator shall calculate the net heating value of the combusted landfill gas as determined in 40 CFR § 60.18(f)(3) and 45CSR16 from the methane concentration in the landfill gas as measured by Method 3C. The owner or operator shall take a minimum of three 30-minute Method 3C samples, but need not take the measurement of other organic components, hydrogen, and carbon monoxide. The owner or operator may use Method 3C determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR § 60.18(f)(4).

7.6.e. For the performance test required by paragraph 7.4.c.2, the owner or operator shall use Method 25 or 25C (the owner or operator may use Method 25C at the inlet only) of 40 CFR Part 60, Appendix A and 45CSR16 to determine compliance with the 98 weight-percent efficiency or the 20 ppm by volume outlet NMOC concentration level, unless the owner or operator received prior approval by the Administrator for an alternative method per paragraph 7.9.d.2. The owner or operator shall use Method 3, 3A or 3C to determine oxygen for correcting the NMOC concentration as hexane to three percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (eight ppm NMOC as hexane), the owner or operator shall use Method 25A in place of Method 25. The owner or operator may use Method 18 in conjunction with Method 25A on a limited basis (compound specific, e.g., methane) or Method 3C to determine methane. The owner or operator shall subtract methane as carbon from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The owner or

operator shall divide the NMOC concentration as carbon by six to convert the  $C_{\text{NMOC}}$  as carbon to  $C_{\text{NMOC}}$  as hexane. The owner or operator shall use Equation 5 to calculate efficiency:

$$\text{Control Efficiency} = \frac{(NMOC_{in} - NMOC_{out})}{(NMOC_{in})} \quad \text{Equation 5}$$

Where:

$NMOC_{in}$  = Mass of NMOC entering control device.

$NMOC_{out}$  = Mass of NMOC exiting control device.

7.6.f. Within 60 days after the date of completing each performance test according to subdivisions 7.6.d and 7.6.e, the owner or operator shall submit the performance test results required by subdivision 7.6.b or 7.6.d, including any associated fuel analyses per paragraph 7.9.j.1.

#### 7.7. Compliance requirements.

7.7.a. The owner or operator shall use the specified methods in subdivisions 7.7.a.1 through 7.7.a.6, except as provided in paragraph 7.9.d.2, to determine whether the gas collection system is in compliance with paragraph 7.4.b.2.

7.7.a.1. To determine compliance with subparagraph 7.4.b.2.A, the owner or operator shall use either Equation 6 or Equation 7 to calculate the maximum expected gas generation flow rate from the landfill. The owner or operator shall use the methane generation rate constant (k) and methane generation potential ( $L_o$ ) kinetic factors published in the most recent AP-42 or other site specific values the owner or operator has demonstrated to be appropriate and that the Secretary has approved. The owner or operator shall use the value of k determined from the test if k was determined as specified in paragraph 7.6.a.9. The owner or operator shall use a value of no more than 15 years for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

7.7.a.1.A. For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_o R(e^{-kc} - e^{-kt}) \quad \text{Equation 6}$$

Where:

$Q_m$  = Maximum expected gas generation flow rate, cubic meters per year.

$L_o$  = Methane generation potential, cubic meters per megagram solid waste.

R = Average annual acceptance rate, megagrams per year.

k = Methane generation rate constant, year<sup>-1</sup>.

t = Age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years.

c = Time since closure, years (for an active landfill c = 0 and  $e^{-kc} = 1$ ).

7.7.a.1.B. For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \sum_{i=1}^n 2kL_o M_i(e^{-kti}) \quad \text{Equation 7}$$

Where:

$Q_m$  = Maximum expected gas generation flow rate, cubic meters per year.

k = Methane generation rate constant, year<sup>-1</sup>.

$L_o$  = Methane generation potential, cubic meters per megagram solid waste.

$M_i$  = Mass of solid waste in the  $i^{\text{th}}$  section, megagrams.

$t_i$  = Age of the  $i^{\text{th}}$  section, years.

7.7.a.1.C. The owner or operator may use the actual flow data to project the maximum expected gas generation flow rate instead of, or in conjunction with, Equation 6 or Equation 7 if the owner or operator installed a collection and control system. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so the owner or operator shall use calculations using Equation 6 or Equation 7 or other methods to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

7.7.a.2. To demonstrate compliance with subparagraph 7.4.b.2.B determining the sufficient density of gas collectors, the owner or operator shall design a system of vertical wells, horizontal collectors or other collection devices satisfactory to the Secretary that is capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

7.7.a.3. To demonstrate compliance with subparagraph 7.4.b.2.C, the owner or operator shall measure gauge pressure in the gas collection header applied to each individual well monthly to determine whether the gas collection system flow rate is sufficient. If a positive pressure exists, the owner or operator shall initiate action to correct the exceedance within five calendar days, except for the three conditions allowed under subdivision 7.5.b.2 below. The owner or operator shall not cause exceedances of other operational or performance standards by use of any attempted corrective measure.

7.7.a.3.A. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the owner or operator shall conduct a root cause analysis and correct the exceedance as soon as practicable, but not later than 60 days after the first measure of positive pressure. The owner or operator shall keep records per paragraph 7.10.e.3 below.

7.7.a.3.B. If the owner or operator cannot fully implement corrective actions within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator shall conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The owner or operator shall keep records per paragraph 7.10.e.4 below and submit the items required by paragraph 7.9.h.7 in the next annual report.

7.7.a.3.C. If the owner or operator expects corrective action to take longer than 120 days after the initial exceedance to complete, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Secretary according to paragraphs 7.9.h.7 and 7.9.k and keep records according to paragraph 7.10.e.5.

7.7.a.4. To determine whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature according to paragraph 7.5.b.3 above. If a well exceeds the operating parameter for temperature, the owner or operator shall initiate action to correct the exceedance within five calendar days. Attempted corrective measures shall not cause exceedances of other operational or performance standards.

7.7.a.4.A. If the owner or operator cannot achieve a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) within 15 calendar days of the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit), the owner or operator shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator shall maintain records per paragraph 7.10.e.3 below.

7.7.a.4.B. If the owner or operator cannot fully implement corrective actions within 60 days following the measurement for which the root cause analysis was required, the owner or operator shall also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator shall maintain records per paragraph 7.10.e.4 and submit the information listed in paragraph 7.9.h.7 in the next annual report.

7.7.a.4.C. If the owner or operator expects corrective action to take longer than 120 days after the initial exceedance to complete, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Secretary according to paragraph 7.9.h.7 and subdivision 7.9.k and maintain records per paragraph 7.10.e.5.

7.7.a.5. An owner or operator seeking to demonstrate compliance with subparagraph 7.4.b.2.D through the use of a collection system that does not meet the specifications of subdivision 7.5.a shall provide information satisfactory to the Administrator according to paragraph 7.9.d.3 demonstrating that the owner or operator is controlling off-site migration.

7.7.b. To comply with paragraph 7.5.b.1, the owner or operator shall place each well or design component as specified in the approved design plan per subdivision 7.9.d. The owner or operator shall install each well no later than 60 days after the date on which the initial solid waste has been in place for a period of:

7.7.b.1. Five years or more if active; or

7.7.b.2. Two years or more if closed or at final grade.

7.7.c. To comply with the surface methane operational standard of paragraph 7.5.b.4, the owner or operator shall follow the procedures listed below:

7.7.c.1. Monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at no more than 30 meter intervals (or a site-specific established spacing), after installation and startup of the gas collection system, for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector or other portable monitor that meets the specifications in subdivision 7.7.d;

7.7.c.2. Determine the background concentration by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells;

7.7.c.3. Monitor surface emissions during typical meteorological conditions and according to Section 8.3.1 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16, except that the probe inlet shall be placed within five to ten centimeters of the ground;

7.7.c.4. Record any reading of 500 ppm or more above background at any location as a monitored exceedance and take the actions specified below. If the owner or operator takes the below-specified actions, the Secretary shall not consider the exceedance a violation of the operational requirements of paragraph 7.5.b.4. The owner or operator shall:

7.7.c.4.A. Mark the location of each monitored exceedance and record the location and concentration by determining location using the latitude and longitude coordinates found by an instrument with an accuracy of at least four meters and written in decimal degrees with at least five decimal places;

7.7.c.4.B. Perform cover maintenance or adjust the vacuum of the adjacent wells to increase gas collection in the vicinity of each exceedance and re-monitor the location within ten calendar

days of detecting the exceedance;

7.7.c.4.C. Take additional corrective action if the re-monitoring of the location shows a second exceedance and monitor the location again within ten days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, stop monitoring and take the action specified under subparagraph 7.7.c.4.E;

7.7.c.4.D. Re-monitor one month from the initial exceedance any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the ten-day re-monitoring specified above. If the one month re-monitoring shows a concentration less than 500 ppm above background, then the owner or operator is not required to perform further monitoring of that location until the next quarterly monitoring period. If the one-month re-monitoring shows an exceedance, the owner or operator shall take the actions specified under subparagraphs 7.7.c.4.C or 7.7.c.4.E; and

7.7.c.4.E. For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, the owner or operator shall install a new well or other collection device within 120 calendar days of the initial exceedance. The owner or operator may submit to the Secretary for approval an alternative solution to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation.

7.7.c.5. Implement a program to monitor cover integrity on a monthly basis and implement cover repairs as necessary.

7.7.d. The owner or operator shall meet the following instrumentation specifications and procedures for surface emission monitoring devices to comply with the provisions in subdivision 7.7.c or paragraph 7.6.a.11:

7.7.d.1. The portable analyzer shall meet the instrument specifications of Section 6 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16 except that “methane” replaces all references to “VOC”;

7.7.d.2. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air;

7.7.d.3. To meet the performance evaluation requirements in Section 8.1 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16, use the instrument evaluation procedures of Section 8.1 of Method 21; and

7.7.d.4. Follow the calibration procedures in Sections 8 and 10 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16 immediately before starting a surface monitoring survey.

#### 7.8. Monitoring requirements.

7.8.a. To comply with paragraph 7.4.b.2 for an active gas collection system, the owner or operator shall install a sampling port and a thermometer, other temperature measuring device or an access port for temperature measurements at each wellhead and:

7.8.a.1. Measure the gauge pressure in the gas collection header monthly per paragraph 7.7.a.3; and

7.8.a.2. Monitor nitrogen or oxygen concentration in the landfill gas monthly as follows:

7.8.a.2.A. Determine the nitrogen level using Method 3C, unless the owner or operator

establishes an alternative test method as allowed by paragraph 7.9.d.2;

7.8.a.2.B. Determine the oxygen level using an oxygen meter using Method 3A, 3C or ASTM D6522-11 (if sample location is prior to combustion) unless the owner or operator establishes an alternative test method as allowed by paragraph 7.9.d.2, except that:

7.8.a.2.B.1. The span shall be set between ten percent and 12% oxygen;

7.8.a.2.B.2. A data recorder is not required;

7.8.a.2.B.3. Only two calibration gases are required, a zero and span;

7.8.a.2.B.4. A calibration error check is not required; and

7.8.a.2.B.5. The allowable sample bias, zero drift, and calibration drift are plus or minus 10 percent.

7.8.a.2.C. Use a portable gas composition analyzer to monitor the oxygen levels: provided, that:

7.8.a.2.C.1. The analyzer is calibrated; and

7.8.a.2.C.2. The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11.

7.8.a.3. Monitor the temperature of the landfill gas on a monthly basis per paragraph 7.7.a.4, calibrating the temperature measuring device annually using the procedure in Section 10.3 of Method 2 of 40 CFR Part 60, Appendix A-1 and 45CSR16.

7.8.b. If the owner or operator seeks to comply with subdivision 7.4.c using an enclosed combustor, the owner or operator shall calibrate, maintain, and operate the following equipment according to the manufacturer's specifications:

7.8.b.1. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus one percent of the temperature being measured expressed in degrees Celsius or plus or minus 0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts;

7.8.b.2. For a device that records flow to the control device and bypass of the control device (if applicable), the owner or operator shall:

7.8.b.2.A. Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

7.8.b.2.B. Secure the bypass line valve in the closed position with a car-seal or a lock and key type configuration, performing a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and the gas flow is not diverted through the bypass line.

7.8.c. If the owner or operator chooses to comply with subdivision 7.4.c using a non-enclosed flare, the owner or operator shall install, calibrate, maintain, and operate the following equipment according to the manufacturer's specifications:

7.8.c.1. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame;

7.8.c.2. For a device that records flow to the flare and bypass of the flare (if applicable), the owner or operator shall:

7.8.c.2.A. Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

7.8.c.2.B. Secure the bypass line valve in the closed position with a car-seal or a lock and key type configuration, performing a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

7.8.d. If the owner or operator chooses to comply with subdivision 7.4.c using a device other than a non-enclosed flare or an enclosed combustor or a treatment system, the owner or operator shall provide information per paragraph 7.9.d.2 to the Administrator that describes the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it or request that the owner or operator submit additional information. The Administrator may specify additional appropriate monitoring procedures.

7.8.e. If the owner or operator chooses to install a collection system that does not meet the specifications of subdivision 7.5.a or seeks to monitor alternative parameters to those required by subdivisions 7.5.b, 7.6, 7.7, and 7.8, the owner or operator shall provide information satisfactory to the Administrator as provided in paragraphs 7.9.d.2 and 7.9.d.3 describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.

