



DIVISION OF ENVIRONMENTAL QUALITY

Sarah Huckabee Sanders
GOVERNOR

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SECRETARY

July 28, 2025

Via email to: james.mathis@ashgrove.com
summer.grimes@ashgrove.com & First Class Mail

Alex Mathis
Environmental & Hazardous Waste Manager
Ash Grove Cement Company
4343 Highway 108
Foreman, AR 71836

Re: Notice of Final Permitting Decision; Permit No. 0075-AOP-R26

Dear Mr. Mathis,

After considering the application and other applicable materials as required by APC&EC Rule 8.211 and Ark. Code Ann. § 8-4-101 *et seq.*, this notice of final permitting decision is provided for:

Ash Grove Cement Company
4343 Highway 108
Foreman, AR 71836

Permit Number: 0075-AOP-R26

Permitting Decision: approval with permit conditions as set forth in final Permit No. 0075-AOP-R26

Accessing the Permitting Decision:
<https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/Air/0075-AOP-R26.pdf>.

Accessing the Statement of Basis:
<https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/Air/0075-AOP-R26-SOB.pdf>.

Rule 26.903 of the Rules of the Arkansas Operating Air Permit Program do not require a public notice or public comment period for Administrative Amendments.

Sincerely,

A handwritten signature in dark ink, appearing to read "Demetria Kimbrough", written in a cursive style.

Demetria Kimbrough
Deputy Director, Office of Air Quality, Division of Environmental Quality
5301 Northshore Drive, North Little Rock, AR 72118-5317

Enclosure: Certificate of Service
cc: jjech@trinityconsultants.com

CERTIFICATE OF SERVICE

I, Natasha Oates, hereby certify that the final permit decision notice has been mailed by first class mail to Ash Grove Cement Company, 4343 Highway 108, Foreman, AR, 71836, on this 28th day of July, 2025.

Natasha Oates

Natasha Oates, AA, Office of Air Quality



DIVISION OF ENVIRONMENTAL QUALITY

OPERATING AIR PERMIT

PERMIT NUMBER: 0075-AOP-R26

IS ISSUED TO:

Ash Grove Cement Company
4343 Highway 108
Foreman, AR 71836
Little River County
AFIN: 41-00001

PURSUANT TO THE RULES OF THE ARKANSAS OPERATING AIR PERMIT PROGRAM, RULE 26: THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

August 15, 2023 AND August 14, 2028

THE PERMITTEE IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

A handwritten signature in dark ink, appearing to read "Demetria Kimbrough", is written over a horizontal line.

Demetria Kimbrough
Deputy Director, Office of Air Quality
Division of Environmental Quality

July 28, 2025

Date

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Appendix F: 40 C.F.R. § 60 Subpart Y

Appendix G: 40 C.F.R. § 60 Subpart OOO

Appendix H: 40 C.F.R. § 60 Subpart IIII

Appendix I: 40 C.F.R. § 61 Subpart FF

Appendix J: 40 C.F.R. § 63 Subpart DD

Appendix K: 40 C.F.R. § 63 Subpart EEE

Appendix L: 40 C.F.R. § 63 Subpart LLL

Appendix M: Road Watering Volumes Requirements by Road Section

Appendix N: Summary of HWC MACT Operating Parameter Limits for Ash Grove Foreman

Appendix O: 40 C.F.R. § 63 Subpart G

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Appendix Q: 40 C.F.R. § 63 Subpart PP

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List of Acronyms and Abbreviations

Ark. Code Ann.	Arkansas Code Annotated
AFIN	Arkansas DEQ Facility Identification Number
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
HAP	Hazardous Air Pollutant
Hp	Horsepower
lb/hr	Pound Per Hour
NESHAP	National Emission Standards (for) Hazardous Air Pollutants
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO _x	Nitrogen Oxide
NSPS	New Source Performance Standards
PM	Particulate Matter
PM ₁₀	Particulate Matter Equal To Or Smaller Than Ten Microns
PM _{2.5}	Particulate Matter Equal To Or Smaller Than 2.5 Microns
SNAP	Significant New Alternatives Program (SNAP)
SO ₂	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

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SECTION I: FACILITY INFORMATION

PERMITTEE:	Ash Grove Cement Company
AFIN:	41-00001
PERMIT NUMBER:	0075-AOP-R26
FACILITY ADDRESS:	4343 Highway 108 Foreman, AR 71836
MAILING ADDRESS:	4343 Highway 108 Foreman, AR 71836
COUNTY:	Little River County
CONTACT NAME:	Alex Mathis
CONTACT POSITION:	Environmental & Hazardous Waste Manager
TELEPHONE NUMBER:	(870) 542-3032
REVIEWING ENGINEER:	Elliott Marshall
UTM North South (Y):	Zone 15: 3729281.26 m
UTM East West (X):	Zone 15: 368114.75 m

SECTION II: INTRODUCTION

Summary of Permit Activity

Ash Grove Cement Company (AFIN: 41-00001) operates a portland cement plant located at 4457 Hwy 108 West in Foreman, Arkansas 71836. This application was submitted as a modification to revise emission limits for SN-04F.TX1 in the emission summary table and Specific Conditions #WDF-1 and #WDF-2 to reflect potential emissions from the 6.5 MMBtu/hr thermal oxidizer (TOU) and include natural gas combustion emissions. Facility permitted emission rates are increasing by 0.2 tpy PM/PM₁₀, 18.3 tpy VOC, 6.4 tpy CO, 1.5 tpy NO_x and 0.09 tpy Total HAPs.

Process Description

Cement manufacturing involves chemical and physical processing of raw materials. The raw materials used include sources of calcium, silica, alumina, and iron. These are the components necessary for the manufacture of the cement components dicalcium silicate, tricalcium silicate, tricalcium aluminate, and tetra-calcium aluminoferrite. The raw feed is prepared for use in the kiln system by sizing, grinding, and blending the various raw materials to produce the necessary mix for quality production. The prepared raw feed is introduced to the kiln system where it is physically and pyro-chemically transformed into cement clinker, the intermediate product of portland cement. The raw materials are exposed to air temperatures reaching up to 3,500°F through a countercurrent process in the pyroprocessing system (the rotary kiln and the preheater/precalciner tower components constitute the pyroprocessing system). The raw materials are heated to approximately 2,700°F, the temperature required to produce the chemical reactions necessary to produce quality clinker.

The carbonate source in the raw material kiln feed is limestone. It is surface mined on-site, crushed, and transported by belt conveyor from the quarry to the raw material storage building in the processing portion of the facility. Other raw materials that are sources of iron, aluminum and silica are imported by the facility and temporarily stored in the raw material storage building. These materials are then transferred into material-specific storage bins. From the bins, they are metered onto a belt in specific proportions and sent to the vertical roller mill. The roller mill pulverizes the raw materials into a "meal" that is collected by the process cyclones and baghouse and conveyed to the kiln feed blending and storage silo. From the blending silo, the raw meal is introduced into the pyroprocessing system.

The equipment the facility uses allows the company to burn a variety of fuels. Fuels the company burns include fossil fuels, energy bearing on-site and off-site generated byproducts, nonhazardous wastes, and hazardous wastes. Examples of fuels include but are not limited to coal, petroleum coke, natural gas, fuel oil, used oils from both on and off site sources, tires, waste tires, nonhazardous waste fuels, liquid waste derived fuels (LWDF), solid waste derived fuels (SWDF), bulk waste derived fuels (BWDF). Fossil fuels are typically used during startup and shutdown.

AGC utilizes non-hazardous waste materials as raw material substitutes for silica, alumina, and iron. These items are received at the plant by truck and rail. The following table contains examples of non-hazardous raw material substitutes.

Examples of Non-Hazardous Raw Material Substitutes

Calcium agents	Industrial lime, carbide slurry	Lime slurry, drinking water slurry, slurry thinners
Silica agents	Used foundry sand	Micro silica
Iron agents	Roasted pyrites, red mud, converter dust, iron slag, steel slag	Synthetic hematite, tin slag mill scale
Silica, alumina, calcium agents	Fly ash slag	Fluidized bed ash, residues from natural stone working
Gypsum agents (for cement)	Desulphogypsum	Chemical gypsum

The following table contains examples of non-hazardous fuel substitutes.

Examples of Non-Hazardous Raw Fuel Substitutes

Solid		Liquid	Gaseous
Paper wastes	Wood wastes	Tar	Landfill gas Pyrolysis gas
Wastes from the paper industry	Rice chaff	Used oil	
Petroleum coke	Olive kernels	Glycerine	
Graphite dust	Coconut shells	Biodiesel and ethanol	
Charcoal	Household refuse	Production off-spec and waste products	
Plastic residues	Refuse-derived fuel	Tallow, grease, rendering wastes	
Rubber residues	Automobile “fluff”	Distillation residues	
Paper plant manufacture waste	Plastic fuel tanks	Waste suspensions	
Paper mill wastewater treatment residual	Oil-bearing soil	Asphalt slurry	
Battery cases	Sewage sludge	Oil sludge	
Activated bentonite	Meat and bone meal	Oil, gas & petroleum industry wastes and tank dropouts	
Used industrial sorbents	Oil, gas & petroleum industry		

Solid		Liquid	Gaseous
	wastes and tank dropouts		

The preheater/precalciner (PH/PC) pyroprocessing system features a five-stage cyclone-type preheater string, low-NO_x precalciner (with a combustion chamber), and rotary kiln. The low-NO_x PH/PC portion of the system is located in a tower adjacent to the kiln.

The PH/PC is responsible for a targeted 95% of the calcination that occurs in the process. Energy and fuel usage in the kiln is reduced because the multistage preheater allows raw meal to be suspended in the gas stream, increasing the surface area for heat transfer, before entering the kiln. Efficiency is further increased with the recycle of hot exhaust gases from the clinker cooler and tower to be used to heat the raw mill and coal mill, respectively. These mills use the hot gases to dry the materials being pulverized; then the gases pass through a baghouse and are vented to the main stack.

This means there is no baghouse or stack on the clinker cooler. The recycled air from the front half the cooler is tertiary air that provides combustion air to the precalciner and the air from the back half of the cooler is exhaust air that flows to the raw mill. Tertiary air flows through the tower and out the downcomer before entering the coal mill. The coal mill system has a baghouse that is comingled with the main stack. After flowing through the raw mill the air enters the main baghouse and exits from the main stack.

The raw material building from the decommissioned long wet kiln process has been converted to store coal, petroleum coke, limestone, and gypsum. A coal silo and coal mill has been constructed for the PH/PC kiln system. The equipment designated for handling, storing, and milling coal is also used for petroleum coke and other similar alternate fuels. An emergency generator has been installed to power key process and environmental equipment during power outages.

The exhaust gas from a kiln system is comprised of combustion by-products, cement kiln dust (CKD), alkali salts, carbon dioxide, water vapor, and excess air. The main exhaust gases exit from the top of the preheater tower and pass through the in-line raw mill and main air pollution control device (APCD) before being emitted through a single stack. Bypass gases exit the feed end of the rotary kiln prior to the precalciner and are conditioned by a separate bypass system APCD, then vented through the main kiln stack. The purpose of an alkali/chlorine bypass is to remove volatile salts and other impurities from the pyroprocessing system, thereby preventing their buildup in the kiln system and in the product. Low alkali product is critical since it is required for Arkansas Department of Transportation contracts.

The Lime Injection System project is to provide an engineered solution for the storage, extraction, and accurate feeding of dry “hydrated” lime into the existing kiln feed system. Hydrated lime is delivered into a steel storage silo via pneumatic pumps. A dust collector and VFD controlled fan/motor combination will handle nuisance dust emissions. The hydrated lime

is discharged into a weigh bin through a manual knife gate and a pneumatically controlled butterfly valve. It is then aerated to promote material flow before it exits the bin through a variable frequency drive controlled rotary metering feeder and then into a vent hopper. Nuisance dust is handled via a 2" dedusting line from the vent hopper to be tied into the weigh bin dedusting line. The weigh bin is vented to the top of the silo roof via a dedusting line. Hydrated lime exits the vent hopper through a fixed speed rotary feeder into a material injection pickup tee. Two blowers (one operating, one standby) provide conveying air which passes through the injection tees to transport the hydrated lime. This conveying line carries the material to a material alleviator to separate the conveying air from the hydrated lime. The material exits the alleviator through a rotary feeder into the existing kiln feed air slide where it will be transported to the existing kiln feed bucket elevator for distribution into the preheater tower feed system. The conveying air volume is vented to the existing 442.BF10 bag filter via a 20" vent hood on top of the alleviator.

