## BENTON CLEAN AIR AGENCY 526 SOUTH STEPTOE STREET KENNEWICK, WA 99336

IN THE MATTER OF THE COMPLIANCE BY THE CITY OF RICHLAND PUBLIC WORKS DEPARTMENT HORN RAPIDS LANDFILL with Section 70A.15.2260 RCW, Operating Permits for Air Contaminant Sources, and the rules and regulations of the Benton Clean Air Agency			<ul> <li>AIR OPERATING PERMIT</li> <li>No. 05-0003</li> <li>Air Operating Permit</li> <li>Final</li> <li>June 5, 2023</li> </ul>			
To:	The City of Richland Public Works Departm	nent				
	Horn Rapids Landfill			Issue Date:	5 June 2023	
	3102 Twin Bridges Road		Effe	ctive Date:	5 June 2023	
	Richland, Washington 99354		Expir	ation Date:	5 June 2028	
Respo	Responsible Official Conta					
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Pu	blic Works Director	Public	c Work	s Capital Pro	jects Manager	
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Ph	one (509) 942-7500	(509) 942-7540				
Source	Location:					
3102 Tv	win Bridges Rd, Richland, WA 99354					
provision Act, Ch	<b>Legal Authority:</b> This AIR OPERATING PERMIT will be issued under the authority and provisions of the Federal Clean Air Act, (42 U.S.C. 7401, et seq.), the Washington Clean Air Act, Chapter70A.15 Revised Code of Washington and the Operating Permit Regulation, Chapter 173-401 Washington Administrative Code.					
	after, Horn Rapids Landfill is called "the Perr wwith the provisions contained within this p		. The Po	ermittee is r	equired to	
Reviewed By: A		Approved By:				
Robin	Bresley Priddy, P.E.	Rob Ro	dger			
Engine	eer	Contro	itrol Officer/Executive Director			
Bento	_			Benton Clean Air Agency		

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#### LIST OF ABBREVIATIONS

% Percent

AOP air operating permit

**BACT** Best Available Control Technology

BCAA Benton Clean Air Agency

British thermal unit Btu

CAM **Compliance Assurance Monitoring** CBI confidential business information

CDX Central Data Exchange

CEDRI Compliance and Emissions Data Reporting Interface

CFC Chlorofluorocarbons

CFR Code of Federal Regulations

CH₄ Methane

CO Carbon Monoxide  $CO_2$ Carbon dioxide

Ecology Washington State Department of Ecology

EPA United States Environmental Protection Agency

ERT **Electronic Reporting Tool** 

°F Degrees Fahrenheit FCAA Federal Clean Air Act **FDCP Fugitive Dust Control Plan** 

F Federally enforceable requirement

GHG greenhouse gas Hydrogen sulfide H<sub>2</sub>S HCI Hydrogen chloride

**HDPE** high density polyethylene

ID Identification

lb/MMBtu Pounds per million British thermal units

LFG Landfill gas Mg Megagrams

MRR Monitoring, Recordkeeping, and Reporting

MSW Municipal solid waste

Motor Vehicle Air Conditioner MVAC

NE Northeast

National Emission Standard for Hazardous Air Pollutants **NESHAP** 

**NMOC** Non-Methane Organic Compound

NOC **Notice of Construction**  $NO_X$ Oxides of Nitrogen

**NSPS New Source Performance Standard**  O<sub>2</sub> Oxygen

OIMP Odor Impact Minimization Plan
O&M Operations and Maintenance
PCC Point classification code

PCHB Pollution Control Hearings Board PCS Petroleum contaminated soil

PM Particulate Matter

PM<sub>2.5</sub> Particulate Matter with aerodynamic diameter  $\leq 2.5$ 

micrometers

PM<sub>10</sub> Particulate Matter with aerodynamic diameter ≤ 10

micrometers

ppmv Parts per million by volume

PSD Prevention of Significant Deterioration

PTE Potential to Emit PVC polyvinyl chloride

RACT Reasonably Available Control Technology

RCW Revised Code of Washington

RM Reference method

(S) State Only Enforceable Requirement

SCC Standard classification code

scf Standard cubic feet

scfm Standard cubic feet per minute
SIC Source industrial classification
SIP State Implementation Plan

SO<sub>2</sub> Sulfur Dioxide SO<sub>X</sub> Oxides of sulfur TAP Toxic air pollutant

TBACT Best Available Control Technology for Toxics

TPH Total petroleum hydrocarbon
TSP Total Suspended Particulate
VOC Volatile Organic Compound

vph Vehicles per hour

WAC Washington Administrative Code

WEIRS Washington Emissions Inventory Repository System

XML extensible markup language

## **AIR OPERATING PERMIT CONDITIONS**

## 1 EMISSION UNIT IDENTIFICATION

The requirements identified in this permit apply to all air emissions from Horn Rapids Landfill, located at 3102 Twin Bridges Road in Richland, Washington. Specific requirements for the processes of the source are listed in Section 6 of this permit. The permitted emission processes are listed in the table below.

**Table 1 Permitted Emission Processes** 

Source Description	Emission Points	Control Device <sup>1</sup>	Process Description
EU-1: Source-wide (see Table 2)	PM: Landfill surface, haul roads	Fugitive Dust Control Plan Odor Impact Minimization Plan	Source-wide emissions originating from site operations which include: excavation, soil stockpiling, construction of lined disposal cells, and the construction of leachate collection systems. Emissions include fugitive dust from motor vehicle operations, and emissions related to source-wide support services such as storage tanks, maintenance, housekeeping, and miscellaneous insignificant emission activities. Process #1 emission limits, work practice standards and permit conditions also apply to all significant emission units located at the source.
EU-2: Solid waste landfill (see Table 3)	Landfill gas (LFG): Flare stack, landfill surface	Active gas collection, enclosed landfill gas flare, and dust control	The total surface area of the non-hazardous solid waste landfill is 726,000 square yards (46 acres in Phases 1 and 2, and 104 acres in the Landfill Expansion), with a capacity of up to 10,862,263 tons (2,466,138 tons in Phases 1 and 2, and 8,396,125 ton in the Landfill Expansion) of solid waste (Landfill Expansion NOC Application calculations). The landfill may accept up to 220,000 tons per year of waste (OA 2019-0002, Paragraph 5.2.1). The landfill gas collection system consists of vertical extraction wells and horizontal extraction trenches, a gas condensate knockout, a motor blower, and an open flare. The open flare has a maximum design capacity of 32.8 MMBtu/hr and is permitted to combust up to 1,200 scfm of landfill gas at a minimum temperature of 1,500 °F (OA 2020 Annual Report).
EU-3: Composting operation (see Table 4)	Aerated static piles	Odor Impact Minimization Plan	Composting operation converts greenwaste and biosolids into finished compost.

<sup>&</sup>lt;sup>1</sup> Does not include control devices classified as insignificant emission units or inherent process equipment.

## 2 APPLICABLE REQUIREMENTS

Until this permit expires, is modified or revoked, the Permittee is authorized to operate Processes 1 through 3. These processes are subject to the requirements shown in Table 2, Table 3, and Table 4, and to the other terms and conditions in this permit. Applicable requirements with (S) after the date are not federally enforceable.

#### 2.1 Process 1 – Source-wide.

The following requirements apply source-wide; including, but not limited to, the solid waste landfill, the landfill gas flare, and the composting operation, unless an alternate requirement is specifically stated for a particular emissions unit. These applicable requirements apply to insignificant emissions units; however, since monitoring, recordkeeping, and reporting has not specifically been required by Benton Clean Air Agency (BCAA) for insignificant emission units, there are no air operating permit monitoring, recordkeeping, and reporting requirements for the insignificant emission units under this source-wide section, as allowed per WAC 173-401-530(2)(c).

**Table 2 Source-Wide Applicable Requirements** 

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-1.1	RCW 70A.15.1070 2020 (S) Cond. 5.2.1, Order 2006- 0012, 7/11/07	Unlawful for any person to cause air pollution or permit it to be caused in violation of this chapter, or of any ordinance, resolution, rule or regulation validly promulgated hereunder.	No monitoring required	None specified
EU-1.2	WAC 173-400-040(1) 9/16/18	All emission units are required to use reasonably available control technology (RACT)	No monitoring required	None specified
EU-1.3	WAC 173-400-200(2) 2/10/05 9/16/18(S)	No use of excess stack height or dispersion techniques shall be used to meet ambient air quality standards or prevention of significant deterioration (PSD) increments.	No monitoring required	None specified
EU-1.4	WAC 173-400-205 3/22/91	No varying of emissions according to atmospheric conditions or ambient concentrations, except as directed according to air pollution episode regulations.	No monitoring required	None specified
EU-1.5	WAC 173-400-040(2) 9/16/18 (S)	Permittee shall not cause or allow the emission for more than three minutes, in any one hour, of an air contaminant from any emissions unit which at the emission point, or within a reasonable distance of the emission point, exceeds twenty percent opacity as determined by Washington State Department of Ecology (Ecology) method 9A.	Sect. 3.1.1 Facility-Wide Inspections Sect. 3.1.2 Visible Emissions	Ecology Method 9A, "Source Test Manual - Procedures for Compliance Testing," State of Washington Department of Ecology

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-1.6	Cond. 5.2.2, Order 2006- 0012, 7/11/07 Cond. 7.11, Order 2019- 0002, 11/15/19	Visible emissions from the emission unit shall not exceed 20% for any 3-minute period as measured by EPA Method 9 of 40 Code of Federal Regulations (CFR) Appendix A	Sect. 3.1.1 Facility-Wide Inspections Sect. 3.1.2 Visible Emissions	EPA Method 9
EU-1.7	WAC 173-400-040(3) 9/16/18 (S)	Permittee shall not cause or allow the emission of particulate matter from any source to be deposited beyond the property line in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.	Sect. 3.1.1 Facility-Wide Inspections Sect. 3.1.2 Visible Emissions Sect. 3.1.5 Complaint Response	Ecology Method 9A, "Source Test Manual - Procedures for Compliance Testing," State of Washington Department of Ecology
EU-1.8	Cond. 5.2.3, Order 2006- 0012, 7/11/07	Visible emissions shall be kept within the property fence line.	Sect. 3.1.2 Visible Emissions Sect. 3.1.5 Complaint Response	EPA Method 9
EU-1.9	WAC 173-400-040(4) 9/16/18 (S)	Permittee shall take reasonable precautions to prevent the release of fugitive emissions.	Sect. 3.1.1 Facility-Wide Inspections Sect. 3.1.2 Visible Emissions Sect. 3.1.5 Complaint Response	Ecology Method 9A, "Source Test Manual - Procedures for Compliance Testing," State of Washington Department of Ecology
EU-1.10	Cond. 5.2.4, Order 2006- 0012, 7/11/07	Visible emissions shall be kept at levels that would not reasonably interfere with any other property owner's use and enjoyment of the owner's property.	Sect. 3.1.2 Visible Emissions Sect. 3.1.5 Complaint Response	EPA Method 9
EU-1.11	Cond. 5.2.5, Order 2006- 0012, 7/11/07 Cond. 5.2.2, Order 2019- 0002, 11/15/19	Visible emissions or fugitive dust from landfill operations shall not exceed 10% opacity at the property boundary, averaged over a 6-minute time period.	Sect. 3.1.2 Visible Emissions	EPA Method 9
EU-1.12	WAC 173-400-040(5) 9/16/18 (S) Cond. 6.4, Order 2006- 0012, 7/11/07 Cond. 5.4.1, Order 2019- 0002, 11/15/19	Permittee shall not cause or allow the generation of any odor from any source or activity which may unreasonably interfere with any other property owner's use and enjoyment of her or his property must use recognized good practice and procedures to reduce these odors to a reasonable minimum.	Sect. 3.1.1 Facility-Wide Inspections Sect. 3.1.4 Odor Sect. 3.1.5 Complaint Response	None specified

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-1.13	Cond. 5.5.7, Order 2006- 0012, 7/11/07 Cond. 5.4.2, Order 2019- 0002, 11/15/19	Odors shall be controlled by an active LFG gas collection and control system, a leachate collection and treatment system, aerated static pile composting practices, and waste management practices to avoid and minimize odors generated at the active face of the landfill, and plant-wide.	Sect. 3.1.4 Odor	None specified
EU-1.14	WAC 173-400-040(6) 9/16/18 (S) Cond. 6.6, Order 2006- 0012, 7/11/07 Cond. 7.6, Order 2019- 0002, 11/15/19	Permittee shall not cause or allow the emission of any air contaminant from the facility if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.	Sect. 3.1.1 Facility-Wide Inspections Sect. 3.1.5 Complaint Response	None specified
EU-1.15	WAC 173-400-040(7) 9/16/18 (S)	Permittee shall not permit or allow emission of $SO_2$ in excess of 1,000 ppmv (dry) corrected to 7% $O_2$ for fuel burning equipment.	No monitoring required	EPA Method 6C
EU-1.16	WAC 173-400-040(9)(a), 9/16/18 (S) Cond. 5.5.7, Order 2006- 0012, 7/11/07 Cond. 6.5, Order 2006- 0012, 7/11/07 Cond. 5.5.1, Order 2019- 0002, 11/15/19	Permittee shall take reasonable precautions to prevent fugitive dust from becoming airborne and must operate the facility so as to minimize fugitive dust emissions.	Sect. 3.1.3 Fugitive Dust	EPA Method 9
EU-1.17	WAC 173-400-040(9)(b), 9/16/18 (S)	The owner or operator of any existing source or activity that generates fugitive dust that has been identified as a significant contributor to a $PM_{2.5}$ nonattainment area is required to use reasonably available control technology to control emissions.	No monitoring required	None specified
EU-1.18	Cond. 5.5.2, Order 2019- 0002, 11/15/19	Internal haul roads used by garbage trucks and other vehicles that also drive off the facility will either be:  • graveled with 25-mph speed limit and watered twice daily, or  • paved.	Sect. 3.1.3 Fugitive Dust	EPA Method 9

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-1.19	Section 9.03 BCAA Reg. 1, 4/28/17 (S) WAC 173-400-101(4), 10/25/18 (S) Cond. 5.6.1, Order 2006- 0012, 7/11/07 Cond. 5.8.1, Order 2019- 0002, 11/15/19	Maintenance (O&M) Manual. The O&M Manual must include, at a minimum, landfill operations, the LFG collection and control system (flare), and the composting operation. The O&M Manual shall be prepared within 60 days of initial operation and shall be reviewed and undated at least once per calendar.	Sect. 3.2 O&M Manual Requirements Sect. 3.1.1 Facility-Wide Inspections Sect. 3.1.5 Complaint Response	None specified
EU-1.20	WAC 173-400-040(8), 9/16/18 (S)	No person shall cause or permit the installation or use of any means which conceals or masks an emission of an air contaminant.	None specified.	No additional monitoring required.
EU-1.21	WAC 173-400-060, 11/25/18 (S)	General process units required to meet all applicable provisions of WAC 173-400-040. PM shall not exceed 0.1 gr/dscf	EPA RM 5, 40 CFR Part 60, Appendix A, 7/1/13.	No additional monitoring required.