7.8.f. To demonstrate compliance with the 500 ppm surface methane operational standard in paragraph 7.5.b.4, the owner or operator shall monitor surface concentrations of methane according to the requirements of subdivision 7.7.c and the instrument specifications of subdivision 7.7.d. The owner or operator may change to annual monitoring of any closed landfill that does not have monitor exceedances of the operational standard in three consecutive quarterly monitoring periods. If the owner or operator detects any methane reading of 500 ppm or more above background during the annual monitoring, the owner or operator shall resume quarterly monitoring.

7.8.g. To demonstrate compliance with the control system requirements in subdivision 7.4.c using a landfill gas treatment system, the owner or operator shall maintain and operate all monitoring systems associated with the treatment system according to the site-specific treatment system monitoring plan per subparagraph 7.10.b.5.B. The owner or operator shall calibrate, maintain, and operate a device that records flow to the treatment system and bypass of the treatment system, if applicable, according to the manufacturer's specifications by:

7.8.g.1. Installing, calibrating, and maintaining a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and

7.8.g.2. Securing the bypass line valve in the closed position with a car-seal or a lock and key type configuration, performing a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

7.8.h. The monitoring requirements of subdivisions 7.8.b, 7.8.c, 7.8.d, and 7.8.g apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs

associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator is required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

#### 7.9. Reporting requirements.

7.9.a. Design capacity report. -- The owner or operator shall submit the initial design capacity report no later than one year from the effective date of this rule. The initial design capacity report shall contain the following information:

7.9.a.1. A map or plot of the landfill, providing the size and location of the landfill and identifying all areas where solid waste may be landfilled according to the permit; and

7.9.a.2. The maximum design capacity of the landfill. If the permit specifies the maximum design capacity, the owner or operator may submit a copy of the permit specifying the maximum design capacity as part of the report. If the permit does not specify the maximum design capacity of the landfill, the owner or operator shall calculate the maximum design capacity using good engineering practices. The owner or operator shall provide the calculations, along with the relevant parameters, as part of the report. The owner or operator may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate the design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation shall include a site-specific density, which the owner or operator shall recalculate annually. The owner or operator shall document any density conversions and submit them with the design capacity report. The Secretary may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

7.9.b. Amended design capacity report. -- The owner or operator shall submit an amended design capacity report to provide notification of an increase of the landfill maximum design capacity within 90 days of a maximum design capacity that meets or exceeds 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required by subdivision 7.10.f.

7.9.c. NMOC emission rate report. -- For existing MSWLs with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall submit the NMOC emission rate report per paragraph 7.9.j.2 no later than one year from the effective date of this rule. The owner or operator shall submit the NMOC emission rate report to the Secretary annually per paragraph 7.9.j.2, except as provided for in paragraph 7.9.c.3. The Secretary may request additional information as may be necessary to verify the reported NMOC emission rate. The NMOC emission rate report shall:

7.9.c.1. Contain an annual or five-year estimate of the NMOC emission rate calculated using the formula and procedures in subdivisions 7.6.a or 7.6.b, as applicable; and

7.9.c.2. Include all the data, calculations, sample reports, and measurements used to estimate the annual or five year emissions.

7.9.c.3. The owner or operator may follow the requirements in paragraph 7.9.j.2 and submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report if the estimated NMOC emission rate in the annual report is less than 34 megagrams per year in each of five consecutive years. This estimate shall include the current amount of solid waste in place and the

estimated waste acceptance rate for each year of the five years for which an NMOC emission rate is estimated. The owner or operator shall submit to the Secretary all data and calculations upon which it based this estimate. The owner or operator shall revise this estimate at least once every five years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five year estimate, the owner or operator shall submit to the Secretary a revised five-year estimate, which shall cover the five-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

7.9.c.4. The owner or operator is exempt from the requirement to submit an NMOC emission rate report after it installs a collection and control system that complies with subdivisions 7.4.b and 7.4.c during the time the collection and control system is in operation and complies with subdivision 7.5.b and subsection 7.7.

7.9.d. Collection and control system design plan. -- The owner or operator shall prepare the collection and control system design plan, which shall be approved by a professional engineer and shall meet the following requirements:

7.9.d.1. The collection and control system described in the design plan shall meet the design requirements of subdivisions 7.4.b and 7.4.c.;

7.9.d.2. The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of subdivision 7.5.b and subsections 7.6 through 7.10 proposed by the owner or operator;

7.9.d.3. The collection and control system design plan shall either conform to specifications for active collection systems in subdivision 7.5.a or include a demonstration of sufficiency for the alternative provisions to subdivision 7.5.a that is satisfactory to the Administrator;

7.9.d.4. Each owner or operator of a MSWL having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall submit to the Secretary, within one year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, a copy of the collection and control system design plan cover page that contains the professional engineer's seal, except as follows:

7.9.d.4.A. If the owner or operator elects to recalculate the NMOC emission rate after the Tier 2 NMOC sampling and analysis in paragraph 7.6.a.9 and the resulting rate is less than 34 megagrams per year, the owner or operator shall resume annual periodic reporting using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the owner or operator closes the landfill. The owner or operator shall submit, per paragraph 7.9.j.2 and within 180 days of the first calculated exceedance of 34 megagrams per year, the revised NMOC emission rate report with the recalculated NMOC emission rate based on NMOC sampling and analysis.

7.9.d.4.B. If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant  $k$ , for Tier 3 per paragraph 7.6.a.9, and the resulting NMOC emission rate is less than 34 megagrams per year, the owner or operator shall resume annual periodic reporting. The owner or operator shall use the resulting site-specific methane generation rate constant  $k$  in the NMOC emission rate calculation until such time as the emissions rate calculation results in an exceedance. The owner or operator shall submit to the Secretary, per paragraph 7.9.j.2 and within one year of the first calculated NMOC emission rate equaling or exceeding 34 megagrams per year, the revised NMOC emission rate report based on the provisions of paragraph 7.6.a.9 and the resulting site specific methane generation rate constant  $k$ .

7.9.d.4.C. If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 ppm methane, based on the provisions of paragraph 7.6.a.11, then the owner or operator shall annually submit a Tier 4 surface emissions report per paragraph 7.9.j.2 until the report shows a surface emissions reading of 500 ppm methane or greater. If the Tier 4 surface emissions report shows no surface emissions readings of 500 ppm methane or greater for four consecutive quarters at a closed landfill, then the owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The Secretary may request additional information that may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report shall clearly identify the location, date and time (to the nearest second), average wind speeds (including wind gusts), and reading (in ppm) of any value 500 ppm methane or greater, other than nonrepeatable, momentary readings. The owner or operator shall determine the latitude and longitude coordinates using an instrument with an accuracy of at least four meters for location, stating the coordinates in decimal degrees with at least five decimal places. The Tier 4 surface emission report shall also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.

7.9.d.4.C.1. The owner or operator shall submit the initial annual Tier 4 surface emissions report within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site specific surface methane emissions are below 500 ppm methane and following the procedure specified in paragraph 7.9.j.2 below; and

7.9.d.4.C.2. The owner or operator shall submit the Tier 4 surface emissions rate report within one year of the first measured surface exceedance of 500 ppm methane, following the procedure specified in paragraph 7.9.j.2 below.

7.9.d.4.D. If the landfill is in the closed landfill subcategory, the owner or operator shall submit a collection and control system design plan to the Secretary within one year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 50 megagrams per year, except as follows:

7.9.d.4.D.1. If the owner or operator elects to recalculate the NMOC emission rate after the Tier 2 NMOC sampling and analysis under paragraph 7.6.a.7 and the resulting rate is less than 50 megagrams per year, the owner or operator shall resume annual periodic reporting using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 50 megagrams per year or the owner or operator closes the landfill. The owner or operator shall submit the revised NMOC emission rate report, with the recalculated NMOC emission rate based on NMOC sampling and analysis, following the procedure specified in paragraph 7.9.j.2, within 180 days of the first calculated exceedance of 50 megagrams per year.

7.9.d.4.D.2. If the owner or operator elects to recalculate the NMOC emission rate after determining a site specific methane generation rate constant  $k$  for Tier 3 under paragraph 7.6.a.9, and the resulting NMOC emission rate is less than 50 megagrams per year, the owner or operator shall resume annual periodic reporting. The owner or operator shall use the resulting site specific methane generation rate constant  $k$  in the NMOC emission rate calculation until the emissions rate calculation results in an exceedance. The owner or operator shall submit the revised NMOC emission rate report per paragraph 7.6.a.9 and the resulting site-specific methane generation rate constant  $k$ , to the Secretary following the procedure specified in paragraph 7.9.j.2 within one year of the first calculated NMOC emission rate equaling or exceeding 50 megagrams per year.

7.9.d.4.D.3. If the owner or operator elects to demonstrate surface emissions are low, consistent with the provisions in subparagraph 7.9.d.4.C; and

7.9.d.4.D.4. The owner or operator has already submitted a gas collection and control system design plan consistent with the provisions of section 4 or section 6 of this rule.

7.9.d.5. The owner or operator shall notify the Secretary that the design plan is completed and submit a copy of the plan's signature page. The Secretary shall decide within 90 days whether the owner or operator should submit the design plan for review. If the Secretary chooses to review the plan, the approval process continues as described in paragraph 7.9.c.6. However, if the Secretary indicates that submission is not required or does not respond within 90 days, the owner or operator may continue to implement the plan with the recognition that it is proceeding at its own risk. If the Secretary requires the owner or operator to modify the design plan in order to obtain approval, the owner or operator shall take any steps necessary to conform any prior actions to the approved design plan, and the owner's or operator's failure to do so may result in an enforcement action by the Secretary.

7.9.d.6. Upon receipt of an initial or revised design plan, the Secretary shall review the information submitted under paragraphs 7.9.d.1 through 7.9.d.3 and either approve it, disapprove it or request that the owner or operator submit additional information. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems or horizontal trenches only, leachate collection components, and passive systems. If the Secretary does not approve or disapprove the design plan, or does not request that additional information be submitted within 90 days of receipt, then the owner or operator may continue with implementation of the design plan, recognizing that it will be proceeding at its own risk.

7.9.d.7. If the owner or operator chooses to demonstrate compliance with the emission control requirements using a treatment system, then the owner or operator shall prepare a site-specific treatment system monitoring plan as specified in paragraph 7.10.b.5 below.

7.9.e. Revised design plan. -- If the owner or operator is required to submit a design plan under subdivision 7.9.d or sections 4 or 6, the owner or operator shall submit a revised design plan to the Secretary for approval as follows:

7.9.e.1. At least 90 days before expanding operations to an area not covered by the previously approved design plan; or

7.9.e.2. Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan submitted to the Secretary per subdivision 7.9.d.

7.9.f. Closure report. -- The owner or operator shall submit a closure report to the Secretary within 30 days of ceasing waste acceptance. The Secretary may request additional information as may be necessary to verify that permanent closure has taken place per the requirements of 40 CFR § 258.60. If the owner or operator has submitted a closure report to the Secretary, the owner or operator may not place any additional wastes into the landfill without filing a notification of modification as described under 40 CFR § 60.7(a)(4).

7.9.g. Equipment removal report. -- The owner or operator shall submit an equipment removal report to the Secretary 30 days prior to removal or cessation of operation of the control equipment, which report shall contain the following:

7.9.g.1. A copy of the closure report submitted per subdivision 7.9.f. and:

7.9.g.2. A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, unless the performance test results report has been submitted to the EPA via the EPA's CDX or information that demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flows; or, in lieu thereof, a report stating the process unit(s) tested, the pollutant(s) tested, and the date that the performance test was conducted, if the owner or operator previously submitted this report to the EPA's CDX; and

7.9.g.3. Dated copies of three successive NMOC emission rate reports demonstrating the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the owner or operator submitted the NMOC emission rate reports to the EPA via the EPA's CDX; or, in lieu thereof, if the owner or operator has previously submitted the NMOC emission rate reports to the EPA's CDX, a statement that the owner or operator submitted the NMOC emission rate reports electronically, along with the dates that the reports were submitted; or

7.9.g.4. For the closed landfill subcategory, dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year; or, in lieu thereof, a statement that the owner or operator submitted the NMOC emission rate reports electronically to EPA's CDX, along with the dates that the owner or operator electronically submitted the reports.

7.9.g.5. The Secretary may request additional information as may be necessary to verify that the owner or operator has met all of the conditions for removal under subdivision 7.4.f.