CKD is inherently generated as a by-product of the cement production process. CKD is finely ground and partially calcined raw feed that becomes entrained in the combustion gases due to the high velocity of the gas and the tumbling motion of the material in the kiln system. The particles consist of raw materials, partially calcined material (lime), and volatile inorganic salts (e.g., sodium and potassium chloride and sodium and potassium sulfate). CKD is collected in the main and bypass baghouses. The bypass CKD is pneumatically conveyed to storage silos, and then removed by truck for beneficial use or disposal. All CKD disposed on-site is wetted using irrigation or spraying methods prior to disposal. The dust collected in the main baghouse is reintroduced to the preheater tower as part of the kiln feed inlet stream. As an option, some of the dust from the main baghouse can be transported from the kiln tank to the bypass baghouse, where it is removed from the system.

The cooled clinker is processed in the clinker grinding system. The clinker grinding system is comprised of two ball mills and a vertical cement mill, material bins and feeders, separators for each mill including a high-efficiency separator for the vertical mill, dust collectors, and material handling equipment. The clinker is mixed with gypsum, chalk, and/or other additives, and then ground into portland cement. The finished product is conveyed into storage silos and subsequently loaded into trucks and railcars for shipment to customers.

AGC holds a RCRA treatment storage and disposal permit. The RCRA permit covers the material handling systems, container storage units, treatment systems, and various activities associated with the RCRA operations for the hazardous waste operations. The related activity is described and covered in the application.

Portable Crushing System

There are times when clinker (the intermediate material in making Portland cement) is stored outside and exposed to the elements. Clinker is generated from the preheater precaliner kiln system. This material is recovered very slowly as a partial contribution to the cement mills. It is exposed to the weather and aggregates into large chunks that are difficult to handle. Foreman does not intend to store clinker outside but small amounts of spillage and off-spec material will

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go outside for recycling back into the system. If the material can be crushed all of the clinker can be economically recovered.

In addition, small amounts of used refractory brick are generated during an annual outage where new refractory are installed in the kiln. This material can be used as raw material for kiln feed. However, the brick cause mechanical problems with bucket elevators because of the brick size. If this material is crushed and placed on the raw material pile, it can be easily handled with all of the material handling equipment.

As clinker is crushed it is fed to an existing hopper permitted in the Title V air permit. The crushed refractory brick are directed to the material storage pile in the Raw Material Storage building (MSB) when the brick are crushed.

The crushing operation will be only periodic as the crusher and belt are rental equipment. The equipment consists of a Powerscreen Metro Trak HA jaw crusher powered by a 500 HP diesel engine. The equipment will not be on site when not in operation.

Outside Iron Source Pile

Mill scale is the current iron source for the manufacture of clinker which is the intermediate material used in the making of Portland cement. Because of fluctuations of the market for this material, an outside storage pile is used to handle anticipated larger inventories of material than the Material Storage Building can handle. The size of the pile will fluctuate because the preferable storage is inside the building to avoid getting the material wet. The area requested for the pile should be adequate for any inventory that cannot be stored inside the building.

Crossover Baghouse Additions

The Crossover area handles transport of Clinker from several sources to the cement roller mills. The clinker can be transported directly from the kiln via conveyors or the storage dome or the outside off-spec clinker pile to one of several clinker silos that would feed the cement roller mills. In an effort to improve this process, Ash Grove has added two small dust collectors.

Rules and Regulations

The following table contains the rules and regulations applicable to this permit.

Rules and Regulations
Arkansas Air Pollution Control Code, Rule 18, effective March 14, 2016
Rules of the Arkansas Plan of Implementation for Air Pollution Control, Rule 19, effective May 6, 2022
Rules of the Arkansas Operating Air Permit Program, Rule 26, effective March 14, 2016

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Rules and Regulations
40 C.F.R. § 52.21, Regulations for the Prevention of Significant Deterioration of Air Quality
40 C.F.R. § 60 Subpart F, <i>Standards of Performance for Portland Cement Plants</i> (Compliance with this subpart is demonstrated by compliance with NESHAPs Subpart LLL and Subpart EEE)
40 C.F.R. § 60 Subpart Kb, <i>Standards of Performance for Volatile Organic Liquid Storage Vessels(Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification commenced After July 23, 1984</i>
40 C.F.R. § 60 Subpart Y, <i>Standards of Performance for Coal Preparation Plants</i>
40 C.F.R. § 60 Subpart OOO, <i>Standards of Performance for Nonmetallic Mineral Processing Plants</i>
40 C.F.R. § 60 Subpart IIII, <i>New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines</i>
40 C.F.R. § 61 Subpart FF, <i>National Emission Standards for Benzene Waste Operations</i>
40 C.F.R. § 63 Subpart G, <i>National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater</i>
40 C.F.R. § 63 Subpart DD, <i>National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations</i>
40 C.F.R. § 63 Subpart XX, <i>National Emissions Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations</i>
40 C.F.R. § 63 Subpart LLL, <i>National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry</i>
40 C.F.R. § 63 Subpart PP, <i>National Emission Standards for Containers</i>
40 C.F.R. § 63 Subpart EEE, <i>National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors</i>
40 C.F.R. § 63 Subpart ZZZZ, <i>National Emission Standards for Hazardous Air Pollutants From Stationary Reciprocating Internal Combustion Engines</i>

Emission Summary

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	183.1	338.9
		PM ₁₀	406.6	664.7
		SO ₂	620.2	2704.4
		VOC	99.1	268.2
		CO	2509.2	1737.4
		NO _x	688.3	2989.1
HAPs		1,1,1-Trichloroethane*	59.02 ³	205.46 ³
		1,1,2,2-Tetrachloroethane*		
		1,1,2-Trichloroethane*		
		1,1-Dichloroethane*		
		1,2,4-Trichlorobenzene*		
		1,2-Dichloroethane*		
		1,2-Dichloropropane*		
		1,3-Dichloropropene*		
		1,4-Dichlorobenzene*		
		1,4-Phenylenediamine*		
		2,4,5-Trichlorophenol*		
		2,4,6-Trichlorophenol*		
		2,4-Dinitrophenol*		
		2,4-Dinitrotoluene*		
		3,3'-Dichlorobenzidine*		
		4,4'-Methylenedianiline*		
		4-Aminobiphenyl*		
		4-Nitrobiphenyl*		
		4-Nitrophenol*		
		Acrylonitrile*		
		Allyl Chloride*		
		Aniline*		
		Benzene*		
		Benzidine*		
		bis(2-Chloroethyl) ether*		

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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		bis(2-Ethylhexyl) phthalate* Bromoform* Bromomethane* Carbon disulfide* Carbon tetrachloride* Chlorobenzene* Chloroform* Chloromethane* Cumene* Diethanolamine* Dimethyl phthalate* Ethyl Acrylate* Ethylbenzene* Ethylene Glycol* Hexachlorobenzene* Hexachlorobutadiene* Hexachlorocyclopentadiene* Hexachloroethane* Hydroquinone* Iodomethane* Isophorone* Methyl Methacrylate* Methyl tert-butyl ether* Methylene chloride Napthalene* n-Hexane* Nitrobenzene* o-Anisidine* o-Toluidine* Pentachloronitrobenzene* Pentachlorophenol* Phenol* Styrene* Toluene* Vinyl acetate* Vinyl Bromide* Vinyl chloride* Xylene*		
		Dioxin/Furan*	2.93E-07	1.30E-06

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		HCl	95.15	416.76
		Chlorine		
		Arsenic*	0.04	0.18
		Beryllium*	0.04	0.18
		Cadmium*	0.14	0.58
		Chromium*	0.04	0.18
		Lead*	0.14	0.58
		Mercury*	0.09	0.39
		Antimony*	27.3	119.3
		Cobalt*		
Manganese*				
Nickel*				
Selenium*				
Total Other HAP*, 3		0.52	1.64	
Air Contaminants**		Ammonia	78.0	164.0
326.CH22	Raw Meal	PM	0.1	0.1
		PM10	0.1	0.1
326.CH26	Chute Transfer Point (326.DG20 to waste)	PM	0.4	1.6
		PM10	0.2	0.6
403.CHM	Chute, Truck Loading of CKD	PM	0.1	0.1
		PM10	0.1	0.1
403.CHR	Chute, CKD Truck Loadout	PM	0.1	0.1
		PM10	0.1	0.1
403.CHU	Chute, Truck Loading of CKD	PM	0.1	0.1
		PM10	0.1	0.1
443.CH56	Loading Spout Transfer Point (443.CH56 to collection bin 451.XA970)	PM	0.1	0.1
		PM10	0.1	0.1
443.CH46	Chute Transfer Point (443.SC40 to 331.XA970)	PM	0.1	0.1
		PM10	0.1	0.1
449.CH30	Chute Transfer Point (449.DM1 to 449.BC05)	PM	0.5	1.9
		PM10	0.2	0.7
449.CH31	Chute Transfer Point (449.DM1 to 449.BC05)	PM	0.5	1.9
		PM10	0.2	0.7
449.CH32	Chute Transfer Point (449.DM1 to 449.BC05)	PM	0.5	1.9
		PM10	0.2	0.7

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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
449.CH33	Chute Transfer Point (449.DM1 to 449.BC05)	PM	0.5	1.9
		PM ₁₀	0.2	0.7
449.CH42	Duct Transfer Point (449.BC10 to 409.DB1, 409.DB2)	PM	0.4	1.7
		PM ₁₀	0.2	0.6
449.HP2	Hopper, Outside Clinker Reclaim	PM	0.4	0.1
		PM ₁₀	0.2	0.1
449.HP4	Transfer, Hopper to clinker reclaim chute	PM	0.1	0.1
		PM ₁₀	0.1	0.1
449.T7	Transfer, end loader to crusher	PM	0.3	1.3
		PM ₁₀	0.2	0.5
449.T8	Transfer, from crusher to belt	PM	0.3	1.3
		PM ₁₀	0.2	0.5
533.LS10	Transfer from off-spec Clinker Bin 511.BI100 through Loading Spout 511.LS150 to Truck	PM	2.2	1.1
		PM ₁₀	0.8	0.4
534.CH12	Chute Transfer Point (534.DG20 to waste bin)	PM	0.2	0.5
		PM ₁₀	0.1	0.2
311.CHA	Tripper Discharge into Bins	PM	0.6	2.4
		PM ₁₀	0.2	0.9
44C.BF10	Dust Collector, Pulverized Fuel Bin Vent	PM	0.1	0.1
		PM ₁₀	0.1	0.1
44M.BF10	Lime Injection System Baghouse	PM	0.1	0.2
		PM ₁₀	0.1	0.2
326.BF10	Dust Collector, Raw Mill Feed System	PM	0.4	1.6
		PM ₁₀	0.4	1.6
326.BF30	Dust Collector, Raw Mill Rejects	PM	0.3	1.1
		PM ₁₀	0.3	1.1
327.BF10	Dust Collector, Raw Material Airslide	PM	0.1	0.3
		PM ₁₀	0.1	0.3
327.BF20	Dust Collector, Raw Material Airslide	PM	0.2	0.7
		PM ₁₀	0.2	0.7
327.BF30	Dust Collector, Raw Material Airslide	PM	0.2	0.8
		PM ₁₀	0.2	0.8
329.BF10	Dust Collector, High Grade Limestone Bin	PM	0.2	0.5
		PM ₁₀	0.2	0.5