## 2.2 Process 2 – Solid Waste Landfill

The total surface area of the non-hazardous solid waste landfill is 726,000 square yards, with a capacity of up to 10,862,263 tons of solid waste. The landfill may accept up to 220,000 tons per year of waste. The landfill gas collection system consists of vertical extraction wells and horizontal extraction trenches, a gas condensate knockout, a motor blower, and an open flare. The open flare has a maximum design capacity of 32.8 MMBtu/hr and is permitted to combust up to 1,200 scfm of landfill gas at a minimum temperature of 1,500 °F.

**Table 3 Solid Waste Landfill Requirements** 

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-2.1	40 CFR 60.11(d), 10/17/2000	Operate consistent with good air pollution practice for minimizing emissions.	Sect. 3.1 Minimum Monitoring and Maintenance Requirements	None specified
EU-2.2	Cond. 5.2.1, Order 2019-0002, 11/15/19	The Horn Rapids Landfill may accept up to 220,000 tons per year of waste.	Sect. 3.1.7.1 Solid Waste Acceptance	None specified
EU-2.3	Cond. 5.1.1, Order 2019-0002, 11/15/19	LFG vinyl chloride concentration shall not exceed 12.0 ppmv.	Sect. 3.1.7.2 LFG Emission Limits	EPA Method TO-15 or TO-15A and ASTM D-5504
EU-2.4	Cond. 5.1.2, Order 2019-0002, 11/15/19	LFG hydrogen sulfide (H₂S) concentration shall not exceed 400 ppmv.	Sect. 3.1.7.2 LFG Emission Limits	EPA Method TO-15 or TO-15A
EU-2.5	Cond. 5.5.1, Order 2006-0012, 7/11/07	Active gas collection must be operated to avoid excess air infiltration into the waste mass of the landfill. O&M Manual shall include temperature and $O_2$ or $N_2$ monitoring of wells, and immediate response to abnormal readings.	Sect. 3.3.2.1 Operational Standards for Collection and Control Systems Sect. 3.3.2.4.1 LFG Collection System Monitoring	O <sub>2</sub> : Method 3A, 3C, or ASTM D6522-11 N <sub>2</sub> : Method 3C
EU-2.6	Cond. 5.5.2, Order 2006-0012, 7/11/07 Cond. 5.2.3, Order 2019-0002, 11/15/19	Operate control system such that all collected landfill gas is vented to the emission control system.	Sect. 3.3.2.1 Operational Standards for Collection and Control Systems Sect. 3.3.2.4.1 LFG Collection System Monitoring	O <sub>2</sub> : Method 3A, 3C, or ASTM D6522-11 N <sub>2</sub> : Method 3C
EU-2.7	Cond. 5.2.3, Order 2006-0012, 7/11/07	The flare shall have a stack height of 15 feet, and it shall be equipped with a wind shroud.	N/A	None specified

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-2.8	Cond. 5.5.4, Order 2006-0012, 7/11/07	Monitoring the heating value of the LFG shall be included in the O&M Manual (if the LFG control is a non-enclosed flare).	Sect. 3.2 O&M Manual Requirements	Open Flare: EPA Method, 3C (minimum of 3 30-minute
			Sect. 3.3.2.2.5 Performance Test for Non-enclosed (Open) Flare	samples)
EU-2.9	Cond. 5.5.5, Order 2006-0012, 7/11/07	Should the heating value of the LFG decrease to the point the flare cannot operate continuously, a plan for effective destruction of LFG shall be developed, implemented, and included in the O&M Manual.	Sect. 3.2 O&M Manual Requirements	None specified
EU-2.10	Cond. 5.5.6, Order 2006-0012, 7/11/07	The flare shall be equipped with a supply shut off safety system which in the event of emergency shuts off the blower and triggers a failure alarm. The safety	Sect. 3.3.2.4.2 Enclosed Flare Monitoring	None specified
		system shall be tested according the O&M Manual to ensure it is working properly.	Sect. 3.3.2.4.3 Non-enclosed (Open) Flare Monitoring	
EU-2.11	Cond. 5.2.4, Order 2019-0002, 11/15/19	An active LFG gas collection system shall be installed and operated in accordance with 40 CFR 60 Subpart XXX and 40 CFR 63 Subpart AAAA.	Sect. 3.3.2.4.1 LFG Collection System Monitoring	None specified
			Sect. 3.3.2.6.4 Collection System Records	
EU-2.12	Cond. 5.2.5, Order 2019-0002, 11/15/19	The permittee shall operate the existing non-enclosed flare in accordance with applicable requirements of 40 CFR 60 Subparts A and XXX.	Sect. 3.3.2.4.3 Non-enclosed (Open) Flare Monitoring	None specified
			Sect. 3.3.2.6.2 Control Device Records	
			Sect. 3.3.2.6.3 Control Equipment Operating Records	
EU-2.13	Cond. 5.2.6, Order 2019-0002, 11/15/19	The existing non-enclosed flare with no visible emissions, except for periods not to exceed a total of 5 minutes during any two consecutive hours per 40 CFR 60.18 (c)(1 and (f)(1).	Sect. 3.1.7.4 Flare Visible Emissions Monitoring Requirements	Method 22 or Method 9
			Sect. 3.3.2.4.3 Non-enclosed (Open) Flare Monitoring	
			Sect. 3.3.2.6.2 Control Device Records	
			Sect. 3.3.2.6.3 Control Equipment Operating Records	

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-2.14	Cond. 5.2.7, Order 2019-0002, 11/15/19	Mactronic Open Flare: Best available control technology (BACT) for the current non-enclosed flare was established at 90% destruction efficiency by Order 2006-0012 and has been determined as BACT for this Order in consideration that the landfill expansion project is intended to be followed by a separate project that will route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use. If the anticipated beneficial use project is not operating by 11/15/23, or 180 days after the beneficial use project ceases operation, the permittee shall submit a notice of construction (NOC) application for an enclosed flare designed to achieve no less than 98% non-methane organic compound (NMOC) destruction efficiency or reduce the outlet NMOC concentration to less than 20 ppmvd as hexane, corrected to 3% O <sub>2</sub> .	Sect. 3.1.2 Visible Emissions Sect. 3.3.2.4.3 Non-enclosed (Open) Flare Monitoring Sect. 3.3.2.6.2 Control Device Records Sect. 3.3.2.6.3 Control Equipment Operating Records	
EU-2.15	Cond. 5.6, Order 2006-0012, 7/11/07 Cond. 5.8, Order 2019-0002, 11/15/19	The permittee shall follow its O&M Manual for the LFG collection and control system.	Sect. 3.2 O&M Manual Requirements Sect. 3.1.1 Facility-Wide Inspections Sect. 3.1.5 Complaint Response	None specified
EU-2.16	Cond. 5.2.8, Order 2019-0002, 11/15/19	The permittee must provide notification to BCAA within 30 days of the initial operation of the expansion of the landfill. <i>NOTE: The permittee has already complied with this requirement.</i>	N/A	None specified
EU-2.17	Cond. 5.1.1, Order 2006-0012, 7/11/07	<ul> <li>The flare shall use BACT and best available control technology for toxics (TBACT), which shall be:</li> <li>5.1.1.1 BACT for NO<sub>2</sub>, CO, VOC, and PM: use of a flare, following recommendations of the O&amp;M Manual.</li> <li>5.1.1.2 BACT for SO<sub>2</sub> is variable and uncontrolled.</li> <li>5.1.1.3 TBACT for H<sub>2</sub>S and other sulfur compounds: use of flare, with 99% conversion to SO<sub>2</sub>.</li> <li>5.1.1.4 TBACT for organic TAPs: use of flare, operated in accordance with O&amp;M Manual, with control efficiency at least 99%.</li> </ul>	Sect. 3.3.2.2.4 Performance Test for Enclosed Flare Sect. 3.3.2.4.2 Enclosed Flare Monitoring Sect. 3.3.2.2.5 Performance Test for Non-enclosed (Open) Flare Sect. 3.3.2.4.3 Non-enclosed (Open) Flare Monitoring Sect. 3.3.2.6 Recordkeeping Requirements Sect. 3.3.2.7 Specifications for Active Collection Systems	Open Flare: EPA Method, 3C (minimum of 3 30-minute samples) Enclosed Flare: Method 25 or 25C (Method 25C at inlet only), Method 3, 3A, or 3C

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-2.18	40 CFR 60.760(a), 8/29/16	The provisions of Subpart XXX of 40 CFR 60 apply to each municipal solid waste (MSW) landfill that commenced construction, reconstruction, or modification after July 17, 2014. Physical or operational changes made to an MSW landfill solely to comply with subparts Cc, Cf, or WWW of this part are not considered construction, reconstruction, or modification for the purposes of §60.760.	Sect. 3.3.2.1 Operational Standards for Collection and Control Systems Sect. 3.3.2.2 Test Methods and Procedures Sect. 3.3.2.3 Compliance Provisions Sect. 3.3.2.4 Monitoring of Operations Sect. 3.3.2.5 Reporting Requirements Sect. 3.3.2.6 Recordkeeping Requirements Sect. 3.3.2.7 Specifications for Active Collection	None specified
EU-2.19	40 CFR 60.760(b), 8/29/16	The following authorities in Subpart XXX of 40 CFR 60 are retained by the Administrator and are not transferred to the state: §60.764(a)(5).  NOTE: §60.764(a)(5) concerns "other methods" that might be used to determine	N/A	None specified
		the NMOC concentration or a site-specific methane generation rate constant, and may only be approved by the EPA. §60.764(a)(5) has not been included in this air operating permit. "The administrator" has been changed to "BCAA" in all citations of Subpart XXX of 40 CFR 60 in this AOP application.		
EU-2.20	40 CFR 60.761, 8/29/16	All definitions apply.	N/A	None specified

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-2.21	40 CFR 60.762(a), 3/26/20			None specified
		<ul> <li>(1) The owner or operator must submit to BCAA an amended design capacity report, as provided for in §60.767(a)(3).</li> <li>(2) When an increase in the maximum design capacity of a landfill exempted from the provisions of §§60.762(b) through 60.769 on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator must comply with the provisions of paragraph (b) of this section.</li> </ul>		
EU-2.22	40 CFR 60.762(b), 3/26/20	Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, must either comply with paragraph (b)(2) of §60.762 or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764.  The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements.	Sect. 3.3.2.5.1Design Capacity Report Sect. 3.3.2.6.6 Design Capacity Volume/Mass Conversion	None specified

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-2.23	40 CFR 60.762(b)(2(ii), 3/26/20  40 CFR 63.1959(b)(2)(ii), 10/13/20	Install and operate a collection and control system that captures the gas generated within the landfill. An active collection system must:  (1) 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;  (2) 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 5 years or more if active; or 2 years or more if closed or at final grade.  (3) Collect gas at a sufficient extraction rate;  (4) Be designed to minimize off-site migration of subsurface gas.  A passive collection system must:  (1) Comply with the provisions specified in paragraphs (1), (2), and (3) for the active collection system required above.  (2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners must be installed as required under 40 CFR 258.40.	Sect. 3.3.2.3.1 Collection System Compliance Determination Sect. 3.3.2.5.3 Collection and Control System Design Plan Sect. 3.3.2.6.1 Design Capacity Records Sect. 3.3.2.7 Specifications for Active Collection Systems	Section 10 of EPA Method 2E Method 25 or 25C
EU-2.24	40 CFR 60.762(b)(2(iii), 3/26/20 40 CFR 63.1959(b)(2)(iii), 10/13/20	Route the collected LFG to a control system that is:  (A) An open (non-enclosed) flare designed and operated in accordance with the parameters established in §60.18 or §63.11(b) except as noted in §60.764(e) or §63.1959(e); or  (B) An enclosed flare designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppmv, dry basis as hexane at 3-percent oxygen; or  (C) 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-British thermal unit (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 must be controlled according to either paragraph (A) or (B) of this requirement.	Sect. 3.3.2.2.4 Performance Test for Enclosed Flare Sect. 3.3.2.4.2 Enclosed Flare Monitoring Sect. 3.3.2.2.5 Performance Test for Non-enclosed (Open) Flare Sect. 3.3.2.4.3 Non-enclosed (Open) Flare Monitoring Sect. 3.3.2.6 Recordkeeping Requirements Sect. 3.3.2.7 Specifications for Active Collection Systems	Open Flare: EPA Method, 3C (minimum of 3 30-minute samples) Enclosed Flare: Method 25 or 25C (Method 25C at inlet only), Method 3, 3A, or 3C

	Applicable	Requirement Paraphrase	Monitoring, Maintenance &	
	Requirement	(Information Only)	Recordkeeping Method	Reference Test Method
EU-2.25	40 CFR 60.762(b)(2)(iv), 3/26/20 40 CFR 63.1958, 63.1960, and 63.1961 10/13/2020; 2/14/2022	Operate the collection and control device installed to comply with this subpart in accordance with the provisions of §§60.763, 60.765, and 60.766 of Subpart XXX of 40 CFR 60; or the provisions of §§63.1958, 63.1960, and 63.1961 of Subpart AAA of 40 CFR 63. Once the permittee begins to comply with the provisions of §§63.1958, 63.1960, and 63.1961, the permittee must continue to operate the collection and control device according to those provisions and cannot return to the provisions of §§60.763, 60.765, and 60.766.  Note: Horn Rapids Landfill hasn't begun to comply with the provisions of §§63.1958, 63.1960, and 63.1961, so will comply with this subpart in accordance with the provisions of §§60.763, 60.765, and 60.766.	Sect. 3.3.2.1 Operational Standards for Collection and Control Systems Sect. 3.3.2.3 Compliance Provisions Sect. 3.3.2.4 Monitoring of Operations Sect. 3.3.2.6 Recordkeeping Requirements	None specified
EU-2.26	40 CFR 60.762(c) & (d), 3/26/20 Cond. 5.2.8, Order 2019-0002, 11/15/19	The permittee shall maintain an air operating permit under Title V until the landfill is closed.	N/A	None specified
EU-2.27	40 CFR 60.763(a), 8/29/16 40 CFR 63.1958(a) 10/13/20	The permittee must operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for 5 years or more if active; or 2 years or more if closed or at final grade.	Sect. 3.3.2.3.1 Collection System Compliance Determination Sect. 3.3.2.5.3 Collection and Control System Design Plan Sect. 3.3.2.3.2 Collection System Compliance Timing	None specified
EU-2.28	40 CFR 60.763(b), 8/29/16 40 CFR 63.1958(b) 10/13/20	<ul> <li>The permittee must operate the collection system with negative pressure at each wellhead except under the following conditions:</li> <li>(1) A fire or increased well temperature. The owner or operator must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the annual reports as provided in §60.767(g)(1);</li> <li>(2) Use of a geomembrane or synthetic cover. The owner or operator must develop acceptable pressure limits in the design plan;</li> <li>(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes must be approved by BCAA as specified in §60.767(c).</li> </ul>	Sect. 3.3.2.3.1 Collection System Compliance Determination	None specified