7.9.h. Annual report. -- If the owner or operator chooses to comply with paragraph 7.4.e.2 using an active collection system designed per subdivision 7.4.b, the owner or operator shall submit an annual report to the Secretary according to paragraph 7.9.j.2, containing the information listed in paragraphs 7.9.h.1 through 7.9.h.7. The owner or operator shall submit the initial annual report within 180 days of installation and startup of the collection and control system. The initial annual report shall include the initial performance test report required under 40 CFR § 60.8, as applicable, unless the performance test results report has been submitted to the EPA via the EPA's CDX, in which case, the owner or operator may submit, in lieu thereof, a statement that the owner or operator electronically filed the performance test report, the process unit(s) tested, the pollutant(s) tested, and the date that the owner or operator conducted the performance test. The owner or operator shall submit the initial performance test report per paragraph 7.9.j.1 before the date it submits the initial annual report. For enclosed combustion devices and flares, reportable exceedances are defined under paragraph 7.10.c.1. The annual report shall contain:

7.9.h.1. The value and length of time for exceedance of applicable parameters monitored under paragraph 7.8.a.1 and subdivisions 7.8.b, 7.8.c, 7.8.d, and 7.8.g;

7.9.h.2. A description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified in section 7.8;

7.9.h.3. A description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating;

7.9.h.4. All periods when the collection system was not operating;

7.9.h.5. The location of each exceedance of the 500 ppm methane concentration per subdivision 7.5.b.4 and the concentration recorded at each location for which an exceedance was recorded in the previous month, determining the latitude and longitude coordinates using an instrument with an accuracy of at least four meters for the location, which coordinates shall be in decimal degrees with at least five decimal places;

7.9.h.6. The date of installation and the location of each well or collection system expansion added pursuant to 7.7.a.3, 7.7.a.4, 7.7.b, and 7.7.c.4; and

7.9.h.7. For any corrective action analysis for which corrective actions are required by 7.7.a.3 or 7.7.a.4 and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective

action(s) already completed following the positive pressure reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

7.9.i. Initial performance test report. -- To comply with subdivision 7.4.c, the owner or operator shall include the following information with the initial performance test report required under 40 CFR § 60.8 and 45CSR16:

7.9.i.1. A diagram of the collection system showing collection system positioning, including all wells, horizontal collectors, surface collectors or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

7.9.i.2. The data upon which the sufficient density of wells, horizontal collectors, surface collectors or other gas extraction devices and the gas mover equipment sizing are based;

7.9.i.3. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

7.9.i.4. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area;

7.9.i.5. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

7.9.i.6. The provisions for the control of off-site migration.

7.9.j. Electronic reporting. -- The owner or operator shall submit reports electronically according to the following:

7.9.j.1. Within 60 days after the date of completing each performance test (as defined in 40 CFR § 60.8), the owner or operator shall submit the results of each performance test according to the following procedures:

7.9.j.1.A. For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website at the time of the test, the owner or operator shall submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through EPA's Central Data Exchange (CDX). The owner or operator shall submit performance test data in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. If the owner or operator claims that some of the performance test information being submitted is confidential business information (CBI), the owner or operator shall submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The owner or operator shall clearly mark electronic media shall be clearly marked as CBI and mailed to the EPA at the address listed on EPA's ERT website. The owner or operator shall submit the same ERT or alternate file with the CBI omitted to the EPA via the EPA's CDX as described earlier in this subparagraph.

7.9.j.1.B. For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR § 60.4.

7.9.j.2. Each owner or operator required to submit reports following the procedure specified in this paragraph shall submit reports to the EPA via the CEDRI, which can be accessed through the EPA's CDX. The owner or operator shall use the appropriate electronic report in CEDRI for this submission or an alternate electronic file format consistent with the XML schema listed on the CEDRI website. If the specific reporting form is not available in CEDRI at the time that the report is due, the owner or operator shall submit the report to the Administrator at the appropriate address listed in 40 CFR § 60.4. Once the form has been available in CEDRI for 90 calendar days, the owner or operator shall submit all subsequent reports via CEDRI. The owner or operator shall submit the reports by the deadlines specified in section 7, regardless of the method of submittal.

7.9.k. Corrective action and the corresponding timeline. -- The owner or operator shall submit the following:

7.9.k.1. For corrective action that is required by subparagraph 7.7.a.3.C or 7.7.a.4.C and that is expected to take longer to complete than 120 days after the initial exceedance, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Secretary as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above. The Secretary shall approve the plan for corrective action and the corresponding timeline.

7.9.k.2. For corrective action that is required by subparagraph 7.7.a.3.C or 7.7.a.4.C and that is not completed within 60 days after the initial exceedance, the owner or operator shall submit a notification to the Secretary as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

7.9.l. Liquids addition. -- The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last ten years shall annually submit to the Secretary, per paragraph 7.9.j.2, the following information:

7.9.l.1. Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates);

7.9.l.2. Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates);

7.9.l.3. Surface area (acres) over which the leachate is recirculated (or otherwise applied);

7.9.l.4. Surface area (acres) over which any other liquids are applied;

7.9.l.5. The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records, to the extent data are available, or engineering estimates and the reported basis of those estimates; and

7.9.l.6. The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids based on on-site records, to the extent data are available, or engineering estimates.

7.9.l.7. The initial report shall contain items in paragraphs 7.9.l.1 through 7.9.l.6 on an annual basis for the most recent 365 days, as well as for each of the previous ten years, to the extent historical data are available in on-site records, which report shall be submitted no later than:

7.9.1.7.A. September 27, 2017 for landfills that commenced construction, modification or reconstruction after July 17, 2014 but before August 29, 2016; or

7.9.1.7.B. One year (365 days) after the date of commenced construction, modification or reconstruction for landfills that commence construction, modification or reconstruction after August 29, 2016.

7.9.1.8. Subsequent annual reports shall contain items in 7.9.1.1 through 7.9.1.6 for the annual (365 days) period following the period included in the previous annual report (365 days), which report shall be submitted no later than 365 days after the date the previous report was submitted.

7.9.1.9. Landfills in the closed landfill subcategory are exempt from the reporting requirements contained in paragraphs 7.9.1.1 through 7.9.1.7.

7.9.1.10. The owner or operator may cease annual reporting of items in paragraphs 7.9.1.1 through 7.9.1.6 after the owner or operator has submitted the closure report per subdivision 7.9.f.

#### 7.9.m. Tier 4 notification.

7.9.m.1. The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall provide a notification of the date(s) the owner or operator intends to demonstrate site specific surface methane emissions are below 500 ppm methane, based on the Tier 4 provisions of paragraph 7.6.a.11. The owner or operator shall also include a description in the notification of the wind barrier to be used during the surface emission monitoring. Notification shall be postmarked not less than 30 days prior to the Tier 4 surface emission monitor date.

7.9.m.2. If there is a delay to the scheduled Tier 4 surface emission monitor date due to weather conditions, including not meeting the wind requirements of part 7.6.a.11.E.1, the owner or operator shall notify the Secretary by email or telephone no later than 48 hours before any known delay in the original test date and arrange with the Secretary a mutually agreeable new test date.

#### 7.10. Recordkeeping requirements.

7.10.a. Except as provided in paragraph 7.9.d.2, each owner or operator of an MSWL subject to the provisions of subdivision 7.4.e shall keep on-site records of the design capacity report that triggered subdivision 7.4.f, the current amount of solid waste in place, and the year-by-year waste acceptance rate for at least five years up-to-date, readily accessible. The owner or operator may maintain off-site records if they are retrievable within four hours. Either paper copy or electronic formats are acceptable.

7.10.b. Except as provided in paragraph 7.9.d.2, the owner or operator shall keep up-to-date, readily accessible records of the data listed in paragraphs 7.10.b.1 through 7.10.b.5 below, as measured during the initial performance test or compliance determination, for the life of the control system equipment. The owner or operator shall maintain records of subsequent tests or monitoring for a minimum of five years and records of the control device vendor specifications the control device is removed.

7.10.b.1. To demonstrate compliance with the collection system requirements of subdivision 7.4.b, the owner or operator shall keep a record of:

7.10.b.1.A. The maximum expected gas generation flow rate as calculated in paragraph 7.7.a.1. If the Administrator approved another method to determine the maximum gas generation flow rate, the owner or operator may use the other method; and

7.10.b.1.B. The density of wells, horizontal collectors, surface collectors or other gas

extraction devices determined per subparagraph 7.5.a.1.A.

7.10.b.2. To demonstrate compliance with the control system requirements of subdivision 7.4.c through the use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts, the owner or operator shall keep a record of:

7.10.b.2.A. The average temperature measured at least every 15 minutes and averaged over the same time period of the performance test; and

7.10.b.2.B. The percent reduction of NMOC achieved by the control device determined per paragraph 7.4.c.2.

7.10.b.3. To demonstrate compliance with paragraph 7.4.c.1 through the use of a non-enclosed flare, the owner or operator shall keep a record of the flare type (i.e., steam assisted, air-assisted or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test, as specified in 40 CFR § 60.18, as well as continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent.

7.10.b.4. To demonstrate compliance with subparagraph 7.4.c.2.A through the use of a boiler or process heater of any size the owner or operator shall keep a record including a description of the location where the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

7.10.b.5. To demonstrate compliance with paragraph 7.4.c.3 through the use of a landfill gas treatment system the owner or operator shall keep:

7.10.b.5.A. Bypass records. -- Records of the flow of landfill gas to, and bypass of, the treatment system; and

7.10.b.5.B. A site specific treatment monitoring plan, to include:

7.10.b.5.B.1. Monitoring records of parameters identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, the owner or operator shall include records of filtration, dewatering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas;

7.10.b.5.B.2. Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas;

7.10.b.5.B.3. Documentation of the monitoring methods and ranges, along with justification for their use;

7.10.b.5.B.4. Identification of who is responsible (by job title) for data collection;

7.10.b.5.B.5. Documentation of processes and methods used to collect the necessary data; and

7.10.b.5.B.6. Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

7.10.c. Except as provided in paragraph 7.9.d.2, the owner or operator shall keep for five years

up-to-date, readily accessible, continuous records of the equipment operating parameters required by section 7.8, as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

7.10.c.1. The following constitute exceedances that the owner or operator shall record and report under section 7.9:

7.10.c.1.A. For enclosed combustors, except for boilers and process heaters with design heat input capacity greater than 44 megawatts (150 million British thermal unit per hour), all three-hour periods of operation that the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature that the owner or operator determined compliance with subdivision 7.4.c during the most recent performance test; and

7.10.c.1.B. For boilers or process heaters, whenever there is a change in the location where the vent stream is introduced into the flame zone per paragraph 7.10.b.3.

7.10.c.2. The owner or operator shall keep up-to-date, readily accessible, continuous records of the indication of flow to the control system and the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, per section 7.8.

7.10.c.3. If the owner or operator uses a boiler or process heater with a design heat input capacity greater than 44 megawatts to comply with subdivision 7.4.c, the owner or operator shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater (e.g. records of steam use, fuel use or monitoring data collected pursuant to other State, local, tribal or federal regulatory requirements).

7.10.c.4. Each owner or operator seeking to comply with the provisions of section 7 by use of a non-enclosed flare shall keep up-to-date, readily accessible, continuous records of the flame or flare pilot flame monitoring required by subdivision 7.8.c, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

7.10.c.5. Each owner or operator seeking to comply with subdivision 7.4.e using an active collection system designed per subdivision 7.4.b, shall keep records of periods when the collection system or control device is not operating.

7.10.d. The owner or operator shall keep an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label on each collector that matches the labeling on the plot map for the life of the collection system, except as provided in paragraph 7.9.d.2. below. The owner or operator shall keep:

7.10.d.1. Up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under subdivision 7.7.b.; and

7.10.d.2. Readily accessible documentation of the nature, date of deposition, amount, and location of asbestos containing or nondegradable waste excluded from collection under part 7.5.a.1.C.1 and any nonproductive areas excluded from collection under part 7.5.a.1.C.2.

7.10.e. The owner or operator shall keep up-to-date, readily accessible records of the following, except as provided in paragraph 7.9.d.2, for a minimum of five years:

7.10.e.1. All collection and control system exceedances of the operational standards in subdivision 7.5.b, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance;

7.10.e.2. Each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20%, and each wellhead oxygen level at or above five percent;

7.10.e.3. The root cause analysis conducted, including a description of the recommended corrective action(s) taken and the date(s) the corrective action(s) were completed, for which corrective actions are required by paragraphs 7.7.a.3 or 7.7.a.4;

7.10.e.4. The root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, for which corrective actions are required by subparagraphs 7.7.a.3.B or 7.7.a.4.B; and

7.10.e.5. The root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the Secretary for any root cause analysis for which corrective actions are required by subparagraphs 7.7.a.3.C or 7.7.4.C.

7.10.f. Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that the landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters shall keep readily accessible, on-site records of the annual recalculation of site specific density, design capacity, and the supporting documentation. The owner or operator may maintain records off site if they are retrievable within four hours. Either paper copy or electronic formats are acceptable.

7.10.g. To demonstrate that site-specific surface methane emissions are below 500 ppm by conducting surface emission monitoring under the Tier 4 procedures specified in paragraph 7.6.a.11, the owner or operator shall keep for a minimum of five years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted per Sections 8 and 10 of 40 CFR Part 60, Appendix A and 45CSR16 including all of the following items:

7.10.g.1. Calibration records:

7.10.g.1.A. Date of calibration and initials of operator performing the calibration;

7.10.g.1.B. Calibration gas cylinder identification, certification date, and certified concentration;

7.10.g.1.C. Instrument scale(s) used;

7.10.g.1.D. A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value; and

7.10.g.1.E. If the owner or operator makes its own calibration gas, a description of the procedure used.

7.10.g.2. Digital photographs of the instrument setup. -- For the duration of the Tier 4 monitoring demonstration, the owner or operator shall take time and date stamped digital photographs prior to sampling at the first sampling location and at the last sampling location after sampling at the end of each sampling day;

7.10.g.3. Time stamp of each surface scan reading:

7.10.g.3.A. The time stamp should be detailed to the nearest second, based on when the sample collection begins; and

7.10.g.3.B. A log for the length of time each sample was taken using a stopwatch (e.g., the time the probe was held over the area).