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			lb/hr	tpy
329.BF20	Dust Collector, Alleviator	PM	0.2	0.5
		PM ₁₀	0.2	0.5
403.BF3	Dust Collector, 500 Ton Silos	PM	0.3	1.3
		PM ₁₀	0.3	1.3
403.BF4	Dust Collector, 1500 Ton Silo	PM	0.5	1.9
		PM ₁₀	0.5	1.9
403.BF6	Dust Collector, 1500 Ton Silo	PM	0.4	1.6
		PM ₁₀	0.4	1.6
403.BF7	Dust Collector, Truck Loadout DC-61	PM	0.2	0.7
		PM ₁₀	0.2	0.7
403.BF8	Dust Collector, 500 Ton Silos	PM	0.3	1.3
		PM ₁₀	0.3	1.3
409.BF10	Cross Over Baghouse # 1	PM	0.1	0.2
		PM ₁₀	0.1	0.2
442.BF10	Dust Collector, Kiln Feed Airslide	PM	0.2	0.7
		PM ₁₀	0.2	0.7
442.BF20	Dust Collector, Kiln Feed System	PM	0.2	0.5
		PM ₁₀	0.2	0.5
443.BF20	Dust Collector, Cement Kiln Dust Bin	PM	0.1	0.4
		PM ₁₀	0.1	0.4
449.BF10	Dust Collector, Clinker Cooler Discharge	PM	0.2	0.5
		PM ₁₀	0.2	0.5
449.BF15	Dust Collector, Clinker – Loader to 449.HP2 Hopper	PM	0.1	0.3
		PM ₁₀	0.1	0.3
449.BF20	Dust Collector, Clinker Bin Vents	PM	0.4	1.4
		PM ₁₀	0.4	1.4
449.BF30	Dust Collector, Clinker Reclaim Elevator	PM	0.2	0.5
		PM ₁₀	0.2	0.5
449.BF31	Cross Over Baghouse # 2	PM	0.1	0.2
		PM ₁₀	0.1	0.2
449.BF40	Dust Collector, Clinker Dome Vent	PM	0.2	0.9
		PM ₁₀	0.2	0.9
449.BF50	Dust Collector, Clinker Reclaim Conveyor Transfer	PM	0.2	0.8
		PM ₁₀	0.2	0.8
449.BF60	Dust Collector, Clinker Reclaim Conveyor Transfer	PM	0.2	0.6
		PM ₁₀	0.2	0.6

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			lb/hr	tpy
449.BF70	Dust Collector, Clinker Reclaim Conveyor Transfer	PM PM ₁₀	0.2 0.2	0.9 0.9
513.BF1	Dust Collector, Outside Clinker Bins Discharge	PM PM ₁₀	0.2 0.2	0.8 0.8
514.BF1	Dust Collector on Bin #44	PM PM ₁₀	0.3 0.3	0.9 0.9
514.BF2	Dust Collector, #2 Finish Mill	PM PM ₁₀	0.7 0.7	3.0 3.0
514.BF3	Dust Collector, #2 Finish Mill Discharge Baghouse	PM PM ₁₀ VOC Ethylene Glycol* Diethanolamine*	0.5 0.5 4.0 0.12 1.19	2.0 2.0 3.8 0.11 1.14
521.BF1	Dust Collector, West Clinker Silo Dust Collector	PM PM ₁₀	0.6 0.6	2.6 2.6
521.BF2	Dust Collector, East Clinker Silo Dust Collector	PM PM ₁₀	0.6 0.6	2.6 2.6
523.BF2	Dust Collector, Clinker Receiving	PM PM ₁₀	0.7 0.7	3.0 3.0
524.BF1	Dust Collector, #4 Finish Mill Discharge Baghouse	PM PM ₁₀ VOC Ethylene Glycol* Diethanolamine*	1.0 1.0 4.0 0.12 1.19	4.2 4.2 12.4 0.37 3.71
524.BF2	Dust Collector, #4 Finish Mill Baghouse	PM PM ₁₀	1.5 1.5	6.6 6.6
531.BF10	Dust Collector, Limestone/Gypsum Belt Discharge	PM PM ₁₀	0.2 0.2	0.7 0.7
531.BF20	Dust Collector, Limestone/Gypsum Bin Vents	PM PM ₁₀	0.4 0.4	1.7 1.7
533.BF10	Dust Collector, Finish Mill Feed Bins Discharge	PM PM ₁₀	0.3 0.3	1.2 1.2
533.BF20	Dust Collector,	PM	0.1	0.3

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			lb/hr	tpy
	Finish Mill Feed Bin Loadout	PM ₁₀	0.1	0.3
534.BF10	Dust Collector, Finish Mill Feed System	PM	0.5	2.2
		PM ₁₀	0.5	2.2
534.BF20	Dust Collector, Finish Mill Recirculation System	PM	0.3	1.1
		PM ₁₀	0.3	1.1
535.BF10	Dust Collector, Finish Mill Discharge	PM	1.1	4.8
		PM ₁₀	1.1	4.8
		VOC	36.1	15.6
		Ethylene Glycol*	1.08	0.47
		Diethanolamine*	10.82	4.66
535.BF20	Bag Filter, Pneumatic Conveying to Storage	PM	0.1	0.3
		PM ₁₀	0.1	0.3
611.BF1	Dust Collector, Rail Silos DC#24	PM	0.5	2.1
		PM ₁₀	0.5	2.1
611.BF3	Dust Collector, East Rail Load Out Spout	PM	0.2	0.6
		PM ₁₀	0.2	0.6
611.BF4	Dust Collector, East Rail Load Out Spout Alternate	PM	0.2	0.6
		PM ₁₀	0.2	0.6
611.BF10	Dust Collector, Silos 19 and 20 Discharge to Elevator	PM	0.2	0.7
		PM ₁₀	0.2	0.7
611.BF20	Dust Collector, Elevator Discharge	PM	0.2	0.9
		PM ₁₀	0.2	0.9
611.BF30	Dust Collector, Outside Cement Loading to Rail	PM	0.1	0.3
		PM ₁₀	0.1	0.3
611.BF40	Dust Collector, Rail Loadout Bin	PM	0.1	0.3
		PM ₁₀	0.1	0.3
611.UL10	Dust Collector, Rail-to-Truck	PM	0.1	0.3
		PM ₁₀	0.1	0.3
612.BF1	Dust Collector, Top #6 Kaiser Silos DC #21	PM	0.5	2.1
		PM ₁₀	0.5	2.1
612.BF2	Dust Collector Top #1 & #2 Kaiser Silo	PM	0.2	0.8
		PM ₁₀	0.2	0.8
612.BF3	Dust Collector, Top #5 Kaiser Silos DC #22	PM	0.2	0.7
		PM ₁₀	0.2	0.7

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			lb/hr	tpy
612.BF4	Dust Collector, Top #11 Kaiser Silos DC #30	PM	0.2	0.7
		PM ₁₀	0.2	0.7
612.BF5	Dust Collector, Top OF Packhouse DC #26	PM	0.7	3.0
		PM ₁₀	0.7	3.0
621.BF1	Dust Collector, Top of #15 Delta Silo DC #23	PM	0.6	2.5
		PM ₁₀	0.6	2.5
621.BF2	Dust Collector, #1 through #4 Bins, South Truck Loadout DC #28	PM	0.5	1.9
		PM ₁₀	0.5	1.9
621.BF3	Dust Collector, South Truck Loadout #1 through #4 Bins DC #31/32	PM	0.2	0.8
		PM ₁₀	0.2	0.8
621.BF5	Dust Collector, Top of #26 & #27 Truck Loadout DC #49	PM	0.7	3.0
		PM ₁₀	0.7	3.0
621.BF6(E)	North Truck Loadout Spout #27 Dust Collector	PM	0.1	0.4
		PM ₁₀	0.1	0.4
621.BF7(W)	North Truck Loadout Spout #26 Dust Collector	PM	0.1	0.4
		PM ₁₀	0.1	0.4
621.BF8	South Truck Loadout Dust Collector #5 Bin	PM	0.2	0.9
		PM ₁₀	0.2	0.9
621.BF9	Delta Silos Pump Hopper Baghouse	PM	0.1	0.3
		PM ₁₀	0.1	0.3
631.BF10	Dust Collector, East Truck Load Silo 1	PM	0.3	1.2
		PM ₁₀	0.3	1.2
631.BF15	Dust Collector, West Truck Load Silo 2	PM	0.3	1.2
		PM ₁₀	0.3	1.2
631.BF20	Dust Collector, South Load Out Spout	PM	0.1	0.4
		PM ₁₀	0.1	0.4
631.BF25	Dust Collector, Central Load Out Spout	PM	0.1	0.4
		PM ₁₀	0.1	0.4
631.BF30	Dust Collector, North Load Out Spout	PM	0.1	0.4
		PM ₁₀	0.1	0.4
311.CH1	Chute, Secondary Crusher Discharge	PM	0.1	0.2
		PM ₁₀	0.1	0.1

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
311.CH10	Chute, Limestone Hopper to 311.AF6	PM	0.1	0.1
		PM ₁₀	0.1	0.1
311.CH11	Chute, 311.AF6 to Belt Conveyor 311.BC1	PM	0.1	0.1
		PM ₁₀	0.1	0.1
311.CH15	Chute, Gypsum Hopper to 311.AF5	PM	0.1	0.1
		PM ₁₀	0.1	0.1
311.CH16	Chute, 311.AF5 to Belt Conveyor 311.BC1	PM	0.1	0.1
		PM ₁₀	0.1	0.1
311.CHC	Chute, Discharge into Secondary Crusher	PM	0.1	0.2
		PM ₁₀	0.1	0.1
41A.T10	Transfer, Rail and Truck Unloading into 41A.HP10	PM	1.0	0.2
		PM ₁₀	0.4	0.1
44A.T10	Transfer, Loader Unloading into Hopper 44A.HP10	PM	0.6	0.2
		PM ₁₀	0.2	0.1
403.T2	Transfer, Trailer Unloading of CKD	PM	0.1	0.1
		PM ₁₀	0.1	0.1
449.T4	Transfer, Loader to 449.HP2	PM	0.4	0.1
		PM ₁₀	0.2	0.1
449.T5	Transfer, clinker discharge to ground	PM	1.1	0.5
		PM ₁₀	0.5	0.3
449.T6	Transfer, Loader to clinker chute hopper	PM	0.7	0.5
		PM ₁₀	0.4	0.3
449.T16	Transfer, Truck Unloading Crusher Pile	PM	5.5	0.6
		PM ₁₀	1.9	0.2
211.BF1	Dust Collector, Primary Crusher	PM	0.5	1.9
		PM ₁₀	0.5	1.9
311.BF1	Dust Collector, Secondary Crusher	PM	0.2	0.8
		PM ₁₀	0.2	0.8
41A.P1	A-frame Coal/Coke Pile	PM	0.1	0.2
		PM ₁₀	0.1	0.1
41A.P2	A-frame Gypsum Pile	PM	0.1	0.1
		PM ₁₀	0.1	0.1
41A.P3	A-frame Limestone Pile	PM	0.1	0.1
		PM ₁₀	0.1	0.1
41A.P7	Outside Coal/Coke Pile	PM	0.8	3.6
		PM ₁₀	0.4	1.8
213.P2	Iron Source Pile	PM	0.2	0.5

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		PM ₁₀	0.1	0.3
403.P1	Pile, CKD	PM	2.7	11.5
		PM ₁₀	1.4	5.8
449.P1	Pile, Outside Clinker Storage	PM	0.2	0.6
		PM ₁₀	0.1	0.3
449.P2	Crusher Pile	PM	0.1	0.2
		PM ₁₀	0.1	0.1
111.P1	Outside Limestone Pile, Quarry	PM	0.4	1.7
		PM ₁₀	0.2	0.9
111.P2	South Limestone Pile, Quarry	PM	0.2	0.8
		PM ₁₀	0.1	0.4
111.P3	Outside Limestone Pile, Quarry	PM	0.2	0.8
		PM ₁₀	0.1	0.4
41A.BF10	Dust Collector, Coal/Coke/Gypsum Unloading	PM	0.3	1.0
		PM ₁₀	0.3	1.0
41A.BF20	Dust Collector, Cola/Coke/Gypsum Storage Discharge	PM	0.3	1.0
		PM ₁₀	0.3	1.0
44A.BF10	Dust Collector, Apron Feeder	PM	0.2	0.9
		PM ₁₀	0.2	0.9
213.BF10	Dust Collector, Sand and Iron Unloading	PM	0.3	1.0
		PM ₁₀	0.3	1.0
213.BF20	Dust Collector, Sand and Iron Transport	PM	0.4	1.5
		PM ₁₀	0.4	1.5
221.BF10	Dust Collector, Stacker Transfer	PM	0.2	0.9
		PM ₁₀	0.2	0.9
323.BF10	Dust Collector, Sand and Iron to Bins	PM	0.2	0.9
		PM ₁₀	0.2	0.9
325.BF10	Dust Collector, Limestone Bin	PM	0.2	0.6
		PM ₁₀	0.2	0.6
325.BF20	Dust Collector, Raw Material Bins	PM	0.3	0.9
		PM ₁₀	0.3	0.9
325.BF30	Dust Collector, Raw Material Discharge	PM	0.5	1.8
		PM ₁₀	0.5	1.8
41A.T1	Transfer, Belt Conveyor 41A.BC20 to Gypsum Pile in Chalk Shed	PM	1.0	0.2
		PM ₁₀	0.4	0.1