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-2.29	40 CFR 60.763(c), 8/29/16 40 CFR 63.1958(c) 10/13/20	The permittee must operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator may establish a higher operating temperature value at a particular well.	Sect. 3.3.2.3.1 Collection System Compliance Determination	None specified
EU-2.30	40 CFR 60.763(d), 8/29/16 40 CFR 63.1958(d) 10/13/20	The permittee must operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, permittee must conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.765(d). The permittee must 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. Thus, the permittee must monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required.	Sect. 3.3.2.3.3 Methane Concentration Compliance Determination Sect. 3.3.2.3.4 Monitoring System Compliance Determination	EPA Method 21 except probe inlet must be placed within 5 to 10 cm of the ground.  Monitoring must be done during typical meteorological conditions.
EU-2.31	40 CFR 60.763(e), 8/29/16 40 CFR 63.1958(e) 10/13/20	Operate the system such that all collected gases are vented to a control system designed and operated in compliance with §60.762(b)(2)(iii) or §63.1959(b)(2)(iii). In the event the collection or control system is not operating, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating and efforts to repair the collection or control system must be initiated and completed in a manner such that downtime is kept to a minimum and the collection or control system must be returned to operation.	Sect. 3.3.2.3.5 Compliance Required at All Times	None specified

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-2.32	40 CFR 60.763(f), 8/29/16 40 CFR 60.763(g), 8/29/16 40 CFR 63.1958(f) 10/13/20 40 CFR 63.1958(g) 10/13/20	Operate the control system at all times when the collected LFG is routed to the system.  If monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of §60.763 are not met, corrective action must be taken as specified in §60.765(a)(3) and (5) or (c). If corrective actions are taken as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section.	Sect. 3.3.2.3.1 Collection System Compliance Determination Sect. 3.3.2.3.2 Collection System Compliance Timing Sect. 3.3.2.3.3 Methane Concentration Compliance Determination	None Specified
EU-2.33	40 CFR 60.765(e), 3/26/20	The provisions of 40 CFR 60 Subparts A and XXX apply at all times, including during periods of startup, shutdown, or malfunction. During periods of startup, shutdown, and malfunction, the permittee must comply with the work practice specified in §60.763(e) in lieu of the compliance provisions in §60.765.	N/A	None specified
EU-2.34	40 CFR 63.1960(e)(2), 10/13/20	The provisions of 40 CFR 63 Subparts A and AAAA apply at all times, including periods of startup, shutdown, and malfunction. During periods of startup, shutdown, and malfunction, the permittee must comply with the work practice requirement specified in §63.1958(e) in lieu of compliance provisions in §63.1960.	N/A	None specified
EU-2.35	40 CFR §61.154(a), (c), (d), 7/1/13 (Asbestos NESHAP Subpart M)	In any active waste disposal site where asbestos-containing waste material has been deposited:  (1) no visible emissions to the outside air; OR,  (2) Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or  (3) Be covered with a resinous or petroleum-based dust suppression agent that	None specified.	None specified.
		effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Administrator. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.		

	Applicable Requirement		nt Paraphrase ation Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-2.36	40 CFR §61.154(b),	Areas of disposal of asbestos-containing		necoranceping incurou	Neterchice rest Wiethou
	7/1/13 (Asbestos NESHAP Subpart M)	<ul> <li>(1) have a natural barrier that adequate</li> <li>OR,</li> <li>(2) cover with ≥6 inches of compacted r</li> </ul>			
	WAC 173-400-075(1), 7/1/16	end of each operating day; or,  (3) install warning signs and fencing that  (a) display signs at all entrances and at  (b) signs posted such that legend is each  (c) 20" x 14" upright format signs; AN  (d) sign legend, size, and style at least at least equal to the height of the upp	at intervals of ≤330 feet; AND, asily read; AND, D, t equal to (spacing between lines must be		
		Legend	Notation		
		Asbestos Waste Disposal Site.	1 inch Sans Serif, Gothic, or Block		
		Do Not Create Dust	¾ inch Sans Serif, Gothic, or Block		
		Breathing Asbestos is Hazardous to Your Health.	14-point Gothic		
		Spacing between any two lines must bupper of the two lines	be at least equal to the height of the		
		AND (e) fenced in a manner adequate	to deter access by the general public.		

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-2.37	40 CFR §61.154(e), 7/1/13 (Asbestos NESHAP Subpart M) WAC 173-400-075(1), 7/1/16	For all asbestos-containing waste material received, the owner or operator of the active waste disposal site shall maintain waste shipment records which include:  (1) name, address, and telephone number of the waste generator; AND,  (2) name, address, and telephone number of the transporter(s); AND,  (3) volume of waste; AND,  (4) presence of improperly enclosed (leak-tight containers) or uncovered; AND,  (5) date of waste receipt. Send a copy of the signed waste shipment record to the waste generator within 30 days of receipt of the waste.	If significant amount of improenciosed or uncovered waste writing (with copy of waste she record) to the asbestos NESH. Administrator for the waste g (as indicated in the waste ship record),  The report should be sent to the agency address cited in C 3.3.1 under Agency Notificati Recordkeeping.  And,  U.S. EPA Region 10 Admi 1200 Sixth Avenue Seattle, WA 98101  by the following working day.	report in hipment AP program enerator oment  BCAA at ondition on and
EU-2.38	40 CFR §61.154(f), 7/1/13 (Asbestos NESHAP Subpart M) WAC 173-400-075(1), 7/1/16	Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal area on a map or diagram of the disposal area.	No additional monitoring required	None specified.

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-2.39	40 CFR §61.154(i), 7/1/13 (Asbestos NESHAP Subpart M) ———— WAC 173-400-075(1), 7/1/16	Furnish upon request and make available during normal business hours for inspection by the Ecology and EPA, all records required by the Asbestos NESHAP.	No additional monitoring required.	None specified
EU-2.40	40 CFR §61.154(j), 7/1/13 (Asbestos NESHAP Subpart M) WAC 173-400-075(1), 7/1/16	Notify BCAA and EPA in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at the site and is covered.	Notification shall include: (1) scheduled starting and completion dates; AND (2) reason for disturbing waste; AND, (3) emission control procedures to be implemented; AND, (4) location of any temporary storage site and the final disposal site. [40 CFR §61.154(j), 7/1/13]	None specified

## 2.3 Process 3 – Composting Operation

The following requirements apply to the composting operation.

## **Table 4 Composting Operation**

	Applicable Requirement	Requirement Paraphrase (Information Only)	Monitoring, Maintenance & Recordkeeping Method	Reference Test Method
EU-3.1	Cond. 5.3.1, Order 2019-0002, 11/15/19	The composting operation shall be managed according to the aerated static pile method proposed in the NOC application submitted by the permittee.	Sect. 3.1.7.5 Compost Monitoring, Reporting, and Recordkeeping	None specified
EU-3.2	Cond. 5.3.2, Order 2019-0002, 11/15/19	Biosolids and greenwaste will be accumulated in separate storage areas.	Sect. 3.1.7.5 Compost Monitoring, Reporting, and Recordkeeping	None specified
EU-3.3	Cond. 5.3.3, Order 2019-0002, 11/15/19	Accumulated biosolids and greenwaste will be ground and screened, then mixed and placed in an aerated static pile to begin the active composting phase.	Sect. 3.1.7.5 Compost Monitoring, Reporting, and Recordkeeping	None specified
EU-3.4	Cond. 5.3.4, Order 2006-0012, 7/11/07	All active phase piles will be ventilated by blowers as required to maintain optimum temperatures for aerobic composting and shall always be covered after placement.	Sect. 3.1.7.5 Compost Monitoring, Reporting, and Recordkeeping	None specified

## 3 Monitoring, Maintenance and Recordkeeping Procedures

## 3.1 Minimum Monitoring and Maintenance Requirements

#### 3.1.1 Facility-Wide Inspections

The permittee shall conduct a facility-wide inspection at least once per calendar month. These inspections shall include checking for prohibited activities and new activities that require additional approval under Chapter 173-400 WAC. The inspections shall also examine the general state of compliance with the general applicable requirements and the general effectiveness of the O&M Plan.

The facility-wide inspection shall include an inspection of the facility for odor-bearing contaminants and emissions of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interfere with enjoyment of life and property. The permittee shall also conduct quarterly inspections for fugitive dust and track-out if there are any activities underway, such as construction, that are likely to generate fugitive dust or track-out.

The permittee shall correct any problems identified by these inspections as soon as possible, but no later than 24 hours after identification or shut down the unit or activity until the problem can be corrected or report the problem as a deviation under Section 5.6.

[WAC 173-401-615(1), 10/17/02; Cond. 5.7.10, Order 2019-0002, 11/15/19]

#### 3.1.2 Visible Emissions

The permittee shall conduct monthly visible emissions surveys of all emission units during daylight hours as follows:

The survey shall be conducted from a location with a clear view of the emission unit and where the sun is not directly in the observer's eyes. The survey location shall be at least 15 feet but not more than 0.25 miles from the source. The survey shall be conducted when the facility is in operation. The observer will be educated in the general procedures for determining the presence of visible emissions (i.e. effects on the visibility of emissions caused by background contrast, position of the sun and amount of ambient lighting, and observer position relative to source and sun). The survey shall consist of a minimum 15-second visual observation of each emission unit to identify those emission units which exhibit visible emissions. The observer shall record the wind direction, sky condition, sun location with respect to the source and the survey location, and the time duration of the survey. If, during the scheduled inspection, or at any other time, visible emissions other than uncombined water are observed, the permittee shall, as soon as possible, but no later than within 24 hours of the initial observation, take corrective actions until there are no visible emissions, or alternatively, measure and record the opacity

using Ecology Method 9A or Reference Method 9<sup>1</sup> or shut down the unit or activity until it can be repaired.

[WAC 173-401-615(1), 10/17/02; Cond. 5.4.3, Order 2006-0012, 7/11/07; Cond. 5.7.10, Order 2019-0002, 11/15/19]

#### 3.1.3 Fugitive Dust

Permittee must develop and comply with a Fugitive Dust Control Plan (FDCP), which shall be incorporated into the O&M Manual required under Section 9.03 of the BCAA Regulation. [Cond. 5.5.8, Order 2006-0012, 7/11/07; Cond. 5.5.3, Order 2019-0002, 11/15/19]

The FDCP must be prepared within 180 days of the issuance of Order 2019-002 and shall be kept on-site and shall be made available upon request. [Cond. 5.5.4, Order 2019-0002, 11/15/19]

The FDCP shall include monthly facility-wide visible emission observations required in Section 3.1.2. [Cond. 5.5.5, Order 2019-0002, 11/15/19]

The permittee shall operate the facility in accordance with the FDCP. [Cond. 5.8.5, Order 2019-0002]

The permittee shall keep records that demonstrate compliance with the FDCP. [Cond. 5.7.13, Order 2019-0002, 11/15/19]

## 3.1.4 Odor

Fugitive odors shall be monitored and managed in accordance with the Odor Impact Minimization Plan (OIMP). The OIMP shall be prepared within 180 days of issue of Order 2019-0002 and updated at least once per calendar year. The OIMP shall be kept onsite and shall be made available upon request. [Cond. 5.4.3, Order 2019-0002, 11/15/19]

The permittee shall keep records that demonstrate compliance with OIMP requirements. [Cond. 5.7.12, Order 2019-0002, 11/15/19]

#### 3.1.5 Complaint Response

The permittee shall record and investigate air pollution complaints as soon as possible, but no later than three business days after receipt. Upon receiving a complaint, the permittee shall record:

- 1) The date and time of the complaint,
- 2) The name of the person complaining, if known,

<sup>&</sup>lt;sup>1</sup> The test procedures for EPA Method 9 and Ecology Method 9A are identical; the differences come in the method of determining compliance with the opacity standard. EPA Method 9 states: "For each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24. The default EPA Method 9 emission standard is based upon an averaging time for 24 observations, made over a period of six minutes, unless the applicable standard specifically calls out a different averaging time." The Ecology Method 9A emission standard is based on three minutes (12-observations) exceeding the applicable opacity limit over a one-hour period.

- 3) The nature of the complaint, and
- 4) The date, time and nature of any corrective action taken.

The permittee shall also identify complaints regarding these emissions as follows:

- Any emissions that are, or are likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interfere with enjoyment of life and property, or
- 2) Any emissions from fallout, or
- 3) Any track-out onto paved roads open to the public, or
- 4) Any emissions of odor-bearing air contaminants, or
- 5) Other emissions.

The permittee shall correct any problems identified by these inspections or complaint investigations as soon as possible, but no later than 24 hours after identification or shut down the unit or activity until it can be repaired or corrected or report the problem as a deviation under Section 3.3.2.5.10. [WAC 173-401-615(1), 10/17/02]

The permittee shall keep records of complaints as received from the public, BCAA, or any other entity. Complaints shall be promptly addressed and assessed. Records shall be maintained of the permittee's action to investigate the validity of the complaint, and what, if any, corrective action was taken in response to the complaint. BCAA shall be notified within three (3) business days of receipt of any complaint. [Cond. 5.4.6, Order 2006-0012, 7/11/07; Cond. 5.7.15, Order 2019-0002, 11/15/19]

## 3.1.6 Maintenance and Repair of Insignificant Emission Units

The permittee shall use good industrial practices to maintain insignificant emission units<sup>2</sup>. For such equipment, the permittee shall also promptly repair defective equipment or shut down the unit until defective equipment can be repaired. Records under Section 5.5 are not required for such equipment except when such equipment is inspected under Section 3.1.1 and a problem requiring prompt repair is discovered during the inspection. [WAC 173-401-615(1)(b), 10/17/02]

#### 3.1.7 Specific Monitoring

#### 3.1.7.1 Solid Waste Acceptance

The permittee shall keep a record of the weight of solid waste accepted by the landfill per day and per calendar year [Cond. 5.7.4, Order 2019-0002, 11/15/19].

<sup>&</sup>lt;sup>2</sup> WAC 173-401-200(16) states: "Insignificant activity" or "insignificant emissions unit" means any activity or emissions unit located at a chapter 401 source which qualifies as insignificant under the criteria listed in WAC 173-401-530. These units and activities are exempt from permit program requirements except as provided in WAC 173-401-530. WAC 173-401-530 contains criteria for identifying insignificant activities and emissions units. It also states that "Designation of an emission unit or activity as insignificant for purposes of this chapter does not exempt the unit or activity from any applicable requirement."