7.10.g.4. Location of each surface scan reading. – The owner or operator shall determine the coordinates using an instrument with an accuracy of at least four meters, which coordinates shall be in decimal degrees with at least five decimal places;

7.10.g.5. Monitored methane concentration (ppm) of each reading;

7.10.g.6. Background methane concentration (ppm) after each instrument calibration test;

7.10.g.7. Adjusted methane concentration using most recent calibration (ppm);

7.10.g.8. For readings taken at each surface penetration, the unique identification location label matching the label specified in subdivision 7.10.d; and

7.10.g.9. Records of the operating hours of the gas collection system for each destruction device.

7.10.h. The owner or operator shall keep up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in paragraphs 7.8.a.1, 7.8.a.2, and 7.8.a.3 for a minimum of five years, except as provided in paragraph 7.9.d.2.

7.10.i. The owner or operator may maintain in electronic format any documents required to be maintained by section 7 that it submitted electronically via EPA's CDX.

7.10.j. If the owner or operator reports leachate or other liquids addition under subdivision 7.9.1, the owner or operator shall keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where the owner or operator applied leachate or liquids.

#### **§45-23-8. Secretary.**

8.1. All references in 40 CFR Part 60 Subparts Cf and XXX to the "Administrator" are amended to be the "Secretary" except in the following references, which shall remain "Administrator":

8.1.a. Where the Federal Regulations specifically provide that the Administrator shall retain authority and not transfer such authority to the Secretary;

8.1.b. Where provisions occur which refer to:

8.1.b.1. Alternate means of emission limitations;

8.1.b.2. Alternate control technologies;

8.1.b.3. Innovative technology waivers;

8.1.b.4. Alternate test methods;

**45CSR23**

8.1.b.5. Alternate monitoring methods;

8.1.b.6. Waivers/adjustments to recordkeeping and reporting;

8.1.b.7. Applicability determinations; or

8.1.b.8. The requirements of 40 CFR § 60.764(a)(5) to approve other methods to determine the NMOC concentration or a site specific methane generation rate constant as an alternative to the methods required by 40 CFR § 60.764(a)(3) and (4); and

8.1.c. Where the context of the regulation clearly requires otherwise.

**§45-23-9. Inconsistency Between Rules.**

9.1. In the event of any inconsistency between this rule and any other rule of the Division of Air Quality, the inconsistency shall be resolved by the determination of the Secretary, and the determination shall be based upon the application of the more stringent provision, term, condition, method or rule.

[this page intentionally left blank]

**APPENDIX B**  
**PUBLIC PARTICIPATION**

[this page intentionally left blank]



---

west virginia department of environmental protection

---

Division of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

Austin Caperton, Cabinet Secretary  
dep.wv.gov

July 17, 2018

Ms. Cristina Fernandez, Director  
Air Protection Division  
U.S. EPA, Region 3  
1650 Arch Street (3AP00)  
Philadelphia, PA 19103-2029

Re: West Virginia Revised CAA § 111(d) Plan for Municipal Solid Waste (MSW) Landfills

Dear Ms. Fernandez:

I am herein submitting the above-referenced proposed revision to the West Virginia § 111(d) Plan for review and comment by the U. S. Environmental Protection Agency (EPA). West Virginia state rule 45 C.S.R. 23, *Control of Air Pollution from Municipal Solid Waste Landfills*, effective June 1, 2018, was revised in response to final rules published by the EPA on August 29, 2016 titled "*Standards of Performance for Municipal Solid Waste Landfills*" and "*Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*".

The public comment period commences on July 20, 2018. The WV Department of Environmental Protection, Division of Air Quality will accept written comments on the proposed state plan revision until August 20, 2018. In addition, the agency will receive oral and written comments at a public hearing to be held on August 20, 2018 at 5:30 p.m. as detailed in the notice.

Please submit any written comments to my attention at the above address, or feel free to call me with any questions regarding this matter at (304) 926-0462.

Sincerely,

A handwritten signature in blue ink, appearing to read "William F. Durham", is written over a white background.

William F. Durham  
Director

WFD/lmj  
Enclosures

cc: Rich Boehm, DAQ  
Mike Gordon, USEPA/3AP10  
Laura Jennings, DAQ

**Proposed Revision to the West Virginia Section 111(d) State Plan  
Control of Air Pollution from Municipal Solid Waste Landfills**

**Notice of Public Hearing and Public Comment Period**

The West Virginia Department of Environmental Protection (DEP), Division of Air Quality (DAQ) is revising the Clean Air Act § 111(d) State Plan for the Control of Air Pollution from Municipal Solid Waste (MSW) Landfills. This plan revision incorporates changes made to rule 45 C.S.R. 23 - "Control of Air Pollution from Municipal Solid Waste Landfills". This rule change requires DAQ to submit a State Plan revision for MSW landfills and conduct a public hearing.

DAQ will hold a public hearing on Monday, August 20, 2018 beginning at 5:30 p.m. on a proposed revised State Plan to implement Emission Guidelines for MSW landfills.

The public hearing is being held to satisfy the requirements for submitting a revised § 111(d) State Plan. The revised plan will be submitted to the United States Environmental Protection Agency (USEPA) and supplemented by legislative rule 45 C.S.R. 23 - "Control of Air Pollution from Municipal Solid Waste Landfills," which became effective June 1, 2018. This rule gives West Virginia regulatory authority to adopt, implement and enforce the Emission Guidelines requirements for existing MSW landfills and the New Source Performance Standards for new facilities, either directly through administrative action requiring compliance with 45 C.S.R. 23, or by including such requirements in State permits, where applicable.

The public hearing will be held in the Dolly Sods conference room #1125, at the DEP Charleston headquarters located at 601 57<sup>th</sup> Street SE, Charleston, West Virginia 25304. Written and oral comments will be accepted until the close of the hearing on August 20, 2018. Comments will also be accepted by e-mail if transmitted by 5:30 p.m. on August 20, 2018 to [richard.a.boehm@wv.gov](mailto:richard.a.boehm@wv.gov). Written comments may also be submitted at the following address:

William F. Durham, Director  
Division of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

Comments submitted by mail must be postmarked by August 20, 2018. Copies of the proposed revised State Plan will be available for public review on or before August 20, 2018, at the Department of Environmental Protection, Division of Air Quality's Charleston office at the above address, or on the website at <http://www.dep.wv.gov/daq/publicnoticeandcomment/Pages/default.aspx>. Appendices to the Plan will be available upon request.

# **APPENDIX C**

## **W. Va. State Code**

[this page intentionally left blank]

**W. Va. Code § 22-5-1 et seq.**

[this page intentionally left blank]

## CHAPTER 22. ENVIRONMENTAL RESOURCES.

## ARTICLE 5. AIR POLLUTION CONTROL.

**§22-5-1. Declaration of policy and purpose.**

It is hereby declared to be the public policy of this state and the purpose of this article to achieve and maintain such levels of air quality as will protect human health and safety, and to the greatest degree practicable, prevent injury to plant and animal life and property, foster the comfort and convenience of the people, promote the economic and social development of this state and facilitate the enjoyment of the natural attractions of this state.

To these ends it is the purpose of this article to provide for a coordinated statewide program of air pollution prevention, abatement and control; to facilitate cooperation across jurisdictional lines in dealing with problems of air pollution not confined within single jurisdictions; to assure the economic competitiveness of the state by providing for the timely processing of permit applications and other authorizations under this article; and to provide a framework within which all values may be balanced in the public interest.

Further, it is the public policy of this state to fulfill its primary responsibility for assuring air quality pursuant to the Federal Clean Air Act, as amended.

**§22-5-2. Definitions.**

The terms used in this article are defined as follows:

(1) "Air pollutants" means solids, liquids or gases which, if discharged into the air, may result in a statutory air pollution.

(2) "Board" means the air quality board continued pursuant to the provisions of article two, chapter twenty-two-b of this code.

(3) "Director" means the director of the Division of Environmental Protection or such other person to whom the director has delegated authority or duties pursuant to sections six or eight, article one, chapter twenty-two of this code.

(4) "Discharge" means any release, escape or emission of air pollutants into the air.

(5) "Person" means any and all persons, natural or artificial, including the State of West Virginia or any other state, the United States of America, any municipal, statutory, public or private corporation organized or existing under the laws of this or any other state or country, and any firm, partnership or association of whatever nature.

(6) "Statutory air pollution" means and is limited to the discharge into the air by the act of man of substances (liquid, solid, gaseous, organic or inorganic) in a locality, manner and amount as to be injurious to human health or welfare, animal or plant life, or property, or which would interfere with the enjoyment of life or property.

**§22-5-3. Causing statutory pollution unlawful; article not to provide persons with additional legal remedies.**

It is unlawful for any person to cause a statutory air pollution, to violate the provisions of this article, to violate any rules promulgated pursuant to this article to operate any facility subject to the permit requirements of the director without a valid permit, or to knowingly misrepresent to any person in the State of West Virginia that the sale of air pollution control equipment will meet the standards of this article or any rules promulgated pursuant to this article. Nothing contained in this article provides any person with a legal remedy or basis for damages or other relief not otherwise available to such person immediately prior to enactment of this article.

**§22-5-4. Powers and duties of director; and legal services; rules.**

(a) The director is authorized:

(1) To develop ways and means for the regulation and control of pollution of the air of the state;

(2) To advise, consult and cooperate with other agencies of the state, political subdivisions of the state, other states, agencies of the federal government, industries, and with affected groups in furtherance of the declared purposes of this article;

(3) To encourage and conduct such studies and research relating to air pollution and its control and abatement as the director may deem advisable and necessary;

(4) To promulgate legislative rules in accordance with the provisions of chapter twenty-nine-a of this code not inconsistent with the provisions of this article, relating to the control of air pollution: *Provided*, That no rule of the director shall specify a particular manufacturer of equipment nor a single specific type of construction nor a particular method of compliance except as specifically required by the "Federal Clean Air Act," as amended, nor shall any such rule apply to any aspect of an employer-employee relationship: *Provided, however*, That no legislative rule or program of the director hereafter adopted shall be any more stringent than any federal rule or program except to the limited extent that the director first makes a specific written finding for any such departure that there exists scientifically supportable evidence for such rule or program reflecting factors unique to West Virginia or some area thereof;

(5) To enter orders requiring compliance with the provisions of this article and the rules lawfully promulgated hereunder;

(6) To consider complaints, subpoena witnesses, administer oaths, make investigations and hold hearings relevant to the promulgation of rules and the entry of compliance orders hereunder;

(7) To encourage voluntary cooperation by municipalities, counties, industries and others in preserving the purity of the air within the state;

(8) To employ personnel, including specialists and consultants, purchase materials and supplies, and enter into contracts necessary, incident or convenient to the accomplishment of the purpose of this article;

(9) To enter and inspect any property, premise or place on or at which a source of air pollutants is located or is being constructed, installed or established at any reasonable time for the purpose of ascertaining the state of compliance with this article and rules promulgated under the provisions of this article. No person shall refuse entry or access to any authorized representative of the director who requests entry for purposes of inspection, and who presents appropriate credentials; nor shall any person obstruct, hamper or interfere with any such inspection: *Provided*, That nothing contained in this article eliminates any obligation to follow any process that may be required by law;

(10) Upon reasonable evidence of a violation of this article, which presents an imminent and serious hazard to public health, to give notice to the public or to that portion of the public which is in danger by any and all appropriate means;

(11) To cooperate with, receive and expend money from the federal government and other sources; and the director may cooperate with any public or private agency or person and receive therefrom and on behalf of the state gifts, donations, and contributions, which shall be deposited to the credit of the "Air Pollution Education and Environment Fund" which is hereby continued in the state Treasury. The moneys collected pursuant to this article which are directed to be deposited in the air pollution education and environment fund must be deposited in a separate account in the state Treasury and expenditures for purposes set forth in this article are not authorized from collection but are to be made only in accordance with appropriation and in accordance with the provisions of article three, chapter twelve of this code and upon fulfillment of the provisions set forth in article two, chapter five-a of this code. Amounts collected which are found from time to time to exceed the funds

needed for the purposes set forth in this article may be transferred to other accounts or funds and redesignated for other purposes by appropriation of the Legislature;

(12) To represent the state in any and all matters pertaining to plans, procedures and negotiations for interstate compacts in relation to the control of air pollution;

(13) To appoint advisory councils from such areas of the state as he or she may determine. The members shall possess some knowledge and interest in matters pertaining to the regulation, control and abatement of air pollution. The council may advise and consult with the director about all matters pertaining to the regulation, control and abatement of air pollution within such area;

(14) To require any and all persons who are directly or indirectly discharging air pollutants into the air to file with the director such information as the director may require in a form or manner prescribed by him or her for such purpose, including, but not limited to, location, size and height of discharge outlets, processes employed, fuels used and the nature and time periods of duration of discharges. Such information shall be filed with the director, when and in such reasonable time, and in such manner as the director may prescribe;

(15) To require the owner or operator of any stationary source discharging air pollutants to install such monitoring equipment or devices as the director may prescribe and to submit periodic reports on the nature and amount of such discharges to the director;

(16) To do all things necessary and convenient to prepare and submit a plan or plans for the implementation, maintenance and enforcement of the "Federal Clean Air Act," as amended: *Provided*, That in preparing and submitting each such plan the director shall establish in such plan that such standard shall be first achieved, maintained and enforced by limiting and controlling emissions of pollutants from commercial and industrial sources and locations and shall only provide in such plans for limiting and controlling emissions of pollutants from private dwellings and the curtilage thereof as a last resort: *Provided, however*, That nothing herein contained affects plans for achievement, maintenance and enforcement of motor vehicle emission standards and of standards for fuels used in dwellings;

(17) To promulgate legislative rules, in accordance with the provisions of chapter twenty-nine-a of this code, providing for the following:

(A) Procedures and requirements for permit applications, transfers and modifications and the review thereof;

(B) Imposition of permit application and transfer fees;

(C) Establishment of criteria for construction, modification, relocation and operating permits;

(D) Imposition of permit fees and of certificate fees: *Provided*, That any person subject to operating permit fees pursuant to section twelve of this article is exempt from imposition of the certificate fee; and

(E) Imposition of penalties and interest for the nonpayment of fees.