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Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
41A.T3	Transfer, Truck Unloading to Coal Pile 41A.P7	PM PM ₁₀	2.0 0.7	0.3 0.1
111.T10	Transfer, Truck Unloading to Hopper 111.HP1	PM PM ₁₀	5.5 1.9	2.3 0.8
111.T12	Transfer, Truck Unloading to Hopper 111.HP2	PM PM ₁₀	5.5 1.9	2.3 0.8
111.T13	Transfer, Truck Unloading Limestone Pile 111.P1	PM PM ₁₀	5.5 1.9	0.6 0.2
111.T14	Transfer, Truck Unloading Limestone Pile 111.P2	PM PM ₁₀	5.5 1.9	0.6 0.2
111.T15	Transfer, Truck Unloading Limestone Pile 111.P3	PM PM ₁₀	5.5 1.9	1.4 0.5
213.T1	Transfer, Truck Unloading to 213.HP010	PM PM ₁₀	1.3 0.5	0.6 0.3
213.T2	Transfer, Truck Unloading to Outside Iron Source Pile 213.P2	PM PM ₁₀	1.3 0.5	0.2 0.1
213.T3	Transfer, Outside Iron Source Pile 213.P2 to loader	PM PM ₁₀	1.3 0.5	0.2 0.1
221.CH01	Chute, 221.BC10 to 221.ST10	PM PM ₁₀	5.5 1.9	4.6 1.6
221.RMB1	Raw Material Building for Sand, Iron and Limestone	PM PM ₁₀	0.1 0.1	0.3 0.2
221.T1	Transfer from Stacker Conveyor to Limestone Pile	PM PM ₁₀	5.5 1.9	4.6 1.6
321.CH01	Chute, 321.RE10 to 321.BC10	PM PM ₁₀	5.5 1.9	4.6 1.6
323.T1	Chute, Iron/Sand Reclaim to 323.AF10	PM PM ₁₀	0.8 0.3	0.3 0.2

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			lb/hr	tpy
41A.T2	Transfer, Belt Conveyor 41A.BC20 to Coal/Coke Pile in Chalk Shed	PM PM ₁₀	1.0 0.4	0.2 0.1
44B.BF10	Dust Collector, Coal Coke Bin Vent	PM PM ₁₀	0.2 0.2	0.5 0.5
40F.FT3	LWDF Tanks	Vents through either 443.SK10 or 40F.TX1		
40F.FT4				
40F.FT5				
40F.FT6				
40F.FT7				
40F.FT8				
40F.FT9				
41F.FT10				
40F.FTA				
40F.FT11				
40F.TX1	Thermal Oxidizer, LWDF Tanks	PM PM ₁₀ VOC SO ₂ CO NO _x Total HAP*	0.1 0.1 5.2 0.1 2.1 0.5 0.28	0.3 0.3 22.7 0.1 8.9 2.0 1.23
BCC	Bulk Container Cleaning	VOC Total HAP*	0.7 0.20	1.0 0.31
45F.TX10	Thermal Oxidizer, BWDF	PM PM ₁₀ SO ₂ VOC CO NO _x Total HAP*	0.1 0.1 0.1 0.7 0.3 0.3 0.01	0.1 0.1 0.1 3.1 0.9 1.1 0.03
44B.BF20	Dust Collector	Vents to 443.SK10		

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			lb/hr	tpy
443.BF10	Dust Collector, Raw Mill, Clinker Cooler, Preheater and Kiln			
443.BF30	Baghouse, Kiln Bypass			
443.SK10	Stack, Raw Mill, Kiln, Coal Mill and Bypass Gas Exhaust	PM	27.3	119.3
		PM ₁₀	336.0	520.6
		SO ₂	616.0 ¹	2,699.0
		VOC	44.6 ¹	195.0
		CO	2,500.0 ²	1,714.0
		NO _x	678.0 ¹	2,970.0
		Ammonia	78.0	164.0
		1,1,1-Trichloroethane		
		1,1,2,2-Tetrachloroethane*		
		1,1,2-Trichloroethane*		
		1,1-Dichloroethane*		
		1,2,4-Trichlorobenzene*		
		1,2-Dichloroethane*		
		1,2-Dichloropropane*		
		1,3-Dichloropropene*		
		1,4-Dichlorobenzene*		
		1,4-Phenylenediamine*		
		2,4,5-Trichlorophenol*		
		2,4,6,-Trichlorophenol*		
		2,4-Dinitrophenol*		
		2,4-Dinitrotoluene*	44.5	195.0
		3,3'-Dichlorobenzidine*		
		4,4'-Methylenedianiline*		
		4-Aminobiphenyl*		
		4-Nitrobiphenyl*		
		4-Nitrophenol*		
		Acrylonitrile*		
		Allyl Chloride*		
		Aniline*		
		Benzene*		
		Benzidine*		
		bis(2-Chloroethyl) ether*		
		bis(2-Ethylhexyl) phthalate*		
		Bromoform*		

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			lb/hr	tpy
		Bromomethane* Carbon disulfide* Carbon tetrachloride* Chlorobenzene* Chloroform* Chloromethane* Cumene* Diethanolamine* Dimethyl phthalate* Ethyl Acrylate* Ethylbenzene* Ethylene Glycol* Hexachlorobenzene* Hexachlorobutadiene* Hexachlorocyclopentadiene* Hexachloroethane* Hydroquinone* Iodomethane* Isophorone* Methyl Methacrylate* Methyl tert-butyl ether* Methylene chloride Napthalene* n-Hexane* Nitrobenzene* o-Anisidine* o-Toluidine* Pentachloronitrobenzene* Pentachlorophenol* Phenol* Styrene* Toluene* Vinyl acetate* Vinyl Bromide* Vinyl chloride* Xylene*		
		Dioxin/Furan*	2.93E-7	1.3E-6
		HCl Chlorine	95.15	416.76

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			lb/hr	tpy
		Arsenic*	0.04	0.18
		Beryllium*	0.04	0.18
		Cadmium*	0.14	0.58
		Chromium*	0.04	0.18
		Lead*	0.14	0.58
		Mercury*	0.09	0.39
		Antimony*	27.3	119.3
		Cobalt*		
		Manganese*		
		Nickel*		
		Selenium*		
710.EG10	Emergency Generator	PM	0.5	0.2
		PM ₁₀	0.5	0.2
		SO ₂	2.9	0.7
		VOC	0.5	0.2
		CO	3.9	1.0
		NO _x	6.2	1.6
		Total HAP*	0.01	0.01
111.R1A-F	Quarry Haul Road	PM	24.1	24.1
		PM ₁₀	6.9	6.9
HR01	Plant Road 1	PM	9.2	5.1
		PM ₁₀	1.9	1.1
HR02	Plant Road 2	PM	2.8	1.5
		PM ₁₀	0.8	0.5
HR03	Plant Road 3	PM	0.6	0.1
		PM ₁₀	0.2	0.1
HR04	Plant Road 4	PM	1.4	0.9
		PM ₁₀	0.4	0.3
HR05	Plant Road 5	PM	0.4	0.4
		PM ₁₀	0.2	0.2
HR06	Plant Road 6	PM	0.7	0.7
		PM ₁₀	0.2	0.2
HR07	Plant Road 7	PM	0.4	0.2
		PM ₁₀	0.1	0.1
HR08	Plant Road 8	PM	0.2	0.1
		PM ₁₀	0.1	0.1
HR09	Plant Road 9	PM	0.1	0.1
		PM ₁₀	0.1	0.1
HR10	Plant Road 10	PM	0.9	0.4

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			lb/hr	tpy
		PM ₁₀	0.2	0.1
HR11	Plant Road 11	PM	0.1	0.1
		PM ₁₀	0.1	0.1
HR12	Plant Road 12	PM	0.1	0.1
		PM ₁₀	0.1	0.1
HR13	Plant Road 13	PM	2.5	5.2
		PM ₁₀	0.5	1.1
HR14	Plant Road 14	PM	0.7	0.2
		PM ₁₀	0.2	0.1
HR15	Plant Road 15	PM	1.9	3.4
		PM ₁₀	0.4	0.7
HR16	Plant Road 16	PM	0.9	0.5
		PM ₁₀	0.2	0.1
HR17	Plant Road 17	PM	0.2	0.1
		PM ₁₀	0.1	0.1
HR18	Plant Road 18	PM	1.1	1.1
		PM ₁₀	0.3	0.3
HR19	Plant Road 19	PM	0.9	0.3
		PM ₁₀	0.3	0.1
HR20	Plant Road 20	PM	0.7	0.1
		PM ₁₀	0.2	0.1
HR21	Plant Road 21	PM	3.1	9.2
		PM ₁₀	0.9	2.6
HR22	Plant Road 22	PM	0.5	0.2
		PM ₁₀	0.2	0.1
HR23	Plant Road 23	PM	0.4	0.1
		PM ₁₀	0.2	0.1
449.CR10	Portable Crusher	PM	0.3	1.0
		PM ₁₀	0.3	1.2
		SO ₂	1.1	4.5
		VOC	3.3	14.4
		CO	2.9	12.6
		NO _x	3.3	14.4
		Total HAP*	0.02	0.06

*HAPs included in the PM/VOC totals. Other HAPs are not included in any other totals unless specifically stated.

**Air Contaminants such as ammonia, acetone, and certain halogenated solvents are not VOCs or HAPs.

1. 30-day rolling average value

2. 8-hour rolling average value

3. Total Other HAP only includes emissions from SN-BCC, SN-40F.TX1, SN-45F.TX10, SN-449.CR10 and SN-710.EG10 but does not include HAP emissions that are listed individually.

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SECTION III: PERMIT HISTORY

Permit #75-A was issued to Arkansas Cement Corporation Foreman Production facilities on or about September 21, 1971. This permit allowed the installation of three "Precipitair" electrostatic precipitators and supporting equipment at the existing facility. Proposed emissions were 29.58 lb/hr of particulates.

Permit #75-A (modification) allowed the facility to use coal instead of natural gas as the primary fuel to fire the three cement kilns and to replace the three previously approved electrostatic precipitators. This amendment was issued on September 15, 1976.

Permit #75-A (modification) was issued on March 26, 1982. This modification allowed Arkansas Cement to install a gravel bed filter to control particulate discharge from the clinker coolers to replace the multiclone that was being used. Permitted emission rates dropped from 475 lb/hr to 25 lb/hr of particulate.

Permit #75-AR-3 was issued on May 27, 1983, and it rescinded the modification issued on March 26, 1982, because the facility decided to install a Fuller fabric filter with heat recovery instead of the gravel bed filter. This modification also included the replacement of part of the clinker handling system and the installation of a baghouse to control emissions generated at this crossover point. This modification added 1 lb/hr of particulate emissions.

Permit #75-AR-4 was issued on January 29, 1988. This modification changed the name of the facility to Ash Grove Cement Company and consolidated the existing emissions sources into one permit and placed restrictions on the use of waste-derived fuel at this facility. This permit allowed emissions of 99.9 lb/hr of TSP, 787 lb/hr of SO₂, 39 lb/hr of chlorine, 0.048 lb/hr of lead, and 0.006 lb/hr of chromium.