#### 3.1.7.2 LFG Emission Limits

Initial performance test: No later than 180 days after initial startup of the expansion cell, compliance with landfill gas emission limits shall be demonstrated by drawing LFG from the main LFG feeder pipe between the backflow valve and the flare by means of an evacuated Summa canister. The samples shall be collected and analyzed by EPA Methods TO-15 or TO-15A.  $H_2S$  concentration shall be determined by ASTM D-5504 [Cond. 5.1.3, Order 2019-0002, 11/15/19].

NOTE: The permittee performed this testing on the old landfill. The expanded landfill area is not being drawn from as of 10/19/21. For purposes of this requirement, the permittee is assuming that "initial startup" is the date when drawing LFG from the expansion area is commenced.

The permittee shall keep record of the LFG concentration testing procedures and results [Cond. 5.7.7, Order 2019-0002, 11/15/19].

Continuous compliance with LFG emission limits shall be reasonably assured by compliance with landfill operation requirements and monitoring, recordkeeping, and reporting (MRR) requirements in Section 3.3.2. [Cond. 5.1.4, Order 2019-0002, 11/15/19]

## 3.1.7.3 Landfill Monitoring Requirements

The following monitoring shall be completed to demonstrate the emissions control equipment is operating properly:

- The landfill gas flow rate to the flare shall be monitored and recorded upstream and downstream of the blowers.
- The landfill gas temperature shall be monitored and recorded upstream and downstream of the blowers.
- A pressure differential indicator must be continuously maintained across the flame arrestor.
- Annual and monthly hours of operation of the emissions control equipment shall be monitored and recorded.

[Cond. 5.4.2, Order 2006-0012, 7/11/07]

#### 3.1.7.4 Flare Visible Emissions Monitoring Requirements

If, at any time, visible emissions occur that has the potential to exceed the emission limit in EU-2.13, the permittee shall take the following actions:

- Verify that the landfill collection system and the flare are operating in accordance with the O&M Manual. If the collection system or the flare are not operating properly, take corrective action immediately to eliminated excess visible emissions.
- If the corrective action does not reduce visible emissions within 4 hours, report a process upset in accordance with Section 5.8 or Sections 5.9 and 5.10 of Order 2019-0002.
- If the corrective action does not rectify the visible emission problem within 12 hours, continue to take corrective actions, and measure visible emissions in accordance with

Method 9 of 40 CFR 60 Appendix A daily until the corrective action successfully eliminates excess visible emissions from the flare.

[Cond. 5.7.9, Order 2019-0002, 11/15/19]

## 3.1.7.5 Compost Monitoring, Reporting, and Recordkeeping

The permittee shall keep a record of the weight of greenwaste and biosolids accepted by the facility each day, and each calendar year. [Cond. 5.7.5, Order 2019-0002, 11/15/19]

The permittee shall keep records that demonstrate compliance with the composting operational requirements in EU-3.1, EU-3.2, EU-3.3, and EU-3.4 [Cond. 5.7.11, Order 2019-0002, 11/15/19]

## 3.2 **O&M Manual Requirements**

The permittee shall develop and implement an O&M Manual. The permittee's O&M Manual shall include procedures specifying how the permittee will assure continuous compliance with BCAA Regulation 1, and how the permittee will carry out the Minimum Monitoring and Maintenance provisions specified in Section 3.1 of this permit. The O&M Manual shall contain, at a minimum:

- All the elements called out in the applicable requirements in Section 2, including but not limited to, plans for control of fugitive dust and odors;
- Normal operating parameters for each emission unit;
- A description of the monitoring procedures;
- Monitoring and recordkeeping requirements; and
- Actions for abnormal control system operation including, but not limited to, requirements for reporting to BCAA any breakdown or malfunction which results in emission of raw LFG and for undertaking immediate remedial measures to correct the problem and prevent further fugitive emissions.

Each emission unit must be operated and maintained in accordance with the O&M Manual. [Cond. 5.8.2, Order 2019-0002]

The O&M Manual shall be updated annually to reflect any modifications to the emission units or operating procedures. The permittee shall use the results of the inspections required by this permit in its annual review of the O&M Manual. [Cond. 5.8.3, Order 2019-0002]

The O&M records must be maintained for a period of five (5) years and shall be submitted to BCAA upon request. [Cond. 5.8.4, Order 2019-0002]

For insignificant emission units, refer to the requirements stated in Section 3.1.6 of this permit. The O&M Manual shall reflect good industrial practice. In most instances, following the manufacturer's operations manual or equipment operational schedule, minimizing emissions until the repairs can be completed and taking measures to prevent recurrence of the problem may be considered good industrial practice. Determination of whether good industrial practice is being used will be based on available information such as, but not limited to, monitoring results, opacity observations, review of operations and maintenance procedures, and

inspections of the emission unit or equipment. The specific provisions of the O&M Manual, other than those required by Section 3.1, shall not be deemed part of this permit. [Cond. 5.6, Order 2006-0012, 7/11/07]

## 3.3 Notification and Recordkeeping

## 3.3.1 New Source Performance Standard (NSPS) 40 CFR 60 Subpart A

The permittee shall furnish the EPA Administrator written notification of activities listed in 40 CFR 60.7(a) and (b). The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected source; any malfunction in the air pollution control equipment; or any periods during which a monitoring device is inoperative. Each summary report form shall contain this information and be in the format described in 40 CFR 60.7(d). For the purposes of this requirement, the EPA Administrator shall be BCAA at:

Benton Clean Air Agency Attn.: Air Operating Permits 526 South Steptoe St. Kennewick, Washington 99336

[40 CFR 60.7]

## 3.3.2 NSPS 40 CFR 60 Subpart XXX

#### 3.3.2.1 Operational Standards for Collection and Control Systems

Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of §60.762(b)(2) must:

- (a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:
  - (1) 5 years or more if active; or
  - (2) 2 years or more if closed or at final grade;
- (b) Operate the collection system with negative pressure at each wellhead except under the following conditions:
  - (1) A fire or increased well temperature. The owner or operator must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the annual reports as provided in §60.767(g)(1);
  - (2) Use of a geomembrane or synthetic cover. The owner or operator must develop acceptable pressure limits in the design plan;
  - (3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes must be approved by BCAA as specified in §60.767(c);

- (c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to BCAA for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved (i.e., neither causing fires nor killing methanogens is acceptable).
- (d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator must conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.765(d). The owner or operator must 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. Thus, the owner or operator must monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.
- (e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with §60.762(b)(2)(iii). In the event the collection or control system is not operating, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating; and
- (f) Operate the control system at all times when the collected gas is routed to the system.
- (g) If monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of this section are not met, corrective action must be taken as specified in §60.765(a)(3) and (5) or (c). If corrective actions are taken as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section.

[40 CFR 60.763, 8/29/16]

#### 3.3.2.2 Test Methods and Procedures

# 3.3.2.2.1 NMOC Emission Rate Before Collection and Control System Installation

(a) The permittee must calculate the NMOC emission rate using either LandGEM<sup>3</sup>, or Equations 1 and 2 may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i)(A) and (B) of §60.764. The values to be used in both LandGEM and Equations 1 and 2 are 0.05 per year for k, 170 cubic meters per megagram for  $L_0$ , and 4,000 parts per million by volume as hexane for the  $C_{NMOC}$ . For landfills located in geographical areas with a 30-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

[40 CFR 60.764(a), 8/29/16)

# 3.3.2.2.2 NMOC Emission Rate After Collection and Control System Installation

(b) After the installation and startup of a collection and control system in compliance with this subpart, the permittee must calculate the NMOC emission rate for purposes of determining when the system can be capped, removed or decommissioned as provided in §60.762(b)(2)(v), using Equation 3:

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

Where:

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

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

 $C_{NMOC}$  = NMOC concentration, parts per million by volume as hexane.

- (1) The flow rate of landfill gas,  $Q_{LFG}$ , must be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control system using a gas flow measuring device calibrated according to the provisions of section 10 of Method 2E of appendix A of this part.
- (2) The average NMOC concentration,  $C_{NMOC}$ , must be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25 or Method 25C. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The landfill owner or operator must divide the NMOC

<sup>&</sup>lt;sup>3</sup> The Landfill Gas Emissions Model (LandGEM) is an automated estimation tool with a Microsoft Excel interface that can be used to estimate emissions rates for total landfill gas, methane, carbon dioxide, nonmethane organic compounds, and individual air pollutants from municipal solid waste landfills. It is available from Clean Air Technology Center Products | US EPA.

- concentration from Method 25 or Method 25C of appendix A of this part by six to convert from  $C_{NMOC}$  as carbon to  $C_{NMOC}$  as hexane.
- (3) The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by BCAA.
  - (i) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of the performance test, including any associated fuel analyses, according to §60.767(i)(1).
  - (ii) [Reserved]

[40 CFR 60.764(b), 8/29/16)

## 3.3.2.2.3 NMOC Emission Rate for PSD Applicability

(c) When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart must estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in §§51.166 or 52.21 of this chapter using Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

NOTE: The permittee has already complied with this requirement during the NOC application process and the MSW landfill was found to not be a PSD source.

[40 CFR 60.764(c), 8/29/16)

#### 3.3.2.2.4 Performance Test for Enclosed Flare

(d) For the performance test required in §60.762(b)(2)(iii)(B), Method 25 or 25C (Method 25C may be used at the inlet only) of appendix A of this part must be used to determine compliance with the 98 weight-percent efficiency or the 20 parts per million by volume outlet concentration level, unless another method to demonstrate compliance has been approved by BCAA as provided by §60.767(c)(2). Method 3, 3A, or 3C must be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. Method 18 may be used in conjunction with Method 25A on a limited basis (compound specific, e.g., methane) or Method 3C may be used to determine methane. The methane as carbon should be subtracted from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The landowner or operator must divide the NMOC concentration as carbon by 6 to convert from the CNMOC as carbon to CNMOC as hexane. Equation 4 must be used to calculate efficiency:

$$Control\ Efficiency = \frac{(NMOC_{in} - NMOC_{out})}{NMOC_{in}}$$

Where:

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

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

[40 CFR 60.764(d), 8/29/16)

## 3.3.2.2.5 Performance Test for Non-enclosed (Open) Flare

- (e) For the performance test required in §60.762(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in §60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under §60.18(f)(4).
  - (1) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by §60.764(b) or (d) according to §60.767(i)(1).
  - (2) [Reserved]

[40 CFR 60.764(e), 8/29/16)

#### 3.3.2.3 Compliance Provisions

## 3.3.2.3.1 Collection System Compliance Determination

- (a) Except as provided in §60.767(c)(2), the specified methods in paragraphs (a)(1) through (6) of this section must be used to determine whether the gas collection system is in compliance with §60.762(b)(2)(ii).
  - (1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with §60.762(b)(2)(ii)(C)(1), LandGEM or either Equation 5 or Equation 6 of §60.765 must be used. The methane generation rate constant (k) and methane generation potential (L<sub>0</sub>) kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by BCAA. If k has been determined as specified in §60.764(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must be used 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.
    - (i) For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_o R(e^{-kc} - e^{-kt})$$

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-1.

 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  $e^{-kc} = 1$ ).

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \sum_{i=1}^n 2kL_o M_i(e^{-kt_i})$$

Where:

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

k = Methane generation rate constant, year-1.

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

 $M_i$  = Mass of solid waste in the i<sup>th</sup> section, megagrams.

 $t_i$  = Age of the i<sup>th</sup> section, years.

- (iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, Equation 5 or Equation 6 in paragraphs (a)(1)(i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using Equation 5 or Equation 6 in paragraphs (a)(1)(i) or (ii) of this section or other methods must be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.
- (2) For the purposes of determining sufficient density of gas collectors for compliance with §60.762(b)(2)(ii)(C)(2), the owner or operator must design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to BCAA, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.
- (3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with §60.762(b)(2)(ii)(C)(3), the owner or operator must measure gauge pressure in the gas collection header applied to each individual well, monthly. If a positive pressure exists, action must be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under §60.763(b). Any attempted corrective measure must not cause exceedances of other operational or performance standards.

- (i) 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 must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured. The owner or operator must keep records according to §60.768(e)(3).
- (ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator must 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 positive pressure measurement. The owner or operator must submit the items listed in §60.767(g)(7) as part of the next annual report. The owner or operator must keep records according to §60.768(e)(4).
- (iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to BCAA, according to §60.767(g)(7) and §60.767(j). The owner or operator must keep records according to §60.768(e)(5).

## (4) [Reserved]

- (5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator must monitor each well monthly for temperature as provided in §60.763(c). If a well exceeds the operating parameter for temperature, action must be initiated to correct the exceedance within 5 calendar days. Any attempted corrective measure must not cause exceedances of other operational or performance standards.
  - (i) If a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) cannot be achieved within 15 calendar days of the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit), the owner or operator must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit) was first measured. The owner or operator must keep records according to §60.768(e)(3).
  - (ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure or elevated temperature measurement for which the root cause analysis was required, the owner or operator must 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) or positive pressure. The owner or operator must submit the items listed in §60.767(g)(7) as part of the next annual report. The owner or operator must keep records according to §60.768(e)(4).

- (iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to BCAA, according to §60.767(g)(7) and §60.767(j). The owner or operator must keep records according to §60.768(e)(5).
- (6) An owner or operator seeking to demonstrate compliance with §60.762(b)(2)(ii)(C)(4) through the use of a collection system not conforming to the specifications provided in §60.769 must provide information satisfactory to BCAA as specified in §60.767(c)(3) demonstrating that off-site migration is being controlled.

[40 CFR 60.765(a), 3/26/20]

### 3.3.2.3.2 Collection System Compliance Timing

- (b) For purposes of compliance with §60.763(a), each owner or operator of a controlled landfill must place each well or design component as specified in the approved design plan as provided in §60.767(c). Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:
  - (1) Five (5) years or more if active; or
  - (2) Two (2) years or more if closed or at final grade.