The fees, penalties and interest shall be deposited in a special account in the state Treasury designated the "Air Pollution Control Fund", formerly the "Air Pollution Control Commission Fund", which is hereby continued to be appropriated for the sole purpose of paying salaries and expenses of the board, the office of air quality and their employees to carry out the provisions of this article: *Provided*, That the fees, penalties and interest collected for operating permits required by section twelve of this article shall be expended solely to cover all reasonable direct and indirect costs required to administer the operating permit program. The fees collected pursuant to this subdivision must be deposited in a separate account in the state Treasury and expenditures for purposes set forth in this article are not authorized from collections but are to be made only in

accordance with appropriation and in accordance with the provisions of article three, chapter twelve of this code and upon fulfillment of the provisions set forth in article two, chapter five-a of this code. Amounts collected which are found from time to time to exceed the funds needed for the purposes set forth in this article may be transferred to other accounts or funds and redesignated for other purposes by appropriation of the Legislature: *Provided, however,* That for fiscal year one thousand nine hundred ninety-three, expenditures are permitted from collections without appropriation by the Legislature; and

(18) Receipt of any money by the director as a result of the entry of any consent order shall be deposited in the state Treasury to the credit of the air pollution education and environment fund.

(b) The Attorney General and his or her assistants and the prosecuting attorneys of the several counties shall render to the director without additional compensation such legal services as the director may require of them to enforce the provisions of this article.

**§22-5-5. Issuance of cease and desist orders by director; service; permit suspension, modification and revocation appeals to board.**

If, from any investigation made by the director or from any complaint filed with him or her, the director is of the opinion that a person is violating the provisions of this article, or any rules promulgated pursuant thereto, he or she shall make and enter an order directing the person to cease and desist the activity, unless the director determines the violation is of a minor nature or the violation has been abated. The director shall fix a reasonable time in such order by which the activity must stop or be prevented. The order shall contain the findings of fact upon which the director determined to make and enter the order.

If, after any investigation made by the director, or from any complaint filed with him or her, the director is of the opinion that a permit holder is violating the provisions of this article, or any rules promulgated pursuant thereto, or any order of the director, or any provision of a permit, the director may issue notice of intent to suspend, modify or revoke and reissue such permit. Upon notice of the director's intent to suspend, modify or revoke a permit, the permit holder may request a conference with the director to show cause why the permit should not be suspended, modified or revoked. The request for conference must be received by the director within fifteen days following receipt of notice. After conference or fifteen days after issuance of notice of intent, if no conference is requested, the director may enter an order suspending, modifying or revoking the permit and send notice to the permit holder. Such order is a cease and desist order for purposes of administrative and judicial review and shall contain findings of fact upon which the director determined to make and enter the order. If an appeal of the director's order is filed, the order of the director shall be stayed from the date of issuance pending a final decision of the board.

The director shall cause a copy of any such order to be served upon the person by registered or certified mail or by any proper law-enforcement officer.

Any person upon whom a copy of the final order has been served may appeal such order to the air quality board pursuant to the provisions of article one, chapter twenty-two-b of this code.

**§22-5-6. Penalties; recovery and disposition; duties of prosecuting attorneys.**

(a) Any person who violates any provision of this article, any permit or any rule or order issued pursuant to this article or article one, chapter twenty-two-b of this code is subject to a civil penalty not to exceed \$10,000 for each day of such violation, which penalty shall be recovered in a civil action brought by the director in the name of the State of West Virginia in the circuit court of any county wherein the person resides or is engaged in the activity complained of or in the circuit court of Kanawha County. The amount of the penalty shall be fixed by the court without a jury: *Provided,* That any person is not subject

to civil penalties unless the person has been given written notice thereof by the director: *Provided, however,* That for the first such minor violation, if the person corrects the violation within the time as was specified in the notice of violation issued by the director, no civil penalty may be recovered: *Provided further,* That if the person fails to correct a minor violation or for any serious or subsequent serious or minor violation, the person is subject to civil penalties imposed pursuant to this section from the first day of the violation notwithstanding the date of the issuance or receipt of the notice of violation. The director shall, by rule subject to the provisions of chapter twenty-nine-a of this code, determine the definitions of serious and minor violations. The amount of any penalty collected by the director shall be deposited in the general revenue of the state Treasury according to law.

(b)(1) Any person who knowingly misrepresents any material fact in an application, record, report, plan or other document filed or required to be maintained under the provisions of this article or any rules promulgated under this article is guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than \$25,000 or imprisoned in the county jail not more than six months or both fined and imprisoned: *Provided,* That if the violation occurs on separate days or is continuing in nature, the fine shall be no more than \$25,000 for each day of such violation.

(2) Any person who knowingly violates any provision of this article, any permit or any rule or order issued pursuant to this article or article one, chapter twenty-two-b of this code is guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than \$25,000 for each day of such violation or imprisoned in the county jail not more than one year or both fined and imprisoned.

(c) Upon a request in writing from the director it is the duty of the Attorney General and the prosecuting attorney of the county in which any such action for penalties accruing under this section or section seven of this article may be brought to institute and prosecute all such actions on behalf of the director.

(d) For the purpose of this section, violations on separate days are separate offenses.

#### **§22-5-7. Applications for injunctive relief.**

The director may seek an injunction against any person in violation of any provision of this article or any permit, rule or order issued pursuant to this article or article one, chapter twenty-two-b of this code. In seeking an injunction, it is not necessary for the director to post bond nor to allege or prove at any stage of the proceeding that irreparable damage will occur if the injunction is not issued or that the remedy at law is inadequate. An application for injunctive relief brought under this section or for civil penalty brought under section six of this article may be filed and relief granted notwithstanding the fact that all administrative remedies provided in this article have not been exhausted or invoked against the person or persons against whom such relief is sought.

In any action brought pursuant to the provisions of section six or of this section, the state, or any agency of the state which prevails, may be awarded costs and reasonable attorney's fees.

#### **§22-5-8. Emergencies.**

Whenever air pollution conditions in any area of the state become such as, in the opinion of the director, to create an emergency and to require immediate action for the protection of the public health, the director may, with the written approval of the Governor, so find and enter such order as it deems necessary to reduce or prevent the emission of air pollutants substantially contributing to such conditions. In any such order the director shall also fix a time, not later than twenty-four hours thereafter, and place for a hearing to be held before it for the purpose of investigating and determining the factors causing or

contributing to such conditions. A true copy of any such order shall be served upon persons whose interests are directly prejudiced thereby in the same manner as a summons in a civil action may be served, and a true copy of such order shall also be posted on the front door of the courthouse of the county in which the alleged conditions originated. All persons whose interests are prejudiced or affected in any manner by any such order shall have the right to appear in person or by counsel at the hearing and to present evidence relevant to the subject of the hearing. Within twenty-four hours after completion of the hearing the director shall affirm, modify or set aside said order in accordance and consistent with the evidence adduced. Any person aggrieved by such action of the director may thereafter apply by petition to the circuit court of the county for a review of the director's action. The circuit court shall forthwith fix a time for hearing de novo upon the petition and shall, after such hearing, by order entered of record, affirm, modify or set aside, in whole or in part, the order and action of the director. Any person whose interests shall have been substantially affected by the final order of the circuit court may appeal the same to the Supreme Court of Appeals in the manner prescribed by law.

**§22-5-9. Powers reserved to secretary of the Department of Health and Human Resources, Commissioner of Bureau for Public Health, local health boards and political subdivisions; conflicting statutes repealed.**

Nothing in this article affects or limits the powers or duties heretofore conferred by the provisions of chapter sixteen of this code upon the the Secretary of the Department of Health and Human Resources, the Commissioner of the Bureau for Public Health, county health boards, county health officers, municipal health boards, municipal health officers, combined boards of health or any other health agency or political subdivision of this state except insofar as such powers and duties might otherwise apply to the control, reduction or abatement of air pollution. All existing statutes or parts of statutes are, to the extent of their inconsistencies with the provisions of this article and to the extent that they might otherwise apply to the control, reduction or abatement of air pollution, hereby repealed: *Provided*, That no ordinance previously adopted by any municipality relating to the control, reduction or abatement of air pollution is repealed by this article.

**§22-5-10. Records, reports, data or information; confidentiality; proceedings upon request to inspect or copy.**

(a) All air quality data, emission data, permits, compliance schedules, orders of the director, board orders and any other information required by a federal implementation program (all for convenience hereinafter referred to in this section as "records, reports, data or information") obtained under this article shall be available to the public, except that upon a showing satisfactory to the director, by any person, that records, reports, data or information or any particular part thereof, to which the director has access under this article if made public, would divulge methods or processes entitled to protection as trade secrets of the person, the director shall consider these records, reports, data or information or a particular portion thereof confidential: *Provided*, That this confidentiality does not apply to the types and amounts of air pollutants discharged and that these records, reports, data or information may be disclosed to other officers, employees or authorized representatives of the state or of the federal environmental protection agency concerned with enforcing this article, the federal Clean Air Act, as amended, or the federal Resource Conservation and Recovery Act, as amended, when relevant to any official proceedings thereunder: *Provided, however*, That the officers, employees or authorized representatives of the state or federal environmental protection agency protect these records, reports, data or information to the same degree required of the director by this section. The director shall promulgate legislative rules regarding the protection of records, reports, data or information, or trade secrets, as required by this section.

(b) Upon receipt of a request for records, reports, data or information which constitute trade secrets and prior to making a final determination to grant or deny the request, the director shall notify the person claiming that any record, report, data or information is entitled to protection as a trade secret, and allow the person an opportunity to respond to the request in writing.

(c) All requests to inspect or copy documents must state with reasonable specificity the documents or type of documents sought to be inspected or copied. Within five business days of the receipt of a request, the director or his or her designate shall by order: (1) Advise the person making the request of the time and place at which the person may inspect and copy the documents, which, if the request addresses information claimed as confidential, may not be sooner than thirty days following the date of the determination to disclose, unless an earlier disclosure date is agreed to by the person claiming the confidentiality; or (2) deny the request, stating in writing the reasons for denial. If the request addresses information claimed as confidential, notice of the action taken pursuant to this subsection shall also be provided to the person asserting the claim of confidentiality.

Any person adversely affected by a determination, by order or otherwise, regarding information confidentiality under this article may appeal the determination to the air quality board pursuant to the provisions of article one, chapter twenty-two-b of this code. The filing of a timely notice of appeal shall stay any determination, by order or otherwise, to disclose confidential information pending a final decision on the appeal. The scope of review is limited to the question of whether the records, reports, data or other information, or any particular part thereof sought to be inspected or copied, are entitled to be treated as confidential under subsection (a) of this section. The air quality board shall afford evidentiary protection in appeals as is necessary to protect the confidentiality of the information at issue, including the use of in camera proceedings and the sealing of records where appropriate.

(d) In lieu of the provision of chapter twenty-nine-b of this code, the provision of this section shall apply to determinations of confidentiality.

**§22-5-11. Construction, modification or relocation permits required for stationary sources of air pollutants.**

(a) Unless otherwise specifically provided in this article, no person shall construct, modify or relocate any stationary source of air pollutants without first obtaining a construction, modification or relocation permit as provided in this article.

(b) The secretary shall by rule specify the class or categories of stationary sources to which this section applies. Application for permits shall be made upon such form, in such manner, and within such time as the rule prescribes and shall include such information, as in the judgment of the secretary, will enable him or her to determine whether such source will be so designed as to operate in conformance with the provisions of this article or any rules of the secretary.

(c) Unless otherwise specifically provided in this article, the secretary shall issue a permit for a major stationary source within a reasonable time not to exceed three hundred sixty-five calendar days, after the secretary determines that the application is complete.

(d) Unless otherwise specifically provided in this article, the secretary shall issue a permit for all other sources including modifications of existing major stationary sources which are not major modifications within a reasonable time not to exceed ninety calendar days, after the date the secretary determines the application is complete. The Secretary may extend this time by thirty calendar days to allow for public comment.

(e) A permit application will be denied if the secretary determines that the proposed construction, modification or relocation will not be in accordance with this article or rules promulgated thereunder.

(f) For purposes of this section, a modification is any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant discharged by a source above the de minimis level set by the secretary.

(g) With respect to the construction of new nonmajor stationary sources, or modifications of nonmajor stationary sources, or modifications which are not major modifications to existing major stationary sources, or relocations of nonmajor stationary sources, the following requirements apply:

(1) The secretary shall issue an administrative update to a permit issued under this section with respect to any of these sources, unless he or she determines that the proposed administrative update will not be in accordance with this article or rules promulgated hereunder, in which case the secretary shall issue an order denying the administrative update. Any administrative update shall be issued by the secretary within a reasonable time not to exceed sixty calendar days after receipt of a complete application. Administrative updates are minor revisions of existing permits as further described and authorized by rule.