Permit #75-AR-5 was issued on June 30, 1989. This permit allowed Ash Grove to burn solid hazardous waste in the cement kilns. This permit allowed emissions of 92.2 lb/hr TSP, 1574 lb/hr of SO₂, 164.6 lb/hr of HCl, 0.22 lb/hr of lead, and 0.316 lb/hr of chromium.

Permit #75-AR-6 was issued on July 8, 1991. This permit allowed Ash Grove to change the outlet nozzles of the ESPs so that each kiln could vent to a single stack. Emissions were not increased due to this modification.

Permit #75-AR-7 was issued on November 13, 1991. This modification allowed all sources, regardless of size, to be permitted. No changes in operation were made. Emissions consisted of 553 tpy TSP, 6,894.1 tpy SO₂, 721 tpy HCl, 0.964 tpy lead, and 1.39 tpy chromium.

Permit #75-AR-8 was issued on June 15, 1994. This permit covered the installation of CEMS required by the BIF rule. Permit #75-AR-7 was modified so that the Air Permit monitoring requirements for SO₂, NO_x, and CO could be satisfied by the new CEMS. This modification also added two product storage silos and related materials handling equipment to improve the loading and shipping of finished product, and modified four existing dust control baghouses in a manner

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that resulted in four new point discharge stacks. The carbon adsorption system on the liquid waste fuel storage tanks was replaced by a liquid nitrogen recovery condenser. These changes did not result in any changes to the emission rates at this facility.

Permit #75-AR-9 was issued on February 11, 1998. This modification authorized Ash Grove to burn waste tires as fuel. Emission rates for SO₂ were increased and emission rates for NO_x and CO were added. Emission totals listed in this permit were 567 tpy PM₁₀, 5,740 tpy SO₂, 1,183 tpy CO, 9,080 tpy NO_x, 0.964 tpy lead, and 3.0 tpy VOC.

Permit 1235-AR-1 was issued on November 7, 1995. This permit is for the limestone quarry located at the Ash Grove site. The requirements for this quarry are being incorporated into this permit. The quarry is permitted to emit 4.3 lb/hr and 19.0 tpy of PM/PM₁₀.

Permit 75-AOP-R0 was the initial Title V permit issued to Ash Grove Cement in Foreman, Arkansas on October 2, 2002. This permit allowed for several changes at this facility. The portable crusher (SN-R22) was permitted for the first time. Ash Grove installed 10 new LWDF tanks and changed the control device to a thermal oxidizer with a carbon adsorption backup system. A clinker storage dome was added to the facility and the ESPs used to control emissions from the kilns were refurbished. Also, the quarry (formerly permitted under permit #1235-AR-1) which supplies limestone for use in the cement kilns was included in this permit. The permit also incorporated the requirements of 40 C.F.R. Part 63, Subpart LLL, National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry, and 40 C.F.R. Part 63, Subpart EEE, National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors.

Permit 75-AOP-R1 was issued on May 30, 2003. This modification allowed Ash Grove to construct a new cement kiln dust (CKD) handling system (SN-P32, SN-P33, SN-P34, SN-P35 and SN-P36) and remove baghouses P18 and P19. This system allowed the CKD to be loaded out for sale, pneumatically conveyed across the highway to a new CKD landfill, and it also allowed some of the CKD to be recycled to kiln #3. This modification resulted in net PM/PM₁₀ emissions increases of 0.8 lb/hr and 2.6 tpy from the CKD handling equipment and 4 proposed new fabric filter dust collectors. Also, Ash Grove constructed a baghouse (SN-C44). This change resulted in an increase of PM/PM₁₀ emissions of 0.17 lb/hr and 0.75 tpy. Finally, Ash Grove Cement Company added 3 drag conveyors and replaced 2 bucket conveyors and a belt conveyor that were part of the clinker handling system. The two bucket conveyors were the number 6 and number 7 bucket conveyors. The belt conveyor was the 440 belt. These conveyors are subject to all applicable sections of 40 C.F.R. 63, Subpart LLL. No additional emissions are resulted from this modification.

Permit 75-AOP-R2 was issued on May 4, 2005. This modification combined and incorporated several requests for minor modifications to the Title V permit. This modification allowed for a redesign of the CKD handling system (SN-P32 through SN-P36) and the addition of P37. It was discovered that the system required additional conveying air. This modification also allowed Ash Grove to install a belt conveyor with integrated dust collector (SN-P38) to the CKD handling system.

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Ash Grove was given approval to manufacture a new product named DURACEM OW. Manufacture of this product will result in no increase in process emissions, however; there will be an increase in fugitive emissions from the haul roads (SN-R20). Finally, the facility replaced a bucket elevator in the Chalk Dryer System with a drag conveyor. No additional emissions occurred as a result of this change.

These changes resulted in net emissions increases of 1.5 tpy of PM and 3.1 tpy PM₁₀ emissions from this facility.

Permit 75-AOP-R3 was issued on August 29, 2005. This modification allowed Ash Grove to install an additional baghouse for bins 26 and 27. The increased air flow resulting from installation of this new baghouse caused potential emissions increased by 4.5 tpy PM₁₀. This modification also corrected typographical errors found in 75-AOP-R2.

Permit 75-AOP-R4 was issued on January 12, 2006. Hydrogen chloride emissions were increased to match the emission rates allowed by 40 C.F.R. 63, Subpart EEE. Other HAP emission rates were increased based on recent stack testing. Permitted increases were 597.7 tpy hydrogen chloride, 0.16 tpy acrylonitrile, 1.55 tpy benzene, 0.15 tpy bezidine, 0.11 tpy toluene, 0.16 tpy vinyl chloride. Ash Grove also changed the minimum kVa for each electrostatic precipitator based on data collected during the comprehensive performance test. The new minimum 3-hour rolling average kVa values are 198, 202, and 101 for kilns 1, 2, and 3 respectively.

Permit 75-AOP-R5 was issued on May 12, 2006. This modification allowed Ash Grove to install an additional baghouse (SN-P-39) on the 500 ton CKD Bin (SN-P35) and to replace a conveyor belt and add two baghouses (SN-C45 and C-46) to the clinker silos. These changes resulted in a permitted emissions increase of 2.4 tpy PM/PM₁₀.

Permit 75-AOP-R6 was issued on September 18, 2006. This modification allowed Ash Grove to replace an existing screw conveyor with a weigh belt (SN-M12) and add a conveyor belt to allow the addition of limestone to Mill No. 4 (SN-M46). This project resulted in additional permitted PM emissions of 0.5 tpy and PM₁₀ emissions of 0.2 tpy.

Permit 75-AOP-R7 was issued on May 15, 2007. This modification allowed Ash Grove to construct a new dry-process preheater/precalciner (PH/PC) cement kiln system at this facility as a modernized replacement for the three existing wet-process cement kilns. This change triggered PSD review for VOC and CO.

Permit 75-AOP-R8 was issued on August 23, 2007. This minor modification affected only the three kiln operating scenario. This modification allowed Ash Grove to replace an existing conveyor belt and apron feeders. Also, this modification allowed the removal of sources C-14, 15, 16, 17, 18, 36 and 37. This project resulted in permitted emissions reductions of 16.3 tpy PM and 6.4 tpy PM₁₀.

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Permit 0075-AOP-R9 was issued on January 23, 2008. This modification allowed Ash Grove to replace the existing loadout spouts at the North Truck Load in the Shipping Department, add a baghouse at the south load out, and remove from the permit a baghouse that was never installed. This resulted in permitted emissions increases of 1.8 tpy PM and PM₁₀ for the Pyroprocess Unit Operating Scenario.

Permit 0075-AOP-R10 was issued on December 19, 2008. This modification allowed Ash Grove to install a dust collector (SN-621.BF9) to the Delta Silos pump hopper, and install an additional baghouse (SN-502.BF3) at the Clinker Unloading area. This resulted in permitted emissions increases of 0.4 tpy PM and PM₁₀ for the Pyroprocess Unit Operating Scenario.

Permit 0075-AOP-R11 was issued on July 1, 2009. This modification allowed Ash Grove to replace the existing Rail Silo load out spout with two (2) spouts with their own integral dust collectors and to unload Mill Scale in an additional location when the material is received by rail. The load out spouts are designated as 611.BF3 and 611.BF4. Due to the load out spouts close proximity, only one spout can be used at a time. Therefore, the overall emissions increase was the amount of one of the dust collectors on the spouts. With the second permit modification submitted, Ash Grove modified the Pyroprocess Operating Scenario which included removing sources, adding sources, and updating certain baghouse operating parameters. Ash Grove also submitted updates to correct miscellaneous typographical errors and notes regarding sources that cannot operate simultaneously with other sources. For the modifications, the permitted emissions decreased by 5.3 tpy of PM and PM₁₀.

Permit 0075-AOP-R12 was issued on November 12, 2010. This modification allowed Ash Grove to add the Wilson rail-to-truck conveyor system (SN-611.UL10) as a permanent source. For the modification proposed, the permitted emissions increased by 0.3 tpy of PM and PM₁₀. The Three Kiln Configuration Scenario was removed with this permitting action, as the facility had begun operating under the Pyroprocess Unit Operating Scenario. Overall permitted emission changes included decreases of 298.75 tpy of PM₁₀, 3041.4 tpy of SO₂, 148.67 tpy of VOC, and 6153.4 tpy of NO_x, and a permitted emission increase of 512.4 tpy of CO. This permitting action did not include a PSD review as the PSD review was completed with the application dated August 31, 2006 and permit issuance of Permit No. 0075-AOP-R7.

Permit 0075-AOP-R13 was issued on February 23, 2012. This permit modification allowed Ash Grove to make the following changes:

1. Remove sources that are no longer in service or not installed;
2. Add transfer points and enclosed transfer points;
3. Modify the clinker reclaim system and rail silo dust collector;
4. Revise emission estimates for Finishing Mill # 4;
5. Place iron-containing raw materials into an outside pile;
6. Rename source 511.BF1 to 513.BF1;
7. Correct the stack height for source 523.BF2;
8. Add operational flexibility to operate both dust collectors on the 500 ton CKD bins;
9. Revise Specific Condition 55 to incorporate changes previously approved;
10. Update the haul road emissions;

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11. Remove the Temporary Three Kiln Scenario; and
12. Remove sources 449.T2 and 449.T3.

The total permitted emission increases included 41.3 tpy of PM, 1.7 tpy of PM₁₀. The total permitted emission decreases included 0.1 tpy of SO₂, 1.8 tpy of VOC, 10.1 tpy of CO, 3.1 tpy of NO_x, 4.9 tpy of Hexachlorobenzene, 4.9 tpy of Acrylamide, and 4.9 tpy of Bis(chloromethyl)ether. The 41.3 tpy of PM emission increase is due to updated haul road emissions. Had the facility been able to properly identify the future haul road emissions with the 2006 PSD Application, the net emission change would have been below the significant emission increase level that would trigger PSD review for PM or PM₁₀.

Permit 0075-AOP-R14 was issued on April 11, 2013. With this permitting action, Ash Grove:

1. Renewed the Title V permit for the facility;
2. Added an additional nuisance dust collector, 611.BF9 (North Load Out Spout), on the new truck load out silos;
3. Revised the VOC BACT limits for SN-443.SK10;
4. Incorporated the negotiated conditions (see Specific Conditions 185 - 188 of Permit 0075-AOP-R14) of the Permit Appeal Resolution (PAR) regarding road emissions for Permit 0075-AOP-R13; and
5. Sources SN-611.BF5 – SN-611.BF9 were renumbered to SN-631.BF10, SN-631.BF15, SN-631.BF20, SN-631.BF25, and SN-631.BF30.

The total permitted emission increases included 74.5 tpy of VOC.

Permit 0075-AOP-R15 was issued on July 31, 2014. With this permitting action, Ash Grove:

1. Incorporated the recently revised applicable requirements of 40 C.F.R. Part 63, Subpart LLL;
2. Incorporated 40 C.F.R. Part 63, Subpart G and Subpart XX applicable requirements;
3. Removed decommissioned sources;
4. Incorporated the updated Fugitive Dust Plan;
5. Corrected particulate matter emission limits for several sources;
6. Permitted a clinker transfer chute; and
7. Incorporated the language of the Permit Appeal Resolution (PAR) for condensable particulate matter testing required in Specific Condition 138.