[40 CFR 60.765(b), 3/26/20]

#### 3.3.2.3.3 Methane Concentration Compliance Determination

- (c) The following procedures must be used for compliance with the surface methane operational standard as provided in §60.763(d).
  - (1) After installation and startup of the gas collection system, the permittee must monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of §60.765, according to the following schedule:

First Quarter December 15 to January 15

Second Quarter March 15 to April 15 Third Quarter June 15 to July 15

Fourth Quarter September 15 to October 15

- (2) The background concentration must be determined 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.
- (3) Surface emission monitoring must be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, except that the probe inlet must be placed within

- 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions.
- (4) Any reading of 500 parts per million or more above background at any location must be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4)(i) through (v) of this section must be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of §60.763(d).
  - (i) The location of each monitored exceedance must be marked and the location and concentration recorded.
  - (ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance must be made and the location must be re-monitored within 10 calendar days of detecting the exceedance.
  - (iii) If the re-monitoring of the location shows a second exceedance, additional corrective action must be taken and the location must be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (c)(4)(v) of this section must be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) of this section has been taken.
  - (iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (c)(4)(ii) or (iii) of this section must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in paragraph (c)(4)(iii) or (v) of this section must be taken.
  - (v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device must be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to BCAA for approval.
- (5) The owner or operator must implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

[40 CFR 60.765(c), 3/26/20]

#### 3.3.2.3.4 Monitoring System Compliance Determination

(d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section or §60.764(a)(6) must comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

- (1) The portable analyzer must meet the instrument specifications provided in section 6 of Method 21 of appendix A of this part, except that "methane" replaces all references to "VOC".
- (2) The calibration gas must be methane, diluted to a nominal concentration of 500 parts per million in air.
- (3) To meet the performance evaluation requirements in section 8.1 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 8.1 of Method 21 of appendix A of this part must be used.
- (4) The calibration procedures provided in sections 8 and 10 of Method 21 of appendix A of this part must be followed immediately before commencing a surface monitoring survey.

[40 CFR 60.765(d), 3/26/20]

# 3.3.2.3.5 Compliance Required at All Times

(e) The provisions of Subpart XXX of 40 CFR 60 apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown, and malfunction, you must comply with the work practice specified in §60.763(e) in lieu of the compliance provisions in §60.765. [40 CFR 60.765(e), 3/26/20]

# 3.3.2.4 Monitoring of Operations

#### 3.3.2.4.1 LFG Collection System Monitoring

- (a) For each active gas collection system the permittee must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:
  - (1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in §60.765(a)(3); and
  - (2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:
    - (i) The nitrogen level must be determined using Method 3C.
    - (ii) Determine the oxygen level by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (if sample location is prior to combustion) except that:
      - (A) The span must be set between 10 and 12 percent oxygen;
      - (B) A data recorder is not required;
      - (C) Only two calibration gases are required, a zero and span;
      - (D) A calibration error check is not required;
      - (E) The allowable sample bias, zero drift, and calibration drift are ±10 percent.

- (iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:
  - (A) The analyzer is calibrated; and
  - (B) The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11.
- (3) Monitor temperature of the landfill gas on a monthly basis as provided in 60.765(a)(5). The temperature measuring device must be calibrated annually using the procedure in 40 CFR part 60, appendix A-1, Method 2, section 10.3 such that a minimum of two temperature points, bracket within 10 percent of all landfill absolute temperature measurements or two fixed points of ice bath and boiling water, corrected for barometric pressure, are used.
- [40 CFR 60.766(a) 10/7/2020; Cond. 5.4.2, Order 2006-0012, 7/11/07; Cond. 5.7.6, Order 2019-0002, 11/15/19]

### 3.3.2.4.2 Enclosed Flare Monitoring

- (b) For each enclosed combustor, the permittee must calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:
  - (1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±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.
  - (2) A device that records flow to the control device and bypass of the control device (if applicable). The owner or operator must:
    - (i) Install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every 15 minutes; and
    - (ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed 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.

[40 CFR 60.766(b), 10/7/2020]

## 3.3.2.4.3 Non-enclosed (Open) Flare Monitoring

- (c) If the permittee is seeking to comply with §60.762(b)(2)(iii) using a non-enclosed flare, the permittee must install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:
  - (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.

- (2) A device that records flow to the flare and bypass of the flare (if applicable). The permittee must:
  - (i) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and
  - (ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed 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.

[40 CFR 60.766(c), 10/7/2020; Order 2006-0012, 7/11/07; Cond. 5.7.7 & 5.7.8, Order 2019-0002, 11/15/19]

# **3.3.2.4.4** Surface Methane Monitoring Intervals

(f) The permittee must monitor surface concentrations of methane according to the procedures in §60.765(c) and the instrument specifications in §60.765(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. [40 CFR 60.766(f)]

## 3.3.2.4.5 Gas Treatment System Monitoring

- (g) If the permittee is seeking to demonstrate compliance with §60.762(b)(2)(iii) by using a landfill gas 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, the permittee must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in §60.768(b)(5)(ii) and must calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). The permittee must:
  - (1) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and
  - (2) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed 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.

[40 CFR 60.766(g), 10/7/2020]

## 3.3.2.4.6 Control Equipment Monitoring

(h) The monitoring requirements of paragraphs (b), (c) (d) and (g) of §60.766 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 permittee 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. [40 CFR 60.766(h), 10/7/20]

## 3.3.2.5 Reporting Requirements

All reports required under this section shall be submitted to BCAA at the agency address cited in Condition 3.3.1 Agency Notification and Recordkeeping.

### 3.3.2.5.1 Design Capacity Report

- (e) Design capacity report. Each owner or operator subject to the requirements of this subpart must submit an initial design capacity report to BCAA.
  - (1) Submission. The initial design capacity report fulfills the requirements of the notification of the date construction is commenced as required by §60.7(a)(1) and must be submitted no later than:
    - (i) November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016; or
    - (ii) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016.
  - (2) Initial design capacity report. The initial design capacity report must contain the following information:
    - (i) 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 issued by the state, local, or tribal agency responsible for regulating the landfill.
    - (ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the state, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity must be calculated using good engineering practices. The calculations must be provided, along with the relevant parameters as part of the report. The landfill 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 its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site-specific density, which must be recalculated annually. Any density

conversions must be documented and submitted with the design capacity report. The state, tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(3) Amended design capacity report. An amended design capacity report must be submitted to BCAA providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 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 in §60.768(f).

Note: This requirement has been completed.

[40 CFR 60.767(a), 3/26/20; Cond. 5.7.3, Order 2019-0002]

## 3.3.2.5.2 NMOC Emission Rate Report

- (b) NMOC emission rate report. Each owner or operator subject to the requirements of this subpart must submit an NMOC emission rate report following the procedure specified in paragraph (i)(2) of §60.767 to BCAA initially and annually thereafter, except as provided for in paragraph (b)(1)(ii) of §60.767. BCAA may request such additional information as may be necessary to verify the reported NMOC emission rate.
  - (1) The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.764(a) or (b), as applicable.
    - (i) The initial NMOC emission rate report may be combined with the initial design capacity report required in paragraph (a) of §60.767 and must be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of §60.767. Subsequent NMOC emission rate reports must be submitted annually thereafter, except as provided for in paragraph (b)(1)(ii) of §60.767.
      - (A) November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014, but before August 29, 2016, or
      - (B) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016.
    - (ii) If the estimated NMOC emission rate as reported in the annual report to BCAA is less than 34 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit, following the procedure specified in paragraph (i)(2) of §60.767, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data

and calculations upon which this estimate is based must be provided to BCAA. This estimate must be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate must be submitted to BCAA. The revised estimate must cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

- (2) The NMOC emission rate report must include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.
- (3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements to submit an NMOC emission rate report, after installing a collection and control system that complies with §60.762(b)(2), during such time as the collection and control system is in operation and in compliance with §860.763 and 60.765.

[40 CFR 60.767(b), 3/26/20; Cond. 5.7.2, Order 2019-0002]

# 3.3.2.5.3 Collection and Control System Design Plan

- (c) Collection and control system design plan. Each owner or operator subject to the provisions of §60.762(b)(2) must submit a collection and control system design plan to BCAA for approval according to the schedule in paragraph (c)(4) of §60.767. The collection and control system design plan must be prepared and approved by a professional engineer and must meet the following requirements:
  - (1) The collection and control system as described in the design plan must meet the design requirements in §60.762(b)(2).
  - (2) The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§60.763 through 60.768 proposed by the owner or operator.
  - (3) The collection and control system design plan must either conform with specifications for active collection systems in §60.769 or include a demonstration to BCAA's satisfaction of the sufficiency of the alternative provisions to §60.769.
  - (4) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must submit a collection and control system design plan to BCAA for approval within 1 year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year.
  - (5) The landfill owner or operator must notify BCAA that the design plan is completed and submit a copy of the plan's signature page. BCAA has 90 days to decide whether the design plan should be submitted for review. If BCAA chooses to review the plan, the approval process continues as described in paragraph (c)(6) of §60.767. However, if

BCAA indicates that submission is not required or does not respond within 90 days, the landfill owner or operator can continue to implement the plan with the recognition that the owner or operator is proceeding at their own risk. In the event that the design plan is required to be modified to obtain approval, the owner or operator must take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action.

- (6) Upon receipt of an initial or revised design plan, BCAA must review the information submitted under paragraphs (c)(1) through (3) of §60.767 and either approve it, disapprove it, or request that additional information be submitted. 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 BCAA 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 they would be proceeding at their own risk.
- (7) If the owner or operator chooses to demonstrate compliance with the emission control requirements of this subpart using a treatment system as defined in this subpart, then the owner or operator must prepare a site-specific treatment system monitoring plan as specified in §60.768(b)(5).

Note: This requirement has been completed.

[40 CFR 60.767(c), 3/26/20]

## 3.3.2.5.4 Revised Design Plan

- (d) Revised design plan. The owner or operator who has already been required to submit a design plan under paragraph (c) of §60.767 must submit a revised design plan to BCAA for approval as follows:
  - (1) At least 90 days before expanding operations to an area not covered by the previously approved design plan.
  - (2) Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to BCAA according to paragraph (c) of §60.767.

[40 CFR 60.767(d), 3/26/20]

#### 3.3.2.5.5 Closure Report

(e) The permittee must submit a closure report to BCAA within 30 days of waste acceptance cessation. BCAA may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to BCAA, no additional wastes may be placed into the

landfill without filing a notification of modification as described under §60.7(a)(4). [40 CFR 60.767(e), 3/26/20]

### 3.3.2.5.6 Equipment Removal Report

- (f) The permittee must submit an equipment removal report to BCAA 30 days prior to removal or cessation of operation of the control equipment.
  - (1) The equipment removal report must contain all of the following items:
    - (i) A copy of the closure report submitted in accordance with paragraph (e) of §60.767;
    - (ii) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, unless the report of the results of the performance test has been submitted to the EPA via the EPA's Central Data Exchange (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. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX; and
    - (iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.
  - (2) BCAA may request such additional information as may be necessary to verify that all of the conditions for removal in §60.762(b)(2)(v) have been met.

[40 CFR 60.767(f), 3/26/20]

#### 3.3.2.5.7 Annual Report

(g) The permittee must submit to BCAA, following the procedure specified in paragraph (i)(2) of §60.767, annual reports of the recorded information in paragraphs (g)(1) through (7) of §60.767. The initial annual report must be submitted within 180 days of installation and startup of the collection and control system and must include the initial performance test report required under §60.8, as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX. In the initial annual report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX. For enclosed combustion devices and flares, reportable exceedances are defined under §60.768(c) (Section 3.3.2.6.3).

- (1) Value and length of time for exceedance of applicable parameters monitored under §60.766(a), (b), (c), (d), and (g).
- (2) 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 under §60.766.
- (3) 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.
- (4) All periods when the collection system was not operating.
- (5) The location of each exceedance of the 500 parts per million methane concentration as provided in §60.763(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.
- (6) The date of installation and the location of each well or collection system expansion added pursuant to §60.765(a)(3), (a)(5), (b), and (c)(4).
- (7) For any corrective action analysis for which corrective actions are required in §60.765(a)(3) or (5) 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 or elevated temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

[40 CFR 60.767(g), 3/26/20]

#### 3.3.2.5.8 Initial Performance Test Report

This report has been submitted, so this requirement is fulfilled. [40 CFR 60.767(h), 3/26/20]

## 3.3.2.5.9 Electronic Reporting

- (i) The permittee must submit reports electronically according to paragraphs (i)(1) and (2) of §60.767.
  - (1) Within 60 days after the date of completing each performance test (as defined in §60.8), the permittee must submit the results of each performance test according to the following procedures:
    - (i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (https://www3.epa.gov/ttn/chief/ert/ert\_\_\_\_info.html) at the time of the test, the permittee must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed

through the EPA's CDX (https://cdx.epa.gov/). Performance test data must be submitted 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 Web site, once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), the permittee must 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 Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

- (ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the permittee must submit the results of the performance test to BCAA at the address listed in Section 3.3.1.
- (2) Each owner or operator required to submit reports following the procedure specified in this paragraph must submit reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The owner or operator must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI Web site (https://www3.epa.gov/ttn/chief/cedri/index.html). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the owner or operator must submit the report to BCAA at the address listed in Section 3.3.1. Once the form has been available in CEDRI for 90 calendar days, the owner or operator must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

[40 CFR 60.767(i), 3/26/20]

### 3.3.2.5.10 Corrective Action and the Corresponding Timeline

- (j) The permittee must submit according to paragraphs (j)(1) and (2) of §60.767.
  - (1) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(iii) and is expected to take longer than 120 days after the initial exceedance to complete, the permittee must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to BCAA 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). BCAA must approve the plan for corrective action and the corresponding timeline.

(2) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(iii) and is not completed within 60 days after the initial exceedance, the permittee must submit a notification to BCAA as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

[40 CFR 60.767(j), 3/26/20]

### 3.3.2.5.11 Liquids Addition Report

This report is not applicable because no leachate is recirculated or liquid added. [40 CFR 60.767(k), 3/26/20]

### 3.3.2.5.12 Tier 4 Notification

This report is not applicable. [40 CFR 60.767(I), 3/26/20]

## 3.3.2.5.13 24-Hour High Temperature Report

This report is not applicable because Horn Rapids Landfill is not choosing to comply with §§63.1958, 63.1960, and 63.1961, as allowed at §60.762(b)(2)(iv). [40 CFR 60.767(l), 3/26/20]

#### 3.3.2.6 Recordkeeping Requirements

## 3.3.2.6.1 Design Capacity Records

(i) The permittee shall keep for at least five years up-to-date, readily accessible, on-site records of the design capacity report which triggered 40 CFR 60.762(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Offsite records may be maintained if they are retrievable within four hours. Either paper copy or electronic formats are acceptable. [40 CFR 60.768(a), 3/6/20]

### 3.3.2.6.2 Control Device Records

- (j) The permittee must keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in paragraphs (b)(1) through (5) of §60.768 as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal.
  - (1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(ii):
    - (i) The maximum expected gas generation flow rate as calculated in §60.765(a)(1).
    - (ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.769(a)(1).
  - (2) Where the permittee seeks to demonstrate compliance with §60.762(b)(2)(iii) through use of an enclosed flare:
    - (i) The average temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

- (ii) The percent reduction of NMOC determined as specified in §60.762(b)(2)(iii)(B) achieved by the control device.
- (3) Not applicable.
- (4) Where the permittee seeks to demonstrate compliance with §60.762(b)(2)(iii)(A) through use of a non-enclosed flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), 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 §60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.
- (5) Where the permittee seeks to demonstrate compliance with §60.762(b)(2)(iii) through use of a landfill gas treatment system:
  - (i) Bypass records. Records of the flow of landfill gas to, and bypass of, the treatment system.
  - (ii) Site-specific treatment monitoring plan, to include:
    - (A) Monitoring records of parameters that are 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, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.
    - (B) 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.
    - (C) Documentation of the monitoring methods and ranges, along with justification for their use.
    - (D) Identify who is responsible (by job title) for data collection.
    - (E) Processes and methods used to collect the necessary data.
    - (F) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

[40 CFR 60.768(b), 3/6/20; Cond. 5.7.7 & 5.7.8, Order 2019-0002, 11/15/19]

#### 3.3.2.6.3 Control Equipment Operating Records

(c) The permittee must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in §60.766 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.