(2) The secretary shall, within a reasonable time not to exceed forty-five calendar days after the date the secretary determines that an application is complete, issue a registration under a general permit applicable to any of these sources, unless he or she determines that the proposed construction, modification or relocation will not be in accordance with this article or rules promulgated hereunder. General permits are permits authorizing the construction, modification or relocation of a category of sources by the same owner or operator or involving the same or similar processes or pollutants upon the terms and conditions specified in the general permit for those types of sources.

(3) The secretary shall, within a reasonable time not to exceed forty-five calendar days after receipt of a complete application, issue a temporary permit or a relocation permit, unless he or she determines that the proposed construction, modification or relocation will not be in accordance with this article or rules promulgated hereunder. Temporary permits are permits authorizing the owner or operator to make limited changes for limited periods of time as further described and authorized by rule.

(h) The secretary shall determine whether an application filed under this section is complete within thirty calendar days after receipt of that application at which time the secretary shall notify the applicant in writing as to whether the application is complete or specify any additional information required for the application to be complete.

(i) The secretary, shall propose rules for legislative approval in accordance with the provisions of article three, chapter twenty nine-a of this code, to implement the provisions of this section by August 1, 2008.

#### **§22-5-11a. Activities authorized in advance of permit issuance.**

(a) With respect to the modifications of nonmajor stationary sources, or modifications which are not major modifications to existing major stationary sources, the following activities are authorized in advance of permit issuance. Any authorized activities undertaken by or on behalf of the permit applicant prior to the issuance of a final permitting action by the secretary are undertaken at the permit applicant's own risk and with the knowledge that the application for a permit or permit modification may be denied:

(1) Receiving or storing on-site or off-site any equipment or supplies which make up in part or in whole an emission unit or any support equipment, facilities, building or structure.

(2) A person who holds an active West Virginia air quality permit issued under this article at an existing source, and who has applied to the secretary for permission to alter, expand or modify that source or to allow a new emissions unit at that source, may begin the construction of any such alteration, expansion, modification or new emission unit in advance of permit issuance in accordance with this section. The person may not operate any altered, expanded, modified or new emission unit without first obtaining an air quality permit as required by rules promulgated by the secretary.

(3) The following sources are ineligible for submission of an application for permission to commence construction in advance of permit issuance:

(A) Sources subject to the "Federal Clean Air Act" subsections 112(g) or 112(j).

(B) Sources seeking federally enforceable permit conditions in order to avoid otherwise applicable standards;

(C) Sources requiring a specific case-by-case emission limitation or standard under 45CSR21 or 45CSR27.

(4)(A) To qualify for the authorization to construct in advance of permit issuance as provided in this section, the permittee shall submit to the secretary an application for permission to commence construction in advance of permit issuance.

(B) Such application for permission to commence construction shall include all of the following:

(1) The name and location of the source and the name and address of the permittee;

(2) The permit number of each active permit issued under this article for such source;

(3) The nature of the sources and equipment associated with such alteration, expansion, modification or new emission unit;

(4) An estimate of the maximum hourly and annual emissions of regulated air pollutants increased as a result of such alteration, expansion, modification or new emission unit;

(5) The air pollution control devices or methods that are to be employed in connection with the alteration, expansion, modification or new emission unit;

(6) A listing of the applicable state and federal air quality regulatory requirements for alteration, expansion, modification or new emission unit, and sufficient information which, in the judgement of the secretary, will demonstrate compliance with any applicable state and federal air quality regulatory requirements;

(7) The anticipated construction or building schedule for alteration, expansion, modification or new emission unit;

(8) A certification signed by the responsible official that the source, equipment and devices that are subject to a request for construction authorization will not be operated until the permittee has obtained a permit under rules promulgated by the secretary;

(9) A certification by the responsible official that any construction undertaken prior to the issuance of a final permit under rules of the secretary is undertaken at the permittee's own risk and with the knowledge that the permittee may be denied a permit or permit modification without regard to the permittee's financial investment or addition to or modification of the source;

(10) A certification signed by the responsible official that all of the information contained in the application is complete and accurate to the best of the responsible official's knowledge and ability; and

(11) Upon submission of the application for permission to construct, the applicant shall give notice by publishing a Class I legal advertisement of the applicant's intent to alter or expand the physical arrangement or operation of an existing stationary source and the opportunity to provide written comment to the secretary within thirty calendar days of the publication. The applicant shall post a visible and accessible sign, at a minimum 2 feet square, at the entrance to the source or proposed

site. The sign must be clearly marked indicating that an air quality permit has been applied for and include the West Virginia Division of Air Quality permitting section telephone number and web site for additional information. The applicant must post the sign for the duration of the public notice period. Public notice shall be in a newspaper having general circulation in the county or counties where the facility is located. The notice shall contain the information required by rules promulgated by the secretary. Within fifteen days of completion of the public comment period, the secretary shall consider and respond to all written comments. If the secretary finds that concerns raised by the public comment period give rise to issues or concerns that would cause a construction or operational permit not to be issued, the secretary may issue a revocation or stay of the authorization to construct until those issues or concerns are resolved.

(c) The secretary shall determine whether an application for permission to commence construction in advance of permit issuance is complete within fifteen calendar days after receipt of the application at which time the secretary shall notify the applicant in writing as to whether the application is complete or specify any additional information required for the application to be complete.

(d) Within fifteen calendar days after the secretary has made a determination that an application for permission to commence construction in advance of permit issuance is complete, unless the secretary for good cause shown, extends the fifteen day time period for up to an additional fifteen calendar days, the secretary shall notify the applicant in writing of his or her determination as to whether each of the following conditions has or has not been satisfied:

(1) The applicant is and has been for a period of at least three years in substantial compliance with all other active permits and applicable state and federal air quality regulatory requirements under this article;

(2) The applicant has demonstrated that the alteration, expansion, modification or new emission unit will be in compliance with all applicable state and federal air quality regulatory requirements;

(3) The alteration, expansion, modification or new emission unit will not interfere with attainment or maintenance of an applicable ambient air quality standard, cause or contribute to a violation of an applicable air quality increment or be inconsistent with the intent and purpose of this article;

(4) The facility will be altered or expanded so that it will be used for either the same or a similar use as the use already permitted;

(5) The alteration or expansion will not result in a disproportionate increase in size of the facility already permitted; and

(6) The alteration or expansion will result in the same or substantially similar emissions as the facility already permitted.

If the secretary finds that all of the conditions have been satisfied, the notice issued by the secretary shall state that construction of the alteration, expansion, modification or new emission unit in advance of permit issuance may begin immediately. If the secretary finds that one or more of the conditions has not been met, the notice shall state that the requested construction, alteration, expansion, modification or new emission unit may not begin prior to issuance of a new or modified permit.

(e) If at any time during the construction of such alteration, expansion, modification or new emission unit, the secretary determines that the source is not likely to qualify for a permit or permit modification under applicable rules, the secretary may order that construction cease until the secretary makes a decision on the application for a permit or permit modification. If the secretary orders that construction cease, then construction of the alteration, expansion, modification or new emission unit may resume only if the secretary either makes a subsequent written determination that the circumstances that resulted in such

order have been adequately addressed or if the secretary issues a permit or permit modification under the rules that authorize construction to resume.

(f) The secretary shall evaluate an application for a permit or permit modification under the rules and make a decision on the same basis as if the construction of the alteration, expansion, modification or new emission unit in advance of permit issuance had not been authorized pursuant to this section. No evidence regarding any contract entered into, financial investment made, construction undertaken, or economic loss incurred by any person or permittee who proceeds under this section without first obtaining a permit under this article is admissible in any contested case or judicial proceeding involving any permit required under the rules. No evidence as to any determination or order by the secretary pursuant to this section shall be admissible in any contested case or judicial proceeding related to any permit required under this article.

(g) Any permittee who proceeds under this section shall be precluded from bringing any action, suit or proceeding against the state, the officials, agents, and employees of the state or the secretary for any loss resulting from any contract entered into, financial investment made, construction undertaken, or economic loss incurred by the permittee in reliance upon the provisions of this section.

(h) This section does not relieve any person of the obligation to comply with any other requirement of state law, including any requirement to obtain any other permit or approval prior to undertaking any activity associated with preparation of the site or the alteration or expansion of the physical arrangement or method of operation of a source at a facility for which a permit is required under the rules.

(i) This section does not relieve any person from any preconstruction or construction prohibition imposed by any federal requirement, federal delegation, federally approved requirement in any state implementation plan, or federally approved requirement under the Title V permitting program, as determined solely by the secretary. This section does not apply to any construction, alteration, or expansion that is subject to requirements for prevention of significant deterioration or federal nonattainment new source review, as determined solely by the secretary. This section does not apply if it is inconsistent with any federal requirement, federal delegation, federally approved requirement in any state implementation plan, or federally approved requirement under the Title V permitting program, as determined solely by the secretary.

(j) A permittee who submits an application to commence construction in advance of permit issuance under this section shall pay to the department a fee of \$200 for each application submitted to cover a portion of the administrative costs of implementing this section.

(k) The secretary, in accordance with chapter twenty-nine-a of this code, shall propose legislative rule that may be necessary to implement the provisions of this section by August 1, 2008.

(l) The secretary is directed to report back to the Joint Committee on Government and Finance by January 1, 2010, on the impact of the implementation of the expedited permits authorized pursuant to this section. The report shall include, but not be limited to, assessments regarding the number and types of facilities utilizing this section, whether the agency has found this expedited process has assisted these facilities to implement construction and make revisions to their operations efficiently, without adverse impacts on the agency, the permitting process, or statewide air quality.

#### **§22-5-12. Operating permits required for stationary sources of air pollution.**

No person may operate a stationary source of air pollutants without first obtaining an operating permit as provided in this section. The director shall promulgate legislative rules, in accordance with chapter twenty-nine-a of this code, which

specify classes or categories of stationary sources which are required to obtain an operating permit. The legislative rule shall provide for the form and content of the application procedure including time limitations for obtaining the required permits. Any person who has filed a timely and complete application for a permit or renewal thereof required by this section, and who is abiding by the requirements of this article and the rules promulgated pursuant thereto is in compliance with the requirements of this article and any rule promulgated thereunder until a permit is issued or denied. Any legislative rule promulgated pursuant to the authority granted by this section shall be equivalent to and consistent with rules and regulations adopted by the administrator of United States environmental protection agency pursuant to Title IV and Title V of the Clean Air Act Amendments of 1990, 42 U.S.C. §7651*et seq.* and 42 U.S.C. §7661 *et seq.*, respectively: *Provided*, That such legislative rule may deviate from the federal rules and regulations where a deviation is appropriate to implement the policy and purpose of this article taking into account such factors unique to West Virginia.

#### **§22-5-13. Consolidation of permits.**

For permits required by sections eleven and twelve of this article, the director may incorporate the required permits with an existing permit or consolidate the required permits into a single permit.

#### **§22-5-14. Administrative review of permit actions.**

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the secretary, or construction authorization pursuant to section eleven-a of this article, may appeal such action of the secretary to the air quality board pursuant to article one, chapter twenty-two-b of this code.

#### **§22-5-15. Motor vehicle pollution, inspection and maintenance.**

(a) As the state of knowledge and technology relating to the control of emissions from motor vehicles may permit or make appropriate and in furtherance of the purposes of this article, the director may provide by legislative rule for the control of emissions from motor vehicles. The legislative rule may prescribe requirements for the installation and use of equipment designed to reduce or eliminate emissions and for the proper maintenance of such equipment and of vehicles. Any legislative rule pursuant to this section shall be consistent with provisions of federal law, if any, relating to control of emissions from the vehicles concerned. The director shall not require, as a condition precedent to the initial sale of a vehicle or vehicular equipment, the inspection, certification or other approval of any feature or equipment designed for the control of emissions from motor vehicles, if such feature or equipment has been certified, approved or otherwise authorized pursuant to federal law.

(b) Except as permitted or authorized by law or legislative rule, no person shall fail to maintain in good working order or remove, dismantle or otherwise cause to be inoperative any equipment or feature constituting an operational element of the air pollution control system or mechanism of a motor vehicle required by rules of the director to be maintained in or on the vehicle. Any such failure to maintain in good working order or removal, dismantling or causing of inoperability subjects the owner or operator to suspension or cancellation of the registration for the vehicle by the Department of Transportation, Division of Motor Vehicles. The vehicle is not thereafter eligible for registration until all parts and equipment constituting operational elements of the motor vehicle have been restored, replaced or repaired and are in good working order.

(c) The Department of Transportation, Division of Motor Vehicles, Department of Administration, information and communication services division and the State Police shall make available technical information and records to the director to implement the legislative rule regarding motor vehicle pollution, inspection and maintenance. The director may promulgate a

legislative rule establishing motor vehicle pollution, inspection and maintenance standards and imposing an inspection fee at a rate sufficient to implement the motor vehicle inspection program and shall do so when required pursuant to federal law regarding attainment of ambient air quality standards.

(d) The director may promulgate a legislative rule requiring maintenance of features of equipment in or on motor vehicles for the purpose of controlling emissions therefrom and shall do so when required pursuant to federal law regarding attainment of ambient air quality standards, and no motor vehicle may be issued a Division of Motor Vehicles registration certificate, or the existing registration certificate shall be revoked, unless the motor vehicle has been found to be in compliance with the director's legislative rule.