The total permitted emission increases included 28.3 tpy of PM and 3.0 tpy of PM₁₀. 27.4 tpy of permitted PM emission increase was due to typographical errors from the previous permit. These increases did not trigger a PSD review.

Permit 0075-AOP-R16 was issued on February 12, 2015. On August 14, 2013 Ash Grove entered into an agreement (Consent Decree) with the United States Environmental Protection Agency, the United States Department of Justice, and several state agencies. With this permitting action, Ash Grove incorporated the requirements and limitations of the consent decree. There were no permitted emission changes with this modification.

Permit 0075-AOP-R17 was issued on October 13, 2015. With this permitting action, Ash Grove added a lime injection system to the kiln feed (SN-44M.BF10), which is controlled by a baghouse. The permitted emission increases include 0.3 tpy of PM and PM₁₀.

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Permit 0075-AOP-R18 was issued on February 10, 2016. With this permitting action, Ash Grove installed a new bulk waste derived fuel (BWDF) system, and a RTO to control the emissions from this source, SN-45F.TX10. The existing truck routes SN-HR12 – SN-HR14 were revised, and a new truck route, SN-HR11, was added. The permitted emission increases included 1.2 tpy of PM, 0.4 tpy of PM₁₀, 0.1 tpy of SO₂, 3.1 tpy of VOC, 0.9 tpy of CO, 1.1 tpy of NO_x, 0.03 tpy of Single HAP, and 0.03 tpy of Total HAP.

Permit 0075-AOP-R19 was issued on January 25, 2017. With this permitting action, Ash Grove permanently allowed clinker crushing to be done on a periodic basis when the outside clinker pile warrants processing instead of asking for temporary permits. The necessary equipment to process the outside clinker pile included the end loader to crusher transfer system (SN-449.T7), transfer from crusher to belt (SN-449.T8), a portable crusher (SN-449.CR10), and the iron source pile (SN-213.P2). Also, the facility added two small dust collectors to the crossover area (SN-409.BF10 & 449.BF31). Two transfer points (SN-502.T1 and SN-502.T2) and four dust collectors (SN-449.BF1, 502.BF1, 502.BF2, and 502.BF3) were removed. The permitted emission increases included 1.7 tpy of SO₂, 5.4 tpy of VOC, 4.8 tpy of CO, 5.4 tpy of NO_x, and 0.58 tpy of Total HAP. The permitted emission decreases included 2.0 tpy of PM and 3.7 tpy of PM₁₀.

Permit 0075-AOP-R20 was issued on August 17, 2018. With this permitting action, Ash Grove:

1. Renewed the Title V permit for the facility.
2. Added SN-326.CH22 Raw Meal.
3. Removed the following sources – SN-326.BF20, SN-213.P1, SN-41F.BF10, SN-403.T1, SN-449.T1, SN-HR09, 41F.TK10.
4. Revised the specific condition numbering system to a chapter numbering system.
5. Revised applicable subpart sections and eliminated paraphrasing of the Federal regulations.
6. Updated the permit shield.
7. Revised source descriptions and process descriptions.
8. Corrected several emission limits due to updated calculations and rounding.
9. Source SN-RCC was renamed to SN-BCC. Source SN-M9 was renamed to SN-311-CHA.
10. Updates the insignificant activity list.
11. Added condensable PM₁₀ to the PM₁₀ total for SN-443.SK10.
12. Removed the negotiated conditions (Specific Conditions 288 - 291 of Permit 0075-AOP-R19) of the Permit Appeal Resolution (PAR) regarding road emissions. Silt testing was completed in 2014 and was below permit limits.
13. Incorporated a Minor Modification that included installation of a wider conveyor belt in the clinker dome tunnel.
14. Incorporated the conditions of the Consent Decree and removed Appendix Q - Ash Grove Cement EPA Consent Decree.

The permitted emission increases included 400.8 tpy of PM₁₀, 0.2 tpy of SO₂, 1.1 tpy of VOC, 0.3 tpy of CO, and 0.16 tpy of HCL/Chlorine. The permitted emission decreases included 0.2 tpy of PM, 0.3 tpy NO_x, and 0.8 tpy HAPs.

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The facility did not undergo a PSD review for PM₁₀ since there was no physical change to SN-443.SK10. This source was not required to be evaluated for condensable PM₁₀ during the previous PSD evaluation and was therefore grandfathered. The PSD permit was issued in 2007 which pre-dates condensable PM₁₀ as a regulated NSR pollutant.

Permit 0075-AOP-R21 was issued on December 21, 2018. This permitting action incorporated a Minor Modification that added a new outdoor limestone storage pile (SN-111.P1). This modification included the material transfer points for the limestone pile (SN-111.T13). The total annual emission increases included 0.7 tpy PM and 0.3 tpy PM₁₀.

Permit 0075-AOP-R22 was issued on July 13, 2020. This permitting action incorporated a Minor Modification that replaced SN-40F.TX1 Thermal Oxidizer, LWDF Tanks with a new 6.5 MMBtu/hr unit. The total annual emission increases included 0.2 tpy PM/PM₁₀, 18.3 tpy VOC, 6.4 tpy CO, and 1.5 tpy NO_x.

Permit 0075-AOP-R23 was issued on March 24, 2021. Ash Grove submitted a Minor Modification to add a new South Limestone Storage Pile (SN-111.P2) and material transfer points for the limestone pile (SN-111.T14). The modification also added a new Liquid Waste Derived Fuels (LWDF) storage tank (SN-40F.FT11) and removed a gypsum storage pile (SN-41A.P6). The process description, Specific Conditions WDF-5, WDF-9 and HR-3 were also revised. The total annual emission increases included 0.7 tpy PM and 0.2 tpy PM₁₀.

Permit 0075-AOP-R24 was issued on October 24, 2022. Ash Grove submitted a Minor Modification to:

1. Add a new limestone pile in the quarry for storage of quarried limestone (SN-111.P3) and an associated truck unloading transfer point (SN-111.T15) representing truck unloading onto the new limestone storage pile.
2. Add a new coal pile for storage of coal (SN-41A.P7) and an associated truck unloading transfer point (SN-41A.T3) representing truck unloading onto the new coal storage pile.
3. Install two (2) new dust collectors (SN-403.BF9 and SN-403.BF10) on top of the 500 ton cement kiln dust (CKD) bins to provide additional dust control. There were four (4) 500 ton CKD bins with two (2) dust collectors (SN-403.BF3 and SN-403.BF8) controlling particulate emissions from the four (4) bins. Ash Grove added two (2) additional dust collectors so that four (4) dust collectors control emissions from the four (4) bins. There were no changes to process throughput associated with this change; the purpose was to provide additional dust control.

Permitted emission rates increased by 8.1 tpy PM and 5.1 tpy PM₁₀. Potential emissions for the proposed new equipment were below all Prevention of Significant Deterioration (PSD) significant emissions rates (SERs), and no upstream or downstream emissions were affected by installation of the proposed equipment. PSD review was not required.

Permit 0075-AOP-R25 was issued on August 15, 2023. This was a Title V permit renewal for this facility. The following changes were included in this permit renewal:

- Changed the language in Specific Condition (SC) WDF-5 and WDF-9 to allow for use of alternative monitoring in certain situations. For SC WDF-5, Ash Grove Cement (AGC)

proposed that the thermal oxidizer combustion zone temperature requirement not apply when a carbon canister control system or other alternate control system is in place. For SC WDF-9, AGC proposed that the thermal oxidizer combustion zone temperature requirement not apply when the system is “RCRA empty” as defined in 40 C.F.R. § 261.7.

- Revised SC EEE-5 to note that testing below 90% of the operating capacity will result in a reduced operating limit, but will not necessarily result in a violation of the permit condition.
- Removed SC EEE-6. The condensable PM testing was initially required to establish a total PM₁₀ emission limit. AGC has completed the tests required by this condition, and established an appropriate emissions limit based on the results of those performance tests. Additional testing is not necessary, as the permit limits have been established at levels high enough to ensure compliance with the permit limits in SC EEE-1.
- Removed SC EEE-164. SC EEE-164 references requirements applicable to hazardous waste burning lightweight aggregate kilns, which are not in operation at AGC.
- Removed 2 new dust collectors SN-403.BF9 and SN-403.BF10 from the permit. AGC has determined that the two new dust collectors will not be constructed.
- Added SN-449.T16 Truck Unloading Crusher Pile to the permit.
- Increased the size of storage piles SN-111.P1, SN-111.P2, SN-213.P2, and SN-41A.P7. AGC requested that SN-111.P1 be increased to seven (7) acres in total area, that that SN-111.P2 be increased to three (3) acres in total area, that that SN-213.P2 be increased to two (2) acres in total area, and that that SN-41A.P7 be increased to six (6) acres in total area.
- Removed storage pile SN-41A.P5 from the permit.
- Added a new one acre storage pile SN-449.P2, the Crusher Pile.
- Updated the Consent Decree provisions in SC CD-14 to more accurately incorporate Consent Decree language into the permit.
- Added ammonia emissions at the kiln (SN-443.SK10). Ammonia results from both “ammonia slip” from the SNCR used to control NO_x emissions from the kiln and as a result of the combustion process at the kiln.
- Updated haul road emissions including 3 sections previously not listed in the permit HR08, HR09, and HR10. AGC re-evaluated the emissions estimates developed to estimate emissions from roads throughout the plant.
- Increased the size of the portable crusher engine (SN-449.CR10) to 500 horsepower.
- Updated the insignificant activity (IA) list to more accurately reflect IAs at the plant.
- Updated Appendix B of the permit. AGC reviewed and updated the list of enclosed transfer points.
- Updated Appendix N of the permit. AGC conducted a new comprehensive performance test (CPT) of the kiln in September 2022, as required by 40 C.F.R. § 63, Subpart EEE and SC EEE-71.

The facility’s permitted emission rates increased by 4.8 tpy PM, 0.9 tpy PM₁₀, 2.8 tpy SO₂, 10.8 tpy VOC, 1.4 tpy CO, 7.5 tpy NO_x, 10.93 tpy total HAPs, and 164.0 tpy ammonia.

SECTION IV: SPECIFIC CONDITIONS

Material Handling, Transfer Point and Dust Collectors Subject to 40 C.F.R. § 63 Subpart LLL

Source Description

Raw materials, intermediate and final products and process wastes are moved about the facility using a combination of belt, chutes and pneumatic transfer.

Emissions from transfer points located throughout the facility are controlled by dust collectors.