- (1) The permittee, if seeking to comply with the provisions of this subpart by use of an enclosed combustor, all 3-hour periods of operation during which the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with §60.762(b)(2)(iii) was determined.
- (2) The permittee must 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, specified under §60.766.
- (3) Not applicable
- (4) The permittee, if seeking to comply with the provisions of this subpart by use of a non-enclosed flare, must keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under §60.766(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.
- (5) The permittee, if seeking to comply with the provisions of this subpart by using an active collection system designed in accordance with §60.762(b)(2)(ii) must keep records of periods when the collection system or control device is not operating.

[40 CFR 60.768(c), 3/6/20; Cond. 5.4.4, 5.4.5 & 5.4.7, Order 2006-0012, 7/11/07; Cond. 5.7.7 & 5.7.8, Order 2019-0002, 11/15/19]

## 3.3.2.6.4 Collection System Records

- (d) The permittee must keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.
  - (1) The permittee must keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under §60.765(b).
  - (2) The permittee must keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in §60.769(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.769(a)(3)(ii).

[40 CFR 60.768(d), 3/6/20; Cond. 5.7.6, Order 2019-0002, 11/15/19]

#### 3.3.2.6.5 Exceedances and Corrective Actions Records

- (e) The permittee must keep for at least 5 years up-to-date, readily accessible records of the items in paragraphs (e)(1) through (5) of §60.768.
  - (1) All collection and control system exceedances of the operational standards in §60.763, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

- (2) The permittee must also keep records of each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent.
- (3) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(i) or (a)(5)(i), keep a record of 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.
- (4) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(ii) or (a)(5)(ii), keep a record of 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.
- (5) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(iii) or (a)(5)(iii), keep a record of 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 regulatory agency.

[40 CFR 60.768(e), 3/6/20; Cond. 5.4.5, Order 2006-0012, 7/11/07; Cond. 5.7.6, Order 2019-0002, 11/15/19]

## 3.3.2.6.6 Design Capacity Volume/Mass Conversion

(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity", must keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

[40 CFR 60.768(f), 3/6/20]

#### 3.3.2.7 Specifications for Active Collection Systems

- (a) The permittee seeking to comply with §60.762(b)(2)(i) must 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:
  - (1) The collection devices within the interior must be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues must be addressed in the design: Depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate

management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system.

- (2) The sufficient density of gas collection devices determined in paragraph (a)(1) of §60.769 must 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.
- (3) The placement of gas collection devices determined in paragraph (a)(1) of §60.769 must control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (ii) of §60.768.
  - (i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under §60.768(d). The documentation must provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and must be provided to BCAA upon request.
  - (ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented and provided to BCAA upon request. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill.
    - (A) The NMOC emissions from each section proposed for exclusion must be computed using the following equation:

$$Q_i = 2kL_0M_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

Where:

 $Q_i$  = NMOC emission rate from the i<sup>th</sup> section, megagrams per year.

k = Methane generation rate constant, year-1.

 $L_0$  = Methane generation potential, cubic meters per megagram solid waste.

 $M_i$  = Mass of the degradable solid waste in the i<sup>th</sup> section, megagram.

 $t_i$  = Age of the solid waste in the i<sup>th</sup> section, years.

 $C_{NMOC}$  = Concentration of nonmethane organic compounds, parts per million by volume.

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

(B) If the permittee is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (e.g., separately lined) closed areas that

already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in §60.764(b) or Equation 7 in paragraph (a)(3)(ii)(A) of §60.768.

- (iii) The values for k and  $C_{NMOC}$  determined in field testing must be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, Lo and  $C_{NMOC}$  provided in  $\S60.764(a)(1)$ . The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (a)(3)(i) of  $\S60.768$ .
- (b) Each owner or operator seeking to comply with §60.762(b)(2)(ii)(A) construct the gas collection devices using the following equipment or procedures:
  - (1) The landfill gas extraction components must be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: Convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system must extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors must be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations must be situated with regard to the need to prevent excessive air infiltration.
  - (2) Vertical wells must be placed so as not to endanger underlying liners and must address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors must be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices must be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.
  - (3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly must include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices must be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.
- (c) Each owner or operator seeking to comply with §60.762(b)(2)(iii) must convey the landfill gas to a control system in compliance with §60.762(b)(2)(iii) through the collection header pipe(s). The gas mover equipment must be sized to handle the maximum gas generation

flow rate expected over the intended use period of the gas moving equipment using the following procedures:

- (1) For existing collection systems, the flow data must be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of §60.769 must be used.
- (2) For new collection systems, the maximum flow rate must be in accordance with §60.765(a)(1).

[40 CFR 60.769, 8/29/16]

#### 4 PERMIT PROVISOS

#### 4.1 Permit Shield

Compliance with the conditions of this permit shall be deemed compliance with those applicable requirements that are specifically included in and identified in the permit as of the date of permit issuance. [WAC 173-401-640(1), 11/4/93]

The permit shield shall not apply to any insignificant emissions unit or activity designated under WAC 173-401-530. [WAC 173-401-530(3), 10/17/02]

## 4.2 Severability

If any provision of this permit is held to be invalid, all unaffected provisions of the permit shall remain in effect and be enforceable. [WAC 173-401-620(2)(h), 11/4/93]

### 4.3 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege. [WAC 173-401-620(2)(d), 11/4/93]

# 4.4 Transfer of Ownership or Operation

A change in ownership or operational control of this source is treated as an administrative permit amendment if no other change in this permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to BCAA. [WAC 173-401-720(1)(d), 11/4/93]

#### 4.5 Emissions Trading

No permit revision shall be required, under any approved economic incentives, marketable permits, emission trading, and other similar programs or processes for changes that are provided for in this permit. [WAC 173-401-620(2)(g), 11/4/93]

#### 4.6 Enforceability

All terms and conditions of the permit are enforceable by the EPA and citizens, unless specifically designated as state-only enforceable (S). [WAC 173-401-625, 11/4/93]

#### 4.7 General Obligation - Exclusions

Nothing in this permit shall alter or affect the following:

The provisions of section 303 of the Federal Clean Air Act (FCAA) (emergency orders), including the authority of BCAA under that section.

The liability of an owner or operator of a source for any violation of applicable requirements prior to, or at the time of, permit issuance.

The applicable requirements of the acid rain program, consistent with section 408(a) of the FCAA.

The ability of EPA to obtain information from a source pursuant to section 114 of the FCAA.

The ability of BCAA to establish or revise requirements for the use of RACT as provided in Chapter 252, Laws of 1993.

[WAC 173-401-640(4), 11/4/93]

## 4.8 Reasonably Available Control Technology

Emission standards and other requirements contained in rules or regulatory orders in effect at the time of operating permit issuance or renewal shall be considered RACT for purpose of permit issuance or renewal.

This does not preclude RACT determinations under Section 8, Chapter 252, Laws of 1993, which shall be incorporated into an operating permit as provided in WAC 173-401-730.

[WAC 173-401-605(3), 11/4/93; RCW 70A.15.2220, 2020 (S)]

## 4.9 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

[WAC 173-401-620(2)(b), 11/4/93]

#### 4.10 Permit Actions

This permit may be modified, revoked, reopened, and reissued, or terminated for cause.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

[WAC 173-401-620(2)(c), 11/4/93]

#### 4.11 Permit Continuation

This permit and all terms and conditions contained therein, including any permit shield provided under WAC 173-401-640, shall not expire until the renewal permit has been issued or denied if a timely and complete renewal application has been submitted.

An application shield granted pursuant to WAC 173-401-705(2) shall remain in effect until the renewal permit has been issued or denied if a timely and complete renewal application has been submitted.

[WAC 173-401-620(2)(j), 11/4/93]

#### 4.12 Permit appeals

The permittee has a right to appeal this permit to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this permit. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal the permittee must do all of the following within 30 days of the date of receipt of this permit:

- File appeal and a copy of this permit with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of appeal and this permit on BCAA in paper form by mail or in person (see addresses below); e-mail is not accepted.

The permittee must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Address and Location Information:

## **Street Address and Mailing Address**

Benton Clean Air Agency:

The appeal should be sent to BCAA at the agency address cited in Condition 3.3.1 under Agency Notification and Recordkeeping.

Pollution Control Hearings Board

1111 Israel RD SW Pollution Control Hearings Board

STE 301 PO Box 40903

Tumwater, WA 98501 Olympia, WA 98504-0903

[RCW 70A.15.2530, 2020 (S)]

This provision for appeal in WAC 173-401-620 is separate from and additional to any federal rights to petition and review under Section 505(b) of the FCAA. [WAC 173-401-620(2)(i), 11/4/93; Cond. 7.9, Order 2006-0012, 7/11/07; Cond. 7.11, Order 2019-0002, 11/15/19]

#### 5 PERMIT ADMINISTRATION

### 5.1 Duty to Comply

The permittee must comply with all conditions of this Chapter 173-401 WAC permit.

Any permit noncompliance constitutes a violation of Chapter 70A.15 RCW and, for federally enforceable provisions, a violation of the FCAA. Such violations are grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[WAC 173-401-620(2)(a), 11/4/93]

### 5.2 Inspection and Entry

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow BCAA or an authorized representative to perform the following:

- Enter upon the permittee's premises where a Chapter 173-401 WAC source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
- Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
- Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
- As authorized by WAC 173-400-105 and the FCAA, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.

[WAC 173-401-630(2), 3/5/16; Cond. 5.3.1, Order 2019-0002, 11/15/19]

BCAA may require the permittee to conduct stack and/or ambient air monitoring and report the results to BCAA. [WAC 173-400-105(2), 11/25/18; Cond. 7.1, Order 2006-0012, 7/11/07; Cond. 5.6.1, Order 2019-0002]

BCAA may conduct or require that a test be conducted using approved EPA methods from 40 CFR 60 Appendix A or approved procedures contained in "Source Test Manual - Procedures for Compliance Testing," Ecology, 7/12/90. The permittee may be required to provide platform and sampling ports. BCAA shall be allowed to obtain a sample from any emissions unit. The permittee shall be given the opportunity to observe the sampling and to obtain a sample at the same time. [WAC 173-400-105(4), 11/25/18; Cond. 7.1, Order 2006-0012, 7/11/07]

BCAA may conduct source tests and require access to records, books, files, and other information specific to the control, recovery, or release of pollutants regulated under 40 CFR Part 61. [WAC 173-400-075(2), 7/1/16 (S)]

No person shall obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out official duties. [RCW 70A.15.2500, 2013 (S)]

#### 5.3 Permit Fees

The permittee shall pay fees as a condition of this permit in accordance with BCAA's fee schedule.

Failure to pay fees in a timely fashion shall subject the permittee to civil and criminal penalties as prescribed in chapter 70A.15 RCW. BCAA may revoke this permit if the permit fees are not paid per WAC 173-401-930(3).

[WAC 173-401-620(2)(f), 11/4/93; RCW 70A.15.2270(1), 2020 (S); WAC 173-401-930, 4/2/14]

## 5.4 Duty to Provide Information

The permittee shall furnish to BCAA, within a reasonable time, any information that BCAA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.

Upon request, the permittee shall also furnish to BCAA copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to BCAA along with a claim of confidentiality. Permitting authorities shall maintain confidentiality of such information in accordance with RCW 70A.15.2510.

[WAC 173-401-620(2)(e), 11/4/93]

#### 5.5 Recordkeeping

The permittee shall keep records of required monitoring information that includes, where applicable, the following:

The date, place, and time of sampling or measurements.

The date(s) analyses were performed.

The company or entity that performed the analyses.

The analytical techniques or methods used.

The results of such analyses.

The operating conditions as existing at the time of sampling or measurement.

[WAC 173-401-615(2)(a), 10/17/02]

The permittee shall keep records describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. [WAC 173-401-615(2)(b), 10/17/02]

The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings from continuous monitoring instrumentation, and copies of all reports required by this permit. [WAC 173-401-615(2)(c), 10/17/02; Cond. 5.4.1, Order 2006-0012, 7/11/07; Conditions 5.7.1, 5.7.11, 5.7.12,5.7.13, 5.7.15, 5.8.4, 7.4 of Order 2019-0002, 11/15/19]

### 5.6 Reporting

#### 5.6.1 Reports

The permittee shall submit reports of any required monitoring (i.e., Monitoring Recordkeeping and Reporting column of Section 2) at least once every six (6) months. At a minimum, reports for January 1st through June 30th and July 1st through December 31st, shall be due August 15th and February 15th, respectively. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with WAC 173-401-520. [WAC 173-401-615(3)(a), 10/17/02]

#### 5.6.2 Deviations

The permittee shall report deviations from permit requirements, including those attributable to upset conditions, the probable cause of such deviations, and any corrective actions or preventative measures taken. Such deviations shall be reported 'promptly'. For deviations which represent a potential threat to human health or safety, 'promptly' means as soon as possible, but in no case later than twelve (12) hours after the deviation is discovered. The source shall maintain a contemporaneous record of all deviations. Other deviations shall be reported no later than thirty (30) days after the end of the month during which the deviation is discovered. Reports shall be sent to BCAA at:

Benton Clean Air Agency: The report should be sent to BCAA at the agency address cited in Condition 3.3.1 under Agency Notification and Recordkeeping.

[WAC 173-401-615(3)(b), 10/17/02; Cond. 5.4.4.4, Order 2006-0012, 7/11/07]

### 5.7 Emergency Provision

Definition. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Effect of an emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of subsection (3) of WAC 173-401-645 are met.