(e) The remedies and penalties provided in this section and section one, article three, chapter seventeen-a of this code, apply to violations hereof and the provisions of sections six or seven of this article do not apply thereto.

(f) As used in this section "motor vehicle" has the same meaning as in chapter seventeen-c of this code.

**§22-5-16. Small business environmental compliance assistance program, compliance advisory panel.**

The secretary of the Department of Commerce, labor, and environmental resources shall establish a small business stationary source technical and environmental compliance assistance program which meets the requirements of Title V of the Clean Air Act Amendments of 1990, 42 U.S.C. §7661 et seq. A compliance advisory panel composed of seven members appointed as follows shall be created to periodically review the effectiveness and results of this assistance program:

(a) Two members who are not owners, nor representatives of owners, of small business stationary sources, selected by the Governor to represent the general public;

(b) One member selected by the Speaker of the House of Delegates who is an owner or who represents owners of small business stationary sources;

(c) One member selected by the minority leader of the House of Delegates who is an owner or who represents owners of small business stationary sources;

(d) One member selected by the President of the Senate who is an owner or who represents owners of small business stationary sources;

(e) One member selected by the minority leader of the Senate who is an owner or who represents owners of small business stationary sources; and

(f) One member selected by the director to represent the director.

**§22-5-17. Interstate ozone transport.**

(a) This section of the Air Pollution Control Act may be referred to as the Interstate Ozone Transport Oversight Act.

(b) The Legislature hereby finds that:

(1) The federal Clean Air Act, as amended, contains a comprehensive regulatory scheme for the control of emissions from mobile and stationary sources, which will improve ambient air quality and health and welfare in all parts of the nation.

(2) The number of areas unable to meet national ambient air quality standards for ozone has been declining steadily and will continue to decline with air quality improvements resulting from implementation of the federal Clean Air Act amendments of 1990, and the mobile and stationary source emission controls specified therein.

(3) Scientific research on the transport of atmospheric ozone across state boundaries is proceeding under the auspices of the United States environmental protection agency (U.S. EPA), state agencies, and private entities, which research will lead

to improved scientific understanding of the causes and nature of ozone transport, and emission control strategies potentially applicable thereto.

(4) The northeast ozone transport commission established by the federal Clean Air Act Amendments of 1990 has proposed emission control requirements for stationary and mobile sources in certain northeastern states and the District of Columbia in addition to those specified by the federal Clean Air Act amendments of 1990.

(5) Membership of the northeast ozone transport commission includes, by statute, representatives of state environmental agencies and Governors' offices; similar representation is required in the case of other ozone transport commissions established by the Administrator of the United States environmental protection agency pursuant to Section 176A of the federal Clean Air Act, as amended.

(6) The northeast ozone transport commission neither sought nor obtained state Legislative Oversight or approval prior to reaching its decisions on mobile and stationary source requirements for states included within the northeast ozone transport region.

(7) The Commonwealth of Virginia and other parties have challenged the Constitutionality of the northeast ozone transport commission and its regulatory proposals under the guarantee, compact, and joinder clauses of the United States Constitution.

(8) The United States environmental protection agency, acting outside of the aforementioned statutory requirements for the establishment of new interstate transport commissions, is encouraging the State of West Virginia and twenty-four other states outside of the northeast to participate in multistate negotiations through the ozone transport assessment group; such negotiations are intended to provide the basis for an interstate memorandum of understanding or other agreement on ozone transport requiring reductions of emissions of nitrogen oxides or volatile organic compounds in addition to those specified by the federal Clean Air Act amendments of 1990, membership of the ozone transport assessment group consists of state and federal air quality officials, without state legislative representation or participation by the Governor.

(9) Emission control requirements exceeding those specified by federal law can adversely affect state economic development, competitiveness, employment, and income without corresponding environmental benefits; in the case of electric utility emissions of nitrogen oxides, it is estimated that control costs in addition to those specified by the federal Clean Air Act could exceed \$5 billion annually in a thirty-seven state region of the eastern United States, including the State of West Virginia.

(10) Requiring certain eastern states to meet emission control requirements more stringent than those otherwise applicable to other states and unnecessary for environmental protection would unfairly affect interstate competition for new industrial development and employment opportunities.

(c) It is therefore directed that:

(1) Not later than ten days subsequent to the receipt by the director of the Division of Environmental Protection of any proposed memorandum of understanding or other agreement by the ozone transport assessment group, or similar group, potentially requiring the State of West Virginia to undertake emission reductions in addition to those specified by the federal Clean Air Act, the director of the Division of Environmental Protection shall submit such proposed memorandum or other agreement to the President of the Senate and the Speaker of the House of Delegates for consideration.

(2) Upon receipt of the aforesaid memorandum of understanding or agreement, the President and the Speaker shall refer the understanding or agreement to one or more appropriate legislative committees with a request that such committees convene one or more public hearings to receive comments from agencies of government and other interested parties on its

prospective economic and environmental impacts on the State of West Virginia and its citizens, including impacts on energy use, taxes, economic development, utility costs and rates, competitiveness and employment.

(3) Upon completion of the public hearings required by the preceding subdivision, the committees(s) shall forward to the president and the speaker a report containing its findings and recommendations concerning any proposed memorandum of understanding or other agreement related to the interstate transport of ozone. The report shall make findings with respect to the economic, health, safety and welfare and environmental impacts on the State of West Virginia and its citizens, including impacts on energy use, taxes, economic development, utility costs and rates, competitiveness and employment.

(4) Upon receipt of the report required by the preceding subdivision, the president and speaker shall thereafter transmit the report to the Governor for such further consideration or action as may be warranted.

(5) Nothing in this section shall be construed to preclude the Legislature from taking such other action with respect to any proposed memorandum of understanding or other agreement related to the interstate transport of ozone as it deems appropriate.

(6) No person is authorized to commit the State of West Virginia to the terms of any such memorandum or agreement unless specifically approved by an act of the Legislature.

**§22-5-18. Market-based banking and trading programs, emissions credits; director to promulgate rules.**

(a) The director shall propose legislative rules for promulgation in accordance with article three, chapter twenty-nine-a of this code, to the full extent allowed by federal and state law, one or more rules establishing a voluntary emissions trading and banking program that provides incentives to make progress toward the attainment or maintenance of the national ambient air quality standards, the reduction or prevention of hazardous air contaminants or the protection of human health and welfare and the environment from air pollution.

(b) The director shall establish a system by legislative rule for quantifying, verifying, determining eligibility, registering, trading and using all emissions reduction credits, for banking and trading if achieved after January 1, 1991, to the extent permitted by federal law. Credits also shall be available for permanent shutdowns. Ten percent of any emission reduction credits registered with the director shall be retired from future use: *Provided*, That fifty percent of any emission reduction credits generated from permanent shutdowns prior to the effective date of the legislative rule or rules promulgated pursuant to this section shall be retired from future use. All other emissions reduction credits registered shall remain in effect until used and debited or retired. Credits not used within ten years shall be retired from future use. The director may charge a reasonable transaction fee at the time any credits are registered and shall deposit the fees in the air pollution control fund.

The division may establish the emissions trading program as a state, multistate or regional program as long as the program contributes to the goal of improving the air quality in West Virginia and in the air quality region where the source is located.

**§22-5-19. Inventory of greenhouse gases.**

(a) The secretary shall establish a program to inventory greenhouse gas emissions from major sources that are subject to mandatory federal greenhouse gases reporting requirements. The secretary shall obtain available emissions data directly from the appropriate federal entity, including the United States Environmental Protection Agency.

(b) As used in this section, "greenhouse gas" means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.

**§22-5-20. Development of a state plan relating to carbon dioxide emissions from existing fossil fuel-fired electric generating units.**

*(a) Legislative findings. —*

(1) The United States Environmental Protection Agency has proposed a federal rule pursuant to Section 111(d) of the Clean Air Act, 42 U. S. C. §7411(d), to regulate carbon dioxide emissions from electric generating units.

(2) The rule is expected to go into effect on or about June 30, 2015, and will require each state to submit a state plan pursuant to Section 111(d) that sets forth laws, policies and regulations that will be enacted by the state to meet the federal guidelines in the rule.

(3) The creation of this state plan necessitates establishment and creation of law affecting the economy and energy policy of this state.

(4) The Environmental Protection Agency has stated that any state plan it ultimately approves shall become enforceable federal law upon that state.

(5) The state disputes the jurisdiction and purported binding nature asserted by the Environmental Protection Agency through this rule, and reserves to itself those rights and responsibilities properly reserved to the State of West Virginia.

(6) Given the economic impact and potentially legally binding nature of the submission of a state plan, there is a compelling state interest to require appropriate legislative review and passage of law prior to submission, if any, of a state plan pursuant to Section 111(d) of the Clean Air Act.

*(b) Submission of a state plan. —* Absent specific legislative enactment granting such powers or rule-making authority, the Department of Environmental Protection or any other agency or officer of state government is not authorized to submit to the Environmental Protection Agency a state plan under this section, or otherwise pursuant to Section 111(d) of the Clean Air Act:*Provided*, That the Department of Environmental Protection, in consultation with the Department of Environmental Protection Advisory Council and other necessary and appropriate agencies and entities, may develop a proposed state plan in accordance with this section.

*(c) Development of a Proposed State Plan. —* (1) The Department of Environmental Protection shall, no later than one hundred eighty days after a rule is finalized by the Environmental Protection Agency that requires the state to submit a state plan under Section 111(d) of the Clean Air Act, 42 U. S. C. § 7411(d), submit to the Legislature a report regarding the feasibility of the state's compliance with the Section 111(d) rule. The report must include a comprehensive analysis of the effect of the Section 111(d) rule on the state, including, but not limited to, the need for legislative or other changes to state law, and the factors referenced in subsection (g) of this section. The report must make at least two feasibility determinations: (i) Whether the creation of a state plan is feasible based on the comprehensive analysis; and (ii) whether the creation of a state plan is feasible before the deadline to submit a state plan to Environmental Protection Agency under the Section 111(d) rule, assuming no extensions of time are granted by Environmental Protection Agency. If the department determines that a state plan is or is not feasible under clause (i) of this subsection, the report must explain why. If the department determines that a state plan is not feasible under clause (ii) of this subsection, it shall explain how long it requires to create a state plan and then endeavor to submit such a state plan to the Legislature as soon as practicable. Such state plan may be on a unit-specific performance basis and may be based upon either a rate-based model or a mass-based model.

(2) If the department determines that the creation of a state plan is feasible, it shall develop and submit the proposed state plan to the Legislature sitting in regular session, or in an extraordinary session convened for the purpose of consideration

of the state plan, in sufficient time to allow for the consideration of the state plan prior to the deadline for submission to the Environmental Protection Agency.

(3) In addition to submitting the proposed state plan to the Legislature, the department shall publish the report and any proposed state plan on its website.

(d) If the department proposes a state plan to the Legislature in accordance with subsection (c) of this section, the department shall propose separate standards of performance for carbon dioxide emissions from existing coal-fired electric generating units in accordance with subsection (e) of this section and from existing natural gas-fired electric generating units in accordance with subsection (f) of this section. The standards of performance developed and proposed under any state plan to comply with Section 111 of the Clean Air Act should allow for greater flexibility and take into consideration the additional factors set forth in subsection (g) of this section as a part of any state plan to achieve targeted reductions in greenhouse gas emissions which are equivalent or comparable to the goals and marks established by federal guidelines.

(e) *Standards of performance for existing coal-fired electric generating units.* — Except as provided under subsection (g) of this section, the standard of performance proposed for existing coal-fired electric generating units under subsection (c) of this section may be based upon:

(1) The best system of emission reduction which, taking into account the cost of achieving the reduction and any nonair quality health and environmental impact and energy requirements, has been adequately demonstrated for coal-fired electric generating units that are subject to the standard of performance;

(2) Reductions in emissions of carbon dioxide that can reasonably be achieved through measures undertaken at each coal-fired electric generating unit; and

(3) Efficiency and other measures that can be undertaken at each coal-fired electric generating unit to reduce carbon dioxide emissions from the unit without switching from coal to other fuels or limiting the economic utilization of the unit.

(f) *Standards of performance for existing natural gas-fired electric generating units.* — Except as provided in subsection (g) of this section, the standard of performance proposed for existing gas-fired electric generating units under subsection (c) of this section may be based upon:

(1) The best system of emission reduction which, taking into account the cost of achieving the reduction and any nonair quality health and environmental impact and energy requirements, has been adequately demonstrated for natural gas-fired electric generating units that are subject to the standard of performance;

(2) Reductions in emissions of carbon dioxide that can reasonably be achieved through measures at each natural gas-fired electric generating unit; and

(3) Efficiency and other measures that can be undertaken at the unit to reduce carbon dioxide emissions from the unit without switching from natural gas to other lower-carbon fuels or limiting the economic utilization of the unit.