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. Emission rates are based on maximum capacity of the equipment and continuous operation. Compliance shall be demonstrated through compliance with Plantwide Conditions 5 and 9. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
326.CH22	Raw Meal	PM ₁₀	0.1	0.1
326.CH26	Chute Transfer Point (326.DG20 to waste)	PM ₁₀	0.2	0.6
403.CHM	Chute, Truck Loading of CKD	PM ₁₀	0.1	0.1
403.CHR	Chute, CKD Truck Loadout	PM ₁₀	0.1	0.1
403.CHU	Chute, Truck Loading of CKD	PM ₁₀	0.1	0.1
443.CH56	Loading Spout Transfer Point (443.CH56 to collection bin 451.XA970)	PM ₁₀	0.1	0.1
443.CH46	Chute Transfer Point (443.SC40 to 331.XA970)	PM ₁₀	0.1	0.1
449.CH30	Chute Transfer Point (449.DM1 to 449.BC05)	PM ₁₀	0.2	0.7
449.CH31	Chute Transfer Point (449.DM1 to 449.BC05)	PM ₁₀	0.2	0.7
449.CH32	Chute Transfer Point (449.DM1 to 449.BC05)	PM ₁₀	0.2	0.7
449.CH33	Chute Transfer Point (449.DM1 to 449.BC05)	PM ₁₀	0.2	0.7
449.CH42	Duct Transfer Point (449.BC10 to 409.DB1, 409.DB2)	PM ₁₀	0.2	0.6

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SN	Description	Pollutant	lb/hr	tpy
449.HP2	Hopper, Outside Clinker Reclaim	PM ₁₀	0.2	0.1
449.HP4	Transfer, Hopper to clinker reclaim chute	PM ₁₀	0.1	0.1
449.T7	Transfer, end loader to crusher	PM ₁₀	0.2	0.5
449.T8	Transfer, from crusher to belt	PM ₁₀	0.2	0.5
533.LS10	Transfer from off-spec Clinker Bin 511.BI100 through Loading Spout 511.LS150 to Truck	PM ₁₀	0.8	0.4
534.CH12	Chute Transfer Point (534.DG20 to waste bin)	PM ₁₀	0.1	0.2
311.CHA	Tripper Discharge into Bins	PM ₁₀	0.2	0.9
44C.BF10	Dust Collector, Pulverized Fuel Bin Vent	PM ₁₀	0.1	0.1
44M.BF10	Lime injection system baghouse	PM ₁₀	0.1	0.2
326.BF10	Dust Collector, Raw Mill Feed System	PM ₁₀	0.4	1.6
326.BF30	Dust Collector, Raw Mill Rejects	PM ₁₀	0.3	1.1
327.BF10	Dust Collector, Raw Material Airslide	PM ₁₀	0.1	0.3
327.BF20	Dust Collector, Raw Material Airslide	PM ₁₀	0.2	0.7
327.BF30	Dust Collector, Raw Material Airslide	PM ₁₀	0.2	0.8
329.BF10	Dust Collector, High Grade Limestone Bin	PM ₁₀	0.2	0.5
329.BF20	Dust Collector, Alleviator	PM ₁₀	0.2	0.5
403.BF3	Dust Collector, 500 Ton Silos	PM ₁₀	0.3	1.3
403.BF4	Dust Collector, 1500 Ton Silo	PM ₁₀	0.5	1.9
403.BF6	Dust Collector, 1500 Ton Silo	PM ₁₀	0.4	1.6
403.BF7	Dust Collector, Truck Loadout DC-61	PM ₁₀	0.2	0.7
403.BF8	Dust Collector, 500 Ton Silos	PM ₁₀	0.3	1.3
409.BF10	Cross Over Baghouse # 1	PM ₁₀	0.1	0.2

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SN	Description	Pollutant	lb/hr	tpy
442.BF10	Dust Collector, Kiln Feed Airslide	PM ₁₀	0.2	0.7
442.BF20	Dust Collector, Kiln Feed System	PM ₁₀	0.2	0.5
443.BF20	Dust Collector, Cement Kiln Dust Bin	PM ₁₀	0.1	0.4
449.BF10	Dust Collector, Clinker Cooler Discharge	PM ₁₀	0.2	0.5
449.BF15	Dust Collector, Clinker – Loader to 449.HP2 Hopper	PM ₁₀	0.1	0.3
449.BF20	Dust Collector, Clinker Bin Vents	PM ₁₀	0.4	1.4
449.BF30	Dust Collector, Clinker Reclaim Elevator	PM ₁₀	0.2	0.5
449.BF31	Cross Over Baghouse # 2	PM ₁₀	0.1	0.2
449.BF40	Dust Collector, Clinker Dome Vent	PM ₁₀	0.2	0.9
449.BF50	Dust Collector, Clinker Reclaim Conveyor Transfer	PM ₁₀	0.2	0.8
449.BF60	Dust Collector, Clinker Reclaim Conveyor Transfer	PM ₁₀	0.2	0.6
449.BF70	Dust Collector, Clinker Reclaim Conveyor Transfer	PM ₁₀	0.2	0.9
513.BF1	Dust Collector, Outside Clinker Bins Discharge	PM ₁₀	0.2	0.8
514.BF1	Dust Collector on Bin #44	PM ₁₀	0.2	0.9
514.BF2	Dust Collector, #2 Finish Mill	PM ₁₀	0.7	3.0
514.BF3	Dust Collector, #2 Finish Mill Discharge Baghouse	PM ₁₀ VOC	0.5 4.0	2.0 3.8
521.BF1	Dust Collector, West Clinker Silo Dust Collector	PM ₁₀	0.6	2.6
521.BF2	Dust Collector, East Clinker Silo Dust Collector	PM ₁₀	0.6	2.6
523.BF2	Dust Collector, Clinker Receiving	PM ₁₀	0.7	3.0
524.BF1	Dust Collector, #4 Finish Mill Discharge Baghouse	PM ₁₀ VOC	1.0 4.0	4.2 12.4
524.BF2	Dust Collector, #4 Finish Mill Baghouse	PM ₁₀	1.5	6.6

SN	Description	Pollutant	lb/hr	tpy
531.BF10	Dust Collector, Limestone/Gypsum Belt Discharge	PM ₁₀	0.2	0.7
531.BF20	Dust Collector, Limestone/Gypsum Bin Vents	PM ₁₀	0.4	1.7
533.BF10	Dust Collector, Finish Mill Feed Bins Discharge	PM ₁₀	0.3	1.2
533.BF20	Dust Collector, Finish Mill Feed Bin Loadout	PM ₁₀	0.1	0.3
534.BF10	Dust Collector, Finish Mill Feed System	PM ₁₀	0.5	2.2
534.BF20	Dust Collector, Finish Mill Recirculation System	PM ₁₀	0.3	1.1
535.BF10	Dust Collector, Finish Mill Discharge	PM ₁₀ VOC	1.1 36.1	4.8 15.6
535.BF20	Bag Filter, Pneumatic Conveying to Storage	PM ₁₀	0.1	0.3
611.BF1	Dust Collector, Rail Silos DC#24	PM ₁₀	0.5	2.1
611.BF3	Dust Collector, East Rail Load Out Spout	PM ₁₀	0.2	0.6
611.BF4	Dust Collector, East Rail Load Out Spout Alternate	PM ₁₀	0.2	0.6
611.BF10	Dust Collector, Silos 19 and 20 Discharge to Elevator	PM ₁₀	0.2	0.7
611.BF20	Dust Collector, Elevator Discharge	PM ₁₀	0.2	0.9
611.BF30	Dust Collector, Outside Cement Loading to Rail	PM ₁₀	0.1	0.3
611.BF40	Dust Collector, Rail Loadout Bin	PM ₁₀	0.1	0.3
611.UL10	Dust Collector, Rail-to-Truck	PM ₁₀	0.1	0.3
612.BF1	Dust Collector, Top #6 Kaiser Silos DC #21	PM ₁₀	0.5	2.1
612.BF2	Dust Collector, Top #1 & #2 Kaiser Silo	PM ₁₀	0.2	0.8
612.BF3	Dust Collector, Top #5 Kaiser Silos DC #22	PM ₁₀	0.2	0.7
612.BF4	Dust Collector, Top #11 Kaiser Silos DC #30	PM ₁₀	0.2	0.7
612.BF5	Dust Collector, Top of Packhouse DC #26	PM ₁₀	0.7	3.0

SN	Description	Pollutant	lb/hr	tpy
621.BF1	Dust Collector, Top of #15 Delta Silo DC #23	PM ₁₀	0.6	2.5
621.BF2	Dust Collector, #1 through #4 Bins, South Truck Loadout DC #28	PM ₁₀	0.5	1.9
621.BF3	Dust Collector, South Truck Loadout #1 through #4 Bins DC #31/32	PM ₁₀	0.2	0.8
621.BF5	Dust Collector, Top of #26 & #27 Truck Loadout DC #49	PM ₁₀	0.7	3.0
621.BF6(E)	North Truck Loadout Spout #27 Dust Collector	PM ₁₀	0.1	0.4
621.BF7(W)	North Truck Loadout Spout #26 Dust Collector	PM ₁₀	0.1	0.4
621.BF8	South Truck Loadout Dust Collector #5 Bin	PM ₁₀	0.2	0.9
621.BF9	Delta Silos Pump Hopper Bag House	PM ₁₀	0.1	0.3
631.BF10	Dust Collector, East Truck Load Silo 1	PM ₁₀	0.3	1.2
631.BF15	Dust Collector, West Truck Load Silo 2	PM ₁₀	0.3	1.2
631.BF20	Dust Collector, South Load Out Spout	PM ₁₀	0.1	0.4
631.BF25	Dust Collector, Central Load Out Spout	PM ₁₀	0.1	0.4
631.BF30	Dust Collector, North Load Out Spout	PM ₁₀	0.1	0.4

2. The permittee shall not exceed the emission rates set forth in the following table. Emission rates are based on maximum capacity of the equipment and continuous operation. Compliance shall be demonstrated through compliance with Plantwide Conditions 5 and 9. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
326.CH22	Raw Meal	PM	0.1	0.1
326.CH26	Chute Transfer Point (326.DG20 to waste)	PM	0.4	1.6

SN	Description	Pollutant	lb/hr	tpy
403.CHM	Chute, Truck Loading of CKD	PM	0.1	0.1
403.CHR	Chute, CKD Truck Loadout	PM	0.1	0.1
403.CHU	Chute, Truck Loading of CKD	PM	0.1	0.1
443.CH56	Loading Spout Transfer Point (443.CH56 to collection bin 451.XA970)	PM	0.1	0.1
443.CH46	Chute Transfer Point (443.SC40 to 331.XA970)	PM	0.1	0.1
449.CH30	Chute Transfer Point (449.DM1 to 449.BC05)	PM	0.5	1.9
449.CH31	Chute Transfer Point (449.DM1 to 449.BC05)	PM	0.5	1.9
449.CH32	Chute Transfer Point (449.DM1 to 449.BC05)	PM	0.5	1.9
449.CH33	Chute Transfer Point (449.DM1 to 449.BC05)	PM	0.5	1.9
449.CH42	Duct Transfer Point (449.BC10 to 409.DB1, 409.DB2)	PM	0.4	1.7
449.HP2	Hopper, Outside Clinker Reclaim	PM	0.4	0.1
449.HP4	Transfer, Hopper to clinker reclaim chute	PM	0.1	0.1
449.T7	Transfer, end loader to crusher	PM	0.3	1.3
449.T8	Transfer, from crusher to belt	PM	0.3	1.3
449.T16	Transfer, Truck Unloading Crusher Pile	PM	5.5	0.6
533.LS10	Transfer from off-spec Clinker Bin 511.BI100 through Loading Spout 511.LS150 to Truck	PM	2.2	1.1
534.CH12	Chute Transfer Point (534.DG20 to waste bin)	PM	0.2	0.5
311.CHA	Tripper Discharge into Bins	PM	0.6	2.4
44C.BF10	Dust Collector, Pulverized Fuel Bin Vent	PM	0.1	0.1
44M.BF10	Lime injection system baghouse	PM	0.1	0.2

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SN	Description	Pollutant	lb/hr	tpy
326.BF10	Dust Collector, Raw Mill Feed System	PM	0.4	1.6
326.BF30	Dust Collector, Raw Mill Rejects	PM	0.3	1.1
327.BF10	Dust Collector, Raw Material Airslide	PM	0.1	0.3
327.BF20	Dust Collector, Raw Material Airslide	PM	0.2	0.7
327.BF30	Dust Collector, Raw Material Airslide	PM	0.2	0.8
329.BF10	Dust Collector, High Grade Limestone Bin	PM	0.2	0.5
329.BF20	Dust Collector, Alleviator	PM	0.2	0.5
403.BF3	Dust Collector, 500 Ton Silos	PM	0.3	1.3
403.BF4	Dust Collector, 1500 Ton Silo	PM	0.5	1.9
403.BF6	Dust Collector, 1500 Ton Silo	PM	0.4	1.6
403.BF7	Dust Collector, Truck Loadout DC-61	PM	0.2	0.7
403.BF8	Dust Collector, 500 Ton Silos	PM	0.3	1.3
409.BF10	Cross Over Baghouse # 1	PM	0.1	0.2
442.BF10	Dust Collector, Kiln Feed Airslide	PM	0.2	0.7
442.BF20	Dust Collector, Kiln Feed System	PM	0.2	0.5
443.BF20	Dust Collector, Cement Kiln Dust Bin	PM	0.1	0.4
449.BF10	Dust Collector, Clinker Cooler Discharge	PM	0.2	0.5
449.BF15	Dust Collector, Clinker – Loader to 449.HP2 Hopper	PM	0.1	0.3
449.BF20	Dust Collector, Clinker Bin Vents	PM	0.4	1.4
449.BF30	Dust Collector, Clinker Reclaim Elevator	PM	0.2	0.5
449.BF31	Cross Over Baghouse # 2	PM	0.1	0.2
449.BF40	Dust Collector, Clinker Dome Vent	PM	0.2	0.9
449.BF50	Dust Collector, Clinker Reclaim Conveyor Transfer	PM	0.2	0.8