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

An emergency occurred and that the permittee can identify the cause(s) of the emergency;

The permitted facility was at the time being properly operated;

During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

The permittee submitted notice of the emergency to the permitting authority within two working days of the time when emission limitations were exceeded due to the emergency or shorter periods of time specified in an applicable requirement. This notice fulfills the requirement of WAC 173-401-615 (3)(b) unless the excess emissions represent a potential threat to human health or safety. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

Relationship to other rules. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[WAC 173-401-645, 11/4/93]

#### 5.8 Excess Emissions

WAC 173-400-107 is in effect until the effective date of EPA's removal of the September 20, 1993 version of WAC 173-400-107 from the State Implementation Plan (SIP). WAC 173-400-107 is not effective starting on that date.

The owner or operator of a source shall have the burden of proving to BCAA in an enforcement action that excess emissions were unavoidable. This demonstration shall be a condition to obtaining relief under subsections (4), (5) and (6) of WAC 173-400-107.

Excess emissions determined to be unavoidable under the procedures and criteria in WAC 173-400-107 shall be excused and not subject to penalty.

Excess emissions which represent a potential threat to human health or safety or which the owner or operator of the source believes to be unavoidable shall be reported to BCAA as soon as possible. Other excess emissions shall be reported within thirty days after the end of the month during which the event occurred or as part of the routine emission monitoring reports. Upon request by BCAA, the owner(s) or operator(s) of the source(s) shall submit a full written report including the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.

Excess emissions due to startup or shutdown conditions shall be considered unavoidable provided the source reports as required under subsection (3) of WAC 173-400-107 and adequately demonstrates that the excess emissions could not have been prevented through careful planning and design and if a bypass of control equipment occurs, that such bypass is necessary to prevent loss of life, personal injury, or severe property damage.

Maintenance. Excess emissions due to scheduled maintenance shall be considered unavoidable if the source reports as required under subsection (3) of WAC 173-400-107 and adequately demonstrates that the excess emissions could not have been avoided through reasonable design, better scheduling for maintenance or through better operation and maintenance practices.

Excess emissions due to a malfunction or upset shall be considered unavoidable provided the source reports as required under subsection (3) of WAC 173-400-107 and adequately demonstrates that:

The event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition;

The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance; and

The operator took immediate and appropriate corrective action in a manner consistent with good air pollution control practice for minimizing

emissions during the event, taking into account the total emissions impact of the corrective action, including slowing or shutting down the emission unit as necessary to minimize emissions, when the operator knew or should have known that an emission standard or permit condition was being exceeded.

[WAC 173-400-107, 9/20/93, 9/16/18(s); Cond. 5.4.4, Order 2006-0012, 7/11/07]

# 5.9 Excess Emissions Reporting

(State-only requirement not federally enforceable.) WAC 173-400-108 takes effect on the effective date of EPA's removal of the September 20, 1993 version of WAC 173-400-107 from the SIP.

Notify the permitting authority.

When excess emissions represent a potential threat to human health or safety, the owner or operator must notify the permitting authority by phone or electronic means as soon as possible, but not later than twelve hours after the excess emissions were discovered.

For all other excess emissions, the owner or operator must notify the permitting authority in a report as provided in subsection (2) of WAC 173-400-108.

Report. The owner or operator must report all excess emissions to the permitting authority:

To claim emissions as unavoidable under WAC 173-400-109, the report must contain the information in subsection (4) of WAC 173-400-108.

Chapter 173-401 WAC source: As provided in WAC 173-401-615(3) and subsection (4) of WAC 173-400-108. Subsection (3) of WAC 173-400-108 does not apply to a chapter 401 source reporting under WAC 173-401-615.

All other sources:

Within thirty days after the end of the month during which the event occurred; or

As part of the next routine emission monitoring report.

The report must contain at least the following information:

Date, time, duration of the episode;

Known causes;

For exceedances of an emission limitation other than opacity, an estimate of the quantity of excess emissions;

The corrective actions taken; and

The preventive measures taken or planned to minimize the chance of recurrence.

For an excess emission event that the owner or operator claims was unavoidable under WAC 173-400-109, the report must also include the following information:

Properly signed contemporaneous records or other relevant evidence documenting the owner or operator's actions in response to the excess emissions event;

Information on whether installed emission monitoring and pollution control systems were operating at the time of the exceedance. If either or both systems were not operating, information on the cause and duration of the outage; and

All additional information required under WAC 173-400-109(5) supporting the claim that the excess emissions were unavoidable.

[WAC 173-400-108, 9/20/93, 9/16/18(S); Cond. 5.7.14, Order 2019-0002, 11/15/19; Cond. 5.4.4, Order 2006-0012, 7/11/07]

#### 5.10 Unavoidable Excess Emissions

(State-only requirement not federally enforceable.) WAC 173-400-109 takes effect on the effective date of EPA's removal of the September 20, 1993, version of WAC 173-400-107 from the SIP.

Excess emissions determined to be unavoidable under the procedures and criteria in WAC 173-400-109 are violations of the applicable statute, rule, permit, or regulatory order.

The permitting authority determines whether excess emissions are unavoidable based on the information supplied by the source and the criteria in subsection (5) of WAC 173-400-109.

Excess emissions determined by the permitting authority to be unavoidable are:

A violation subject to WAC 173-400-230 (3), (4), and

Not subject to civil penalty under WAC 173-400-230(2).

The owner or operator of a source shall have the burden of proving to the permitting authority in an enforcement action that excess emissions were unavoidable. This demonstration shall be a condition to obtaining relief under subsection (5) of WAC 173-400-109.

WAC 173-400-109 does not apply to an exceedance of an emission standard in 40 CFR Parts 60, 61, 62, 63, and 72, or a permitting authority's adoption by reference of these federal standards.

Excess emissions that occur due to an upset or malfunction during a startup or shutdown event are treated as an upset or malfunction under subsection (5) of WAC 173-400-109.

Excess emissions due to an upset or malfunction will be considered unavoidable provided the source reports as required by WAC 173-400-108 and adequately demonstrates to the permitting authority that:

The event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition;

The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance;

When the operator knew or should have known that an emission standard or other permit condition was being exceeded, the operator took immediate and appropriate corrective action in a manner consistent with safety and good air pollution control practice for minimizing emissions during the event, taking into account the total emissions impact of the corrective action. Actions taken could include slowing or shutting down the emission unit as necessary to minimize emissions;

If the emitting equipment could not be shut down during the malfunction or upset to prevent the loss of life, prevent personal injury or severe property damage, or to minimize overall emissions, repairs were made in an expeditious fashion;

All emission monitoring systems and pollution control systems were kept operating to the extent possible unless their shutdown was necessary to prevent loss of life, personal injury, or severe property damage;

The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent possible; and

All practicable steps were taken to minimize the impact of the excess emissions on ambient air quality.

[WAC 173-400-109, 9/20/93, 9/16/18(S); Cond. 5.4.4, Order 2006-0012, 7/11/07]

#### 5.11 Submittals

Reports, test data, monitoring data, and notifications, required by this permit, and requests for permit renewal shall be submitted to BCAA at the agency address cited in Condition 3.3.1 under Agency Notification and Recordkeeping.

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [WAC 173-401-520, 11/4/93]

#### 5.12 Emission Inventory

Permittee shall submit an inventory of emissions from the source for each calendar year. The inventory shall include segmented stack and fugitive emissions of TSP, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, CO, NO<sub>x</sub>, VOC, lead, and ammonia. The inventory shall also include the data elements of: inventory year, inventory start date, inventory end date, contact name, contact phone number, Federal Information Processing Standard code, facility identification codes, unit identification code, process identification code, stack identification code, site name, physical address, Standard Classification Code, heat content (fuel) (annual average), ash content (fuel) (annual average), sulfur content (fuel) (annual average), pollutant code, activity/throughput (for each period reported), annual emissions, emission factor, winter throughput (percent), spring throughput (percent), summer throughput (percent), fall throughput (percent), hr/day in operation, days per week in operation, weeks per year in operation, as defined in 40 CFR Part 51, Subpart A, Appendix A, 7/1/13. The inventory shall be submitted for each calendar year, no later than April 15th of the following year.

The source shall maintain records of information necessary to substantiate any reported emissions, consistent with the averaging times for the applicable standards. Emission inventories shall be entered into the Washington Emissions Inventory Repository System (WEIRS). To access WEIRS, the permittee, a representative of the permittee, or both will need to create or more Secure Access Washington accounts, and request admittance to the WEIRS system. WEIRS was formerly known as the Washington Emissions Inventory Repository Database, and may be referred to as such in some instances. Secure Access Washington can be accessed at: https://secureaccess.wa.gov/

[WAC 173-400-105(1), 8/20/93, 4/2/14 (S); 40 CFR Part 51, Subpart A, Appendix A, 7/1/13]

#### 5.13 Reporting of Emissions of Greenhouse Gases (GHGs)

If the source emits 10,000 metric tons of GHGs or more per calendar year, as defined under WAC 173-441-020(1)(g), reporting of GHG to Ecology is mandatory. (Note: WAC 173-441-030(5) details reporting requirements for facilities which historically exceed the threshold, but currently have lower carbon dioxide equivalent emissions.)

The permittee shall develop a written GHG monitoring plan in accordance with WAC 173-441-050(6)(e). The permittee shall revise the GHG monitoring plan as needed to reflect changes in processes, monitoring instrumentation, and quality assurance procedures; or to improve procedures for the maintenance and repair

of monitoring systems to reduce the frequency of monitoring equipment downtime.

[WAC 173-441-050(6), 4/2/14 (S)]

## **5.13.1 Reports**

Reports must meet the requirements of WAC 173-441-050 and include the annual emissions of the GHGs listed in WAC 173-441-040 from source categories listed in WAC 173-441-120. The annual GHG report shall be submitted electronically in accordance with the requirements of WAC 173-441-050 and 173-441-060 and in a format specified by Ecology. Report submission due dates:

Facilities required to report GHG emissions to the EPA under 40 CFR Part 98, must submit a report to Ecology no later than March 31st of each calendar year for GHG emissions in the previous calendar year.

Facilities not required to report GHG emissions to the EPA under 40 CFR Part 98, must submit a report to Ecology no later than October 31st of each calendar year for GHG emissions in the previous calendar year. (Note: The permittee is anticipated to trigger this report deadline.)

All requests, notifications, and communications to Ecology pursuant GHG emissions reporting, other than submittal of the annual GHG report, shall be submitted to the following address:

Greenhouse Gas Report Air Quality Program Department of Ecology P.O. Box 47600 Olympia, WA 98504-7600

The permittee shall submit a revised annual GHG report within forty-five days of discovering that an annual GHG report that the permittee previously submitted contains one or more substantive errors. A substantive error is an error that impacts the quantity of GHG emissions reported or otherwise prevents the reported data from being validated or verified. The revised report must correct all substantive errors.

Ecology may notify the permittee in writing that an annual GHG report previously submitted contains one or more substantive errors. Such notification will identify each such error. The permittee shall, within forty-five days of receipt of the notification, either resubmit the report that, for each identified substantive error, corrects the identified substantive error (in accordance with the applicable requirements of this permit) or provide information demonstrating that the previously submitted report does not contain the identified substantive error or that the identified error is not a substantive error.

[WAC 173-441-050, 4/2/14 (S); WAC 173-441-100, 4/2/14 (S)]

#### **5.13.2** Records

The permittee shall maintain records in accordance with WAC 173-441-050, retaining, at a minimum, the following:

A list of all units, operations, processes, and activities for which GHG emissions were calculated.

The data used to calculate the GHG emissions for each unit, operation, process, and activity, categorized by fuel or material type. These data include, but are not limited to, the following information:

The GHG emissions calculations and methods used, as required by WAC 173-441-120.

Analytical results for the development of site-specific emissions factors.

The results of all required analyses for high heat value, carbon content, and other required fuel or feedstock parameters.

Any facility operating data or process information used for the GHG emission calculations.

Copies of the annual GHG reports.

Missing data computations. For each missing data event, also retain a record of the cause of the event and the corrective actions taken to restore malfunctioning monitoring equipment.

The results of all required certification and quality assurance tests of continuous monitoring systems, fuel flow meters, and other instrumentation used to provide data for the GHGs reported under this chapter.

Maintenance records for all continuous monitoring systems, flow meters, and other instrumentation used to provide data for the GHGs reported under this chapter.

[WAC 173-441-050(6), 4/2/14 (S)]

All costs of activities associated with administering the reporting program, as described in RCW 70A.15.2200(2), are fee eligible. The permittee must pay a reporting fee for each year they submit a report to Ecology. [WAC 173-441-110(1), 4/2/14 (S)]

## 5.14 Permit Renewal and Expiration

This permit is issued for a fixed term of five (5) years. The permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted. [WAC 173-401-610, 4/2/14; WAC 173-401-710(3), 4/2/14]

A draft renewal application is due XXX XX, 2026. A complete renewal application is due no later than XX XXX, 2027. Upon receipt of a complete and timely application for renewal, this source may continue to operate subject to final action by BCAA on the renewal application. This protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit by the deadline specified in writing by BCAA, any additional information identified as being needed to process the application. [WAC 173-401-620(2)(j), 11/4/93; WAC 173-401-705(2), 4/2/14; WAC 173-401-710(1), 4/2/14]

The application for renewal shall include the current permit number, the appropriate renewal fee, description of permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term and shall provide a compliance schedule therefore. The application shall be sent to:

Benton Clean Air Agency BCAA at the agency address cited in Condition 3.3.1 under Agency Notification and Recordkeeping.

[WAC 173-401-500(4), 10/17/02; WAC 173-401-510(2), 3/5/16]

Duty to supplement or correct application. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit. [WAC 173-401-500(6), 10/17/02]

#### 5.15 Off-Permit Changes

The source shall be allowed to make changes not specifically addressed or prohibited by the permit terms and conditions without requiring a permit revision, provided that the proposed changes do not weaken the enforceability of the existing permit conditions. Any change that is a Title I modification or is a change subject to the acid rain requirements under Title IV of the FCAA must be submitted as a permit revision.

Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition. Sources must provide contemporaneous written notice to BCAA of each such change. Notification shall be submitted to:

Benton Clean Air Agency BCAA at the agency address cited in Condition 3.3.1 under Agency Notification and Recordkeeping.

Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

The change shall not qualify for the permit shield under WAC 173-401-640.

The permittee shall keep a record describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

A source making a change under WAC 173-400-724 shall comply with applicable preconstruction review requirements established pursuant to RCW 70A.15.2210.

[WAC 173-401-724, 3/5/16]

### 5.16 Changes Not Requiring Permit Revisions

The permittee is authorized to make the changes described in WAC 173-400-722 without a permit revision, providing the following conditions are met:

The proposed changes are not Title I modifications.

The proposed changes do not result in emissions which exceed those allowable under the permit, whether expressed as a rate of emissions, or in total emissions.

The proposed changes do not alter permit terms that are necessary to enforce limitations on emissions from units covered by the permit.