(g) Flexibility in establishing standards of performance. — In developing a flexible state plan to achieve targeted reductions in greenhouse gas emissions, the department shall endeavor to establish an achievable standard of performance for any existing fossil fuel-fired electric generating unit, and examine whether less stringent performance standards or longer compliance schedules may be implemented or adopted for existing fossil fuel-fired electric generating units in comparison to the performance standards established for new, modified or reconstructed generating units, based on the following:

(1) Consumer impacts, including any disproportionate impacts of energy price increases on lower income populations;

(2) Nonair quality health and environmental impacts;

- (3) Projected energy requirements;
- (4) Market-based considerations in achieving performance standards;
- (5) The costs of achieving emission reductions due to factors such as plant age, location or basic process design;
- (6) Physical difficulties with or any apparent inability to feasibly implement certain emission reduction measures;
- (7) The absolute cost of applying the performance standard to the unit;
- (8) The expected remaining useful life of the unit;

(9) The impacts of closing the unit, including economic consequences such as expected job losses at the unit and throughout the state in fossil fuel production areas including areas of coal production and natural gas production and the associated losses to the economy of those areas and the state, if the unit is unable to comply with the performance standard;

(10) Impacts on the reliability of the system; and

(11) Any other factors specific to the unit that make application of a modified or less stringent standard or a longer compliance schedule more reasonable.

(h) *Legislative consideration of proposed state plan under Section 111(d) of the Clean Air Act.* — (1) If the department submits a proposed state plan to the Legislature under this section, the Legislature may by act, including presentment to the Governor: (i) Authorize the department to submit the proposed state plan to the Environmental Protection Agency; (ii) authorize the department to submit the state plan with amendment; or (iii) not grant such rulemaking or other authority to the department for submission and implementation of the state plan.

(2) If the Legislature fails to enact or approve all or part of the proposed state plan, the department may propose a new or modified state plan to the Legislature in accordance with the requirements of this section.

(3) If the Environmental Protection Agency does not approve the state plan, in whole or in part, the department shall as soon as practicable propose a modified state plan to the Legislature in accordance with the requirements of this section.

(i) *Legal effect.* — Any obligation created by this section and any state plan submitted to the Environmental Protection Act pursuant to this section shall have no legal effect if:

(1) The Environmental Protection Agency fails to issue, or withdraws, its federal rules or guidelines for reducing carbon dioxide emissions from existing fossil fuel-fired electrical generating units under 42 U. S. C. §7411(d); or,

(2) A court of competent jurisdiction invalidates the Environmental Protection Agency's federal rules or guidelines issued to regulate emissions of carbon dioxide from existing fossil fuel-fired electrical generating units under 42 U. S. C. §7411(d).

(j) *Effective date.* — All provisions of this section are effective immediately upon passage.

**W. Va. Code § 29B-1-1 et seq.**

[this page intentionally left blank]

## CHAPTER 29B. FREEDOM OF INFORMATION.

## ARTICLE 1. PUBLIC RECORDS.

**§29B-1-1. Declaration of policy.**

Pursuant to the fundamental philosophy of the American Constitutional form of representative government which holds to the principle that government is the servant of the people, and not the master of them, it is hereby declared to be the public policy of the State of West Virginia that all persons are, unless otherwise expressly provided by law, entitled to full and complete information regarding the affairs of government and the official acts of those who represent them as public officials and employees. The people, in delegating authority, do not give their public servants the right to decide what is good for the people to know and what is not good for them to know. The people insist on remaining informed so that they may retain control over the instruments of government they have created. To that end, the provisions of this article shall be liberally construed with the view of carrying out the above declaration of public policy.

**§29B-1-2. Definitions.**

As used in this article:

(1) "Custodian" means the elected or appointed official charged with administering a public body.

(2) "Law-enforcement officer" shall have the same definition as this term is defined in W.Va. Code §30-29-1: *Provided*, That for purposes of this article, "law-enforcement officer" shall additionally include those individuals defined as "chief executive" in W.Va. Code §30-29-1.

(3) "Person" includes any natural person, corporation, partnership, firm or association.

(4) "Public body" means every state officer, agency, department, including the executive, legislative and judicial departments, division, bureau, board and commission; every county and city governing body, school district, special district, municipal corporation, and any board, department, commission council or agency thereof; and any other body which is created by state or local authority or which is primarily funded by the state or local authority.

(5) "Public record" includes any writing containing information prepared or received by a public body, the content or context of which, judged either by content or context, relates to the conduct of the public's business.

(6) "Writing" includes any books, papers, maps, photographs, cards, tapes, recordings or other documentary materials regardless of physical form or characteristics.

**§29B-1-3. Inspection and copying of public record; requests of Freedom of Information Act requests registry.**

(a) Every person has a right to inspect or copy any public record of a public body in this state, except as otherwise expressly provided by section four of this article.

(b) A request to inspect or copy any public record of a public body shall be made directly to the custodian of such public record.

(c) The custodian of any public records, unless otherwise expressly provided by statute, shall furnish proper and reasonable opportunities for inspection and examination of the records in his or her office and reasonable facilities for making memoranda or abstracts therefrom, during the usual business hours, to all persons having occasion to make examination of them. The custodian of the records may make reasonable rules and regulations necessary for the protection of the records and to prevent interference with the regular discharge of his or her duties. If the records requested exist in

magnetic, electronic or computer form, the custodian of the records shall make copies available on magnetic or electronic media, if so requested.

(d) All requests for information must state with reasonable specificity the information sought. The custodian, upon demand for records made under this statute, shall as soon as is practicable but within a maximum of five days not including Saturdays, Sundays or legal holidays:

(1) Furnish copies of the requested information;

(2) Advise the person making the request of the time and place at which he or she may inspect and copy the materials; or

(3) Deny the request stating in writing the reasons for such denial. A denial shall indicate that the responsibility of the custodian of any public records or public body to produce the requested records or documents is at an end, and shall afford the person requesting them the opportunity to institute proceedings for injunctive or declaratory relief in the circuit court in the county where the public record is kept.

(e) The public body may establish fees reasonably calculated to reimburse it for its actual cost in making reproductions of records. A public body may not charge a search or retrieval fee or otherwise seek reimbursement based on a man-hour basis as part of costs associated with making reproduction of records.

(f) The Secretary of State shall maintain an electronic data base of notices of requests as required by section three-a of this article. The database shall be made available to the public via the Internet and shall list each freedom of information request received and the outcome of the request. The Secretary of State shall provide on the website a form for use by a public body to report the results of the freedom of information request, providing the nature of the request and the public body's response thereto, whether the request was granted, and if not, the exemption asserted under section four of this article to deny the request.

#### **§29B-1-3a. Reports to Secretary of State by public bodies.**

(a) Beginning January 1, 2016, each public body that is in receipt of a freedom of information request shall provide information to the Secretary of State relating to, at a minimum, the nature of the request, the nature of the public body's response, the time-frame that was necessary to comply in full with the request; and the amount of reimbursement charged to the requester for the freedom of information request: *Provided*, That the public body shall not provide to the Secretary of State the public records that were the subject of the FOIA request.

(b) Pursuant to article three, chapter twenty-nine-a of this code, the Secretary of State shall propose rules and emergency rules for legislative approval relating to the creation and maintenance of a publically accessible database available on the Secretary of State's website; the establishment of forms and procedures for submission of information to the Secretary of State by the public body; and for other procedures and policies consistent with this section.

#### **§29B-1-4. Exemptions.**

(a) There is a presumption of public accessibility to all public records, subject only to the following categories of information which are specifically exempt from disclosure under the provisions of this article:

(1) Trade secrets, as used in this section, which may include, but are not limited to, any formula, plan pattern, process, tool, mechanism, compound, procedure, production data or compilation of information which is not patented which

is known only to certain individuals within a commercial concern who are using it to fabricate, produce or compound an article or trade or a service or to locate minerals or other substances, having commercial value, and which gives its users an opportunity to obtain business advantage over competitors;

(2) Information of a personal nature such as that kept in a personal, medical or similar file, if the public disclosure of the information would constitute an unreasonable invasion of privacy, unless the public interest by clear and convincing evidence requires disclosure in this particular instance:*Provided*, That this article does not preclude an individual from inspecting or copying his or her own personal, medical or similar file;

(3) Test questions, scoring keys and other examination data used to administer a licensing examination, examination for employment or academic examination;

(4) Records of law-enforcement agencies that deal with the detection and investigation of crime and the internal records and notations of such law-enforcement agencies which are maintained for internal use in matters relating to law enforcement;

(5) Information specifically exempted from disclosure by statute;

(6) Records, archives, documents or manuscripts describing the location of undeveloped historic, prehistoric, archaeological, paleontological and battlefield sites or constituting gifts to any public body upon which the donor has attached restrictions on usage or the handling of which could irreparably damage the record, archive, document or manuscript;

(7) Information contained in or related to examination, operating or condition reports prepared by, or on behalf of, or for the use of any agency responsible for the regulation or supervision of financial institutions, except those reports which are by law required to be published in newspapers;

(8) Internal memoranda or letters received or prepared by any public body ;

(9) Records assembled, prepared or maintained to prevent, mitigate or respond to terrorist acts or the threat of terrorist acts, the public disclosure of which threaten the public safety or the public health;

(10) Those portions of records containing specific or unique vulnerability assessments or specific or unique response plans, data, databases and inventories of goods or materials collected or assembled to respond to terrorist acts; and communication codes or deployment plans of law-enforcement or emergency response personnel;

(11) Specific intelligence information and specific investigative records dealing with terrorist acts or the threat of a terrorist act shared by and between federal and international law-enforcement agencies, state and local law-enforcement and other agencies within the Department of Military Affairs and Public Safety;

(12) National security records classified under federal executive order and not subject to public disclosure under federal law that are shared by federal agencies and other records related to national security briefings to assist state and local government with domestic preparedness for acts of terrorism;

(13) Computing, telecommunications and network security records, passwords, security codes or programs used to respond to or plan against acts of terrorism which may be the subject of a terrorist act;

(14) Security or disaster recovery plans, risk assessments, tests or the results of those tests;

(15) Architectural or infrastructure designs, maps or other records that show the location or layout of the facilities where computing, telecommunications or network infrastructure used to plan against or respond to terrorism are located or

planned to be located;

(16) Codes for facility security systems; or codes for secure applications for facilities referred to in subdivision (15) of this subsection;

(17) Specific engineering plans and descriptions of existing public utility plants and equipment;

(18) Customer proprietary network information of other telecommunications carriers, equipment manufacturers and individual customers, consistent with 47 U.S.C. §222;

(19) Records of the Division of Corrections, Regional Jail and Correctional Facility Authority and the Division of Juvenile Services relating to design of corrections, jail and detention facilities owned or operated by the agency, and the policy directives and operational procedures of personnel relating to the safe and secure management of inmates or residents, that if released, could be used by an inmate or resident to escape a facility, or to cause injury to another inmate, resident or to facility personnel ;

(20) Information related to applications under section four, article seven, chapter sixty-one of this code, including applications, supporting documents, permits, renewals, or any other information that would identify an applicant for or holder of a concealed weapon permit: *Provided:* That information in the aggregate that does not identify any permit holder other than by county or municipality is not exempted: *Provided, however,* That information or other records exempted under this subdivision may be disclosed to a law enforcement agency or officer: (i) to determine the validity of a permit, (ii) to assist in a criminal investigation or prosecution, or (iii) for other lawful law-enforcement purposes; and

(21) Personal information of law-enforcement officers maintained by the public body in the ordinary course of the employer-employee relationship. As used in this paragraph, "personal information" means a law-enforcement officer's social security number, health information, home address, personal address, personal telephone numbers and personal email addresses and those of his or her spouse, parents and children as well as the names of the law-enforcement officer's spouse, parents and children.

(b) As used in subdivisions (9) through (16), inclusive, subsection (a) of this section, the term "terrorist act" means an act that is likely to result in serious bodily injury or damage to property or the environment and is intended to:

(1) Intimidate or coerce the civilian population;

(2) Influence the policy of a branch or level of government by intimidation or coercion;

(3) Affect the conduct of a branch or level of government by intimidation or coercion; or

(4) Retaliate against a branch or level of government for a policy or conduct of the government.

(c) The provisions of subdivisions (9) through (16), inclusive, subsection (a) of this section do not make subject to the provisions of this chapter any evidence of an immediate threat to public health or safety unrelated to a terrorist act or the threat of a terrorist act which comes to the attention of a public entity in the course of conducting a vulnerability assessment response or similar activity.

#### **§29B-1-5. Enforcement.**

(1) Any person denied the right to inspect the public record of a public body may institute proceedings for injunctive or declaratory relief in the circuit court in the county where the public record is kept.

(2) In any suit filed under subsection one of this section, the court has jurisdiction to enjoin the custodian or public body from withholding records and to order the production of any records improperly withheld from the person seeking

disclosure. The court shall determine the matter de novo and the burden is on the public body to sustain its action. The court, on its own motion, may view the documents in controversy in camera before reaching a decision. Any custodian of any public records of the public body found to be in noncompliance with the order of the court to produce the documents or disclose the information sought, may be punished as being in contempt of court.

(3) Except as to causes the court considers of greater importance, proceedings arising under subsection one of this section shall be assigned for hearing and trial at the earliest practicable date.

**§29B-1-6. Violation of article; penalties.**

Any custodian of any public records who willfully violates the provisions of this article is guilty of a misdemeanor and, upon conviction thereof, shall be fined not less than \$200 nor more than \$1,000, or be imprisoned in the county jail for not more than twenty days, or, in the discretion of the court, by both fine and imprisonment.

**§29B-1-7. Attorney fees and costs.**

Any person who is denied access to public records requested pursuant to this article and who successfully brings a suit filed pursuant to section five of this article shall be entitled to recover his or her attorney fees and court costs from the public body that denied him or her access to the records.