The source provides BCAA with written notification at least seven (7) days prior to making the proposed changes except that written notification of a change made in response to an emergency shall be provided as soon as possible after the event to BCAA at: the agency address cited in Condition 3.3.1 under Agency Notification and Recordkeeping.

The permittee and BCAA shall attach each notice to their copy of the relevant permit.

A Chapter 173-401 WAC source is authorized to make section 502(b)(10) changes without a permit revision.

For each such change, the written notification shall include a brief description of the change within the permitted source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

The permit shield authorized under WAC 173-401-640 shall not apply to any change made pursuant to this paragraph.

A Chapter 173-401 WAC source is authorized to trade increases and decreases in emissions in the permitted source, where the SIP provides for such emissions trades without requiring a permit revision. This provision is available in those cases where the permit does not already provide for such emissions trading.

Written notification shall include such information as may be required by the provision in the Washington SIP authorizing the emissions trade, including at a minimum, when the proposed change will occur, a description of each such change, any change in emissions, the permit requirements with which the source will comply using the emissions trading provisions of the Washington SIP, and the pollutants emitted subject to the emissions trade. The notice shall also refer to the provisions with which the source will comply in the applicable implementation plan and that provide for the emissions trade.

The permit shield described in WAC 173-401-640 shall not extend to any change made under this paragraph. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the applicable SIP authorizing the emissions trade.

Upon the request of the permittee, BCAA shall issue permits that contain terms and conditions, including all terms required under WAC 173-401-600 through 173-401-630 to determine compliance, allowing for the trading of emissions increases and decreases in the WAC 173-401 source solely for the purpose of complying with a federally enforceable emissions cap that is established in the permit independent of otherwise applicable requirements. The permittee shall include in its application proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. The emissions trading provisions shall not be applied to any emissions units for which emissions are not quantifiable or for which there are no replicable procedures to enforce the emissions trades.

The written notification shall state when the change will occur and shall describe the changes in emissions that will result and how these increases and decreases in emissions will comply with the terms and conditions of the permit.

The permit shield described in WAC 173-401-640 shall extend to terms and conditions that allow such increases and decreases in emissions.

A source making a change under WAC 173-400-722 shall comply with applicable preconstruction review requirements established pursuant to RCW 70A.15.2210.

[WAC 173-401-722, 10/17/02]

#### **5.17** Reopening for Cause

Permits shall be reopened and revised under any of the following circumstances:

Additional applicable requirements become applicable to a Chapter 173-401 WAC source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirements. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to WAC 173-401-620(2)(j).

Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

BCAA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

BCAA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

Reopenings under WAC 173-400-730 shall not be initiated before a notice of such intent is provided to the Chapter 173-401 WAC source by BCAA at least thirty (30) days in advance of the date that the permit is to be reopened, except that BCAA may provide a shorter time period in the case of an emergency.

[WAC 173-401-730, 11/4/93]

#### 5.18 New Source Review

The permittee shall not construct new sources or make modifications required to be reviewed under WAC 173-400-110, WAC 173-400-113, WAC 173-400-720, or Chapter 173-460 WAC before the permittee obtains written final approval from BCAA in accordance with those regulations, and pays the cost of public notice described in WAC 173-400-171.

[WAC 173-400-110, 12/29/12; WAC 173-400-113, 12/29/12; WAC 173-400-720, 7/1/16; WAC 173-400-171, 9/16/18; WAC 173-460-040, 12/23/19 (S); RCW 70A.15.2210, 2020 (S)]

### 5.19 Replacement or Substantial Alteration of Emission Control Technology

Prior to replacing or substantially altering emission control technology subject to review under WAC 173-400-114, the permittee shall file for and obtain approval from BCAA according to that regulation.

The permittee shall pay the appropriate fees required by WAC 173-455-100(4) prior to commencing construction.

[WAC 173-455-100(1), 4/2/14 (S); WAC 173-400-114(1), 12/29/12 (S); RCW 70A.15.2220, 2020 (S)]

# 5.20 Nonroad Engines

Prior to installation or operation of a nonroad engine, as defined at WAC 173-400-030(56), the permittee shall meet the requirements of WAC 173-400-035. If the nonroad engine(s) has a cumulative maximum rated brake horsepower greater than 500, a notification of intent to operate will be submitted to BCAA. If the nonroad engine(s) has a cumulative maximum rated break horsepower greater than 2,000, the permittee will not operate the engine(s) unless BCAA issues written approval to operate. [WAC 173-400-035, 9/16/18 (S)]

## 5.21 Demolition and Renovation (Asbestos)

Prior to, during, and after conducting any activity to which 40 CFR 60, Subpart M - National Emission Standard for Asbestos, applies, the permittee shall comply with the requirements of that rule. Such activities include demolition, renovation, asbestos stripping or removal, installing or reinstalling insulation, manufacturing or fabricating certain items, spraying of certain materials, constructing roadways of certain materials, or disposal. [40 CFR 61, Subpart M, 7/1/13; WAC 173-400-075(1), 7/1/16 (S)]

# 5.22 Federal Chlorofluorocarbons (CFC) Requirements (Title VI)

The permittee shall comply with the following standards for recycling and emissions reductions pursuant to 40 CFR 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

Persons conducting maintenance, service, repair, or disposing must follow the prohibitions pursuant to 40 CFR 82.154.

Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156.

Equipment used during the maintenance, service, repair or disposal must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

Persons conducting maintenance, service, repair, or disposing must certify to the Administrator that such person has acquired certified recovery or recycling equipment pursuant to 40 CFR 82.162.

Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166.

Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156.

Owners/operators of appliances normally containing 50 or more pounds of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR 82, Subpart A - Production and Consumption Controls.

If the permittee performs a service on monitor (fleet) vehicles and when this service involves ozone depleting substance refrigerant in the MVAC, the permittee is subject to all applicable requirements as specified in 40 CFR 82, Subpart B - Servicing of Motor Vehicle Air Conditioners.

The permittee shall be allowed to switch from any ozone depleting substance to any alternative that is listed in the Significant New Alternative Program promulgated pursuant to 40 CFR 82, Subpart G - Significant New Alternative Policy Program.

[40 CFR 82; RCW 70A.15.6410, 2020 (S)]

### 5.23 Operational Flexibility

In the event that an emission unit is not operated during a period equal to or greater than the monitoring period designated, no monitoring is required. Recordkeeping and reporting must note the reason why and length of time that the emission unit was not operated. [WAC 173-401-650(1), 11/4/93].

#### 5.24 Compliance Requirements

The permittee shall continue to comply with applicable requirements with which it is currently in compliance.

The permittee shall meet applicable requirements on a timely basis that become effective during the permit term.

### 5.25 Compliance Certification.

The permittee shall submit a certification of compliance with permit terms and conditions (i.e., Sections 3, 4, 5, and 6) at least once per year. At a minimum a certification of compliance is due, for each calendar year, no later than the following February 15<sup>th</sup>. BCAA may require that compliance certifications be submitted more frequently for those emission units not in compliance with permit terms and conditions, or where more frequent certification is specified in the applicable requirement.

The compliance certification shall include the following:

The identification of each term or condition of the permit that is the basis of the certification.

The compliance status.

Whether compliance was continuous or intermittent.

The method(s) used for determining the compliance status of the source, currently and over the reporting period. These methods must be consistent with the permit Monitoring, Maintenance, and Recordkeeping Methods.

Compliance certification shall be submitted to BCAA and EPA Region 10 at:

Benton Clean Air Agency: at the agency address cited in Condition 3.3.1 under Agency Notification and Recordkeeping.

U.S. EPA Region 10 Administrator 1200 Sixth Avenue Seattle, WA 98101

[WAC 173-401-630(5), 3/5/16]

The permittee need not certify compliance for insignificant emission units or activities. [WAC 173-401-530(2)(d), 10/17/02]

For the purpose of submitting compliance certifications or establishing violations, the permittee, shall not preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [40 CFR §60.11(g), 7/1/13]

[WAC 173-401-630(3), 3/5/16; WAC 173-401-510(2)(h)(iii), 3/5/16]

#### 6 <u>COMPLIANCE DECLARATION</u>

### 6.1 Compliance Certification

Facility-wide conditions and associated monitoring, reporting and recordkeeping requirements affecting the Horn Rapids Landfill are contained in Sections 2.1 and 3 of this application. The Horn Rapids Landfill is in compliance with all facility-wide requirements.

Emission unit-specific requirements and associated monitoring, reporting and recordkeeping requirements affecting the Horn Rapids Landfill are contained in Sections 2.2, 2.3, and 3 of this application. The Horn Rapids Landfill is in compliance with all emission unit-specific requirements.

#### 6.2 Compliance Certification Schedule

Horn Rapids Landfill will submit annual compliance certifications as required in Section 5.25 of the application, utilizing forms available from BCAA.

### 6.3 Compliance Plan

#### **6.3.1** Compliance Description

- For each applicable requirement with which an emission unit is in compliance, that emission unit will continue to comply with the applicable requirement.
- For each applicable requirement that will become effective during the term of the air operating permit that does not contain a more detailed schedule, the emissions unit will meet the applicable requirement on a timely basis.
- For each applicable requirement that will become effective during the term of the air operating permit that contains a more detailed schedule, the emissions unit will comply with the applicable requirement on the schedule provided in the applicable requirement.
- For each applicable requirement with which the emission unit is not in compliance, the
  emissions unit will achieve compliance with the applicable requirement by the time the
  air operating permit is issued or Horn Rapids Landfill will provide a compliance schedule
  in accordance with WAC 173-401-630(h)(iii)(C).

#### 6.3.2 Compliance Schedules

Compliance schedules submitted by Horn Rapids Landfill will:

- Include a schedule of remedial measures leading to compliance, including an enforceable sequence of actions and specific dates for achieving milestones and achieving compliance.
- Incorporate the terms and conditions of any applicable consent order, judicial order, judicial consent decree, administrative order, settlement agreement or judgment.

- Be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.
- Provide a schedule for submission to the BCAA of periodic progress reports no less frequently than every six (6) months or at a more frequent period if one (1) is specified in the underlying applicable requirement or by the BCAA.

# 7 INAPPLICABLE REQUIREMENTS

The permittee did not request that any requirements be deemed inapplicable.

## 8 INSIGNIFICANT EMISSION UNITS AND ACTIVITIES

Insignificant emission units are those units which are exempt from some air operating permit (AOP) requirements. While the insignificant emission units listed below are subject to the source-wide applicable requirements specified in Table 2 of the AOP, the permittee is not required to perform testing, monitoring, recordkeeping, or reporting for these units and activities, unless specified by BCAA. BCAA has not required any testing, monitoring, recordkeeping, or reporting for these units. The permittee may certify continuous compliance, for these units and activities, if there were no observed, documented, or known instance of noncompliance during the reporting period. The permit shield, Section 4.1, does not apply to any insignificant emission unit or activity.

# **Table 5 Insignificant Emission Units**

COR				
ID	Equipment/Vehicle Make/Model	Fuel	<b>AOP Status</b>	Reason
2437	2015 Chevy 1/2 Ton 4X4	gasoline	Exempt	WAC 173-401-530(1)(d)
3222	Volvo Rolloff Truck	diesel	Exempt	WAC 173-401-530(1)(d)
3304	Chevy 1-Ton Flatbed	diesel	Exempt	WAC 173-401-530(1)(d)
3320	Volvo Rolloff Truck	diesel	Exempt	WAC 173-401-530(1)(d)
3353	2020 International Water Truck	diesel	Exempt	WAC 173-401-530(1)(d)
4105	Drop Box Transfer Trailer	n/a	Exempt	WAC 173-401-530(1)(d)
6565	1445 John Deere 6' Mower	diesel	Exempt	WAC 173-401-532(10)
6572	Ag-Rain Water Reel	n/a	Exempt	WAC 173-401-530(4)
6587	2013 JD Gator XUV855D ATV	diesel	Exempt	WAC 173-401-532(10)
6588	John Deere XUV855D ATV	diesel	Exempt	WAC 173-401-532(10)
6602	2016 Silver Eagle VAST20W Dolley	n/a	Exempt	WAC 173-401-530(4)
6613	2017 KPI-JCI Radial Stacker	diesel	Exempt	WAC 173-401-533(2)(g)
7104	Caterpiller CH35 Challenger (attachment #6337)	diesel	Exempt	WAC 173-401-532(10)
7127	Hyster 135 XL Fork Lift	diesel	Exempt	WAC 173-401-532(10)
7138	Caterpiller 826H	diesel	Exempt	WAC 173-401-532(10)
7139	Kincaid Pro Series 1200 Trailer Mounted Hydroseeder	diesel	Exempt	WAC 173-401-533(2)(g)
7142	John Deere 724J Loader	diesel	Exempt	WAC 173-401-532(10)
7143	2009 Peterson 2700C Wood Grinder	diesel	Exempt	WAC 173-401-532(10)
7149	Komptech Primus Trommel Screen	diesel	Exempt	WAC 173-401-533(2)(g)
7150	2013 MGL Power Stacker	n/a	Exempt	WAC 173-401-533(2)(g)
7157	2017 John Deere Excavator 210G	diesel	Exempt	WAC 173-401-532(10)
7162	Caterpiller 826K Compactor	diesel	Exempt	WAC 173-401-532(10)
7163	2020 Caterpiller D6XELGP Dozer	diesel	Exempt	WAC 173-401-532(10)
7167	2020 Caterpiller 735 Articulated Truck	diesel	Exempt	WAC 173-401-532(10)
	Honda EB10000 generator	gasoline	Exempt	WAC 173-401-533(2)(f)
	Dewalt DG2900generator	gasoline	Exempt	WAC 173-401-533(2)(f)
	Power washer, Honda GX340 engine	gasoline	Exempt	WAC 173-401-533(2)(f)
	Honda EZ250 generator	gasoline	Exempt	WAC 173-401-533(2)(f)
	Briggs & Stratton GenPower 10 hp Engine	gasoline	Exempt	WAC 173-401-533(2)(f)
	Northstar generator	gasoline	Exempt	WAC 173-401-533(2)(f)
	Stihl blowers & weed trimmers	gas/oil mix	Exempt	WAC 173-401-533(2)(f)
	Diesel (off-road) Storage tank, 5,000 gal		Exempt	WAC 173-401-533(2)(c)

COR				
ID	Equipment/Vehicle Make/Model	Fuel	<b>AOP Status</b>	Reason
	Diesel (off-road) Storage tank, 500 gal		Exempt	WAC 173-401-533(2)(c)
	Diesel (on-road) Storage tank, 500 gal		Exempt	WAC 173-401-533(2)(c)
	Gasoline storage tanks, portable cans, 20 gal. total		Exempt	WAC 173-401-533(2)(c)
	Welding activities, up to three 7018 rods per month		Exempt	WAC 173-401-533(2)(i)