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SN	Description	Pollutant	lb/hr	tpy
449.BF60	Dust Collector, Clinker Reclaim Conveyor Transfer	PM	0.2	0.6
449.BF70	Dust Collector, Clinker Reclaim Conveyor Transfer	PM	0.2	0.9
513.BF1	Dust Collector, Outside Clinker Bins Discharge	PM	0.2	0.8
514.BF1	Dust Collector on Bin #44	PM	0.2	0.9
514.BF2	Dust Collector, #2 Finish Mill	PM	0.7	3.0
514.BF3	Dust Collector, #2 Finish Mill Discharge Baghouse	PM Ethylene Glycol Diethanolamine	0.5 0.12 1.19	2.0 0.11 1.14
521.BF1	Dust Collector, West Clinker Silo Dust Collector	PM	0.6	2.6
521.BF2	Dust Collector, East Clinker Silo Dust Collector	PM	0.6	2.6
523.BF2	Dust Collector, Clinker Receiving	PM	0.7	3.0
524.BF1	Dust Collector, #4 Finish Mill Discharge Baghouse	PM Ethylene Glycol Diethanolamine	1.0 0.12 1.19	4.2 0.37 3.71
524.BF2	Dust Collector, #4 Finish Mill Baghouse	PM	1.5	6.6
531.BF10	Dust Collector, Limestone/Gypsum Belt Discharge	PM	0.2	0.7
531.BF20	Dust Collector, Limestone/Gypsum Bin Vents	PM	0.4	1.7
533.BF10	Dust Collector, Finish Mill Feed Bins Discharge	PM	0.3	1.2
533.BF20	Dust Collector, Finish Mill Feed Bin Loadout	PM	0.1	0.3
534.BF10	Dust Collector, Finish Mill Feed System	PM	0.5	2.2
534.BF20	Dust Collector, Finish Mill Recirculation System	PM	0.3	1.1

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SN	Description	Pollutant	lb/hr	tpy
535.BF10	Dust Collector, Finish Mill Discharge	PM Ethylene Glycol Diethanolamine	1.1 1.08 10.82	4.8 0.47 4.66
535.BF20	Bag Filter, Pneumatic Conveying to Storage	PM	0.1	0.3
611.BF1	Dust Collector, Rail Silos DC#24	PM	0.5	2.1
611.BF3	Dust Collector, East Rail Load Out Spout	PM	0.2	0.6
611.BF4	Dust Collector, East Rail Load Out Spout Alternate	PM	0.2	0.6
611.BF10	Dust Collector, Silos 19 and 20 Discharge to Elevator	PM	0.2	0.7
611.BF20	Dust Collector, Elevator Discharge	PM	0.2	0.9
611.BF30	Dust Collector, Outside Cement Loading to Rail	PM	0.1	0.3
611.BF40	Dust Collector, Rail Loadout Bin	PM	0.1	0.3
611.UL10	Dust Collector, Rail-to-Truck	PM	0.1	0.3
612.BF1	Dust Collector, Top #6 Kaiser Silos DC #21	PM	0.5	2.1
612.BF2	Dust Collector, Top #1 & #2 Kaiser Silo	PM	0.2	0.8
612.BF3	Dust Collector, Top #5 Kaiser Silos DC #22	PM	0.2	0.7
612.BF4	Dust Collector, Top #11 Kaiser Silos DC #30	PM	0.2	0.7
612.BF5	Dust Collector, Top of Packhouse DC #26	PM	0.7	3.0
621.BF1	Dust Collector, Top of #15 Delta Silo DC #23	PM	0.6	2.5
621.BF2	Dust Collector, #1 through #4 Bins, South Truck Loadout DC #28	PM	0.5	1.9
621.BF3	Dust Collector, South Truck Loadout #1 through #4 Bins DC #31/32	PM	0.2	0.8
621.BF5	Dust Collector, Top of #26 & #27 Truck Loadout DC #49	PM	0.7	3.0

SN	Description	Pollutant	lb/hr	tpy
621.BF6(E)	North Truck Loadout Spout #27 Dust Collector	PM	0.1	0.4
621.BF7(W)	North Truck Loadout Spout #26 Dust Collector	PM	0.1	0.4
621.BF8	South Truck Loadout Dust Collector #5 Bin	PM	0.2	0.9
621.BF9	Delta Silos Pump Hopper Baghouse	PM	0.1	0.3
631.BF10	Dust Collector, East Truck Load Silo 1	PM	0.3	1.2
631.BF15	Dust Collector, West Truck Load Silo 2	PM	0.3	1.2
631.BF20	Dust Collector, South Load Out Spout	PM	0.1	0.4
631.BF25	Dust Collector, Central Load Out Spout	PM	0.1	0.4
631.BF30	Dust Collector, North Load Out Spout	PM	0.1	0.4

40 C.F.R. § 63 Subpart LLL

3. The owner or operator of an open clinker storage pile must prepare, and operate in accordance with, the fugitive dust emissions control measures, described in their operation and maintenance plan (see §63.1347 of 40 C.F.R. Part 63, Subpart LLL), that is appropriate for the site conditions as specified in paragraphs (c)(1) through (3) of §63.1343. The operation and maintenance plan must also describe the measures that will be used to minimize fugitive dust emissions from piles of clinker, such as accidental spillage, that are not part of open clinker storage piles. [Rule 19.304 and 40 C.F.R. § 63.1343(c)]
 - a. The operation and maintenance plan must identify and describe the location of each current or future open clinker storage pile and the fugitive dust emissions control measures the owner or operator will use to minimize fugitive dust emissions from each open clinker storage pile. [Rule 19.304 and 40 C.F.R. § 63.1343(c)(1)]
 - b. For open clinker storage piles, the operations and maintenance plan must specify that one or more of the following control measures will be used to minimize to the greatest extent practicable fugitive dust from open clinker storage piles: Locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents, use of a wind barrier, compaction, use of tarpaulin or other equally effective cover or use of a vegetative cover. You must select, for inclusion in the operations and maintenance plan, the fugitive dust control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan must also explain

- how the measure or measures selected are applicable and appropriate for site conditions. In addition, the plan must be revised as needed to reflect any changing conditions at the source. [Rule 19.304 and 40 C.F.R. § 63.1343(c)(2)]
- c. Temporary piles of clinker that result from accidental spillage or clinker storage cleaning operations must be cleaned up within 3 days. [Rule 19.304 and 40 C.F.R. § 63.1343(c)(3)]
4. The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading system; raw and finish mills; and each existing raw material dryer, at a facility which is a major source subject to the provisions of this subpart must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of 10 percent. [Rule 19.304 and 40 C.F.R. § 63.1345]
5. You must prepare, for each affected source subject to the provisions of 40 C.F.R. Part 63, Subpart LLL, a written operations and maintenance plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit and must include the following information: [Rule 19.304 and 40 C.F.R. § 63.1347(a)]
- a. Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emissions limits and operating limits, including fugitive dust control measures for open clinker piles, of §63.1343 through §63.1348. Your operations and maintenance plan must address periods of startup and shutdown; [Rule 19.304 and 40 C.F.R. § 63.1347(a)(1)]
- b. Corrective actions to be taken when required by paragraph §63.1350(f)(3); [Rule 19.304 and 40 C.F.R. § 63.1347(a)(2)]
- c. Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year. [Rule 19.304 and 40 C.F.R. § 63.1347(a)(3)]
6. Failure to comply with any provision of the operations and maintenance plan developed in accordance with §63.1347 is a violation of the standard. [Rule 19.304 and 40 C.F.R. § 63.1347(b)]
7. For an affected source subject to 40 C.F.R. Part 63, Subpart LLL, you must demonstrate compliance with the emissions standards and operating limits by using the test methods and procedures in §63.1349 and §63.7. Any cement kiln that has been subject to the requirements of subpart CCCC or subpart DDDD of 40 C.F.R. Part 60, and is now electing to cease burning nonhazardous solid waste and become subject to this subpart, must meet all the initial compliance testing requirements each time it becomes subject to this subpart, even if it was previously subject to 40 C.F.R. Part 63, Subpart LLL.
- Note: The first day of the 30 operating day performance test is the first day after the compliance date following completion of the field testing and data collection that demonstrates that the CPMS or CEMS has satisfied the relevant CPMS performance

evaluation or CEMS performance specification (e.g., PS 2, 12A, or 12B) acceptance criteria. The performance test period is complete at the end of the 30th consecutive operating day. See § 63.1341 for definition of operating day and § 63.1348(b)(1) for the CEMS operating requirements. The source has the option of performing the compliance test earlier than the compliance date if desired. [Rule 19.304 and 40 C.F.R. § 63.1348(a)]

8. If you are subject to the limitations on opacity under §63.1345, you must demonstrate compliance with the opacity emissions standards by using the performance test methods and procedures in §63.1349(b)(2). Use the maximum 6-minute average opacity exhibited during the performance test period to determine whether the affected source is in compliance with the standard. [Rule 19.304 and 40 C.F.R. § 63.1348(a)(2)]
9. If you are subject to the limitations on opacity under §63.1345, you must demonstrate compliance using the monitoring methods and procedures in §63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. You must initiate corrective actions within one hour of detecting visible emissions above the applicable limit. [Rule 19.304 and 40 C.F.R. § 63.1348(b)(3)]
 - a. If you install a COMS in lieu of conducting the daily visible emissions testing, you must demonstrate compliance using a COMS such that it is installed, operated, and maintained in accordance with the requirements of §63.1350(f)(4)(i). [Rule 19.304 and 40 C.F.R. § 63.1348(b)(3)(i)]
 - b. If you install a BLDS on a raw mill or finish mill in lieu of conducting the daily visible emissions testing, you must demonstrate compliance using a BLDS that is installed, operated, and maintained in accordance with the requirements of §63.1350(f)(4)(ii). [Rule 19.304 and 40 C.F.R. § 63.1348(b)(3)(ii)]
10. If you plan to undertake a change in operations that may adversely affect compliance with an applicable standard, operating limit, or parametric monitoring value under 40 C.F.R. Part 63, Subpart LLL, the source must conduct a performance test as specified in §63.1349(b). [Rule 19.304 and 40 C.F.R. § 63.1348(c)(1)]
11. In preparation for and while conducting a performance test required in §63.1349(b), you may operate under the planned operational change conditions for a period not to exceed 360 hours, provided that the conditions in (c)(2)(i) through (c)(2)(iv) of §63.1348 are met. You must submit temperature and other monitoring data that are recorded during the pretest operations. [Rule 19.304 and 40 C.F.R. § 63.1348(c)(2)]
 - a. You must provide the Administrator written notice at least 60 days prior to undertaking an operational change that may adversely affect compliance with an applicable standard under this subpart for any source, or as soon as practicable where 60 days advance notice is not feasible. Notice provided under this paragraph must include a description of the planned change, the emissions standards that may be affected by the change, and a schedule for completion of the performance test required under paragraph (c)(1) of §63.1348, including when

- the planned operational change period would begin. [Rule 19.304 and 40 C.F.R. § 63.1348(c)(2)(i)]
- b. The performance test results must be documented in a test report according to §63.1349(a). [Rule 19.304 and 40 C.F.R. § 63.1348(c)(2)(ii)]
 - c. A test plan must be made available to the Administrator prior to performance testing, if requested. [Rule 19.304 and 40 C.F.R. § 63.1348(c)(2)(iii)]
 - d. The performance test must be completed within 360 hours after the planned operational change period begins. [Rule 19.304 and 40 C.F.R. § 63.1348(c)(2)(iv)]
12. At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Rule 19.304 and 40 C.F.R. § 63.1348(d)]
13. You must document performance test results in complete test reports that contain the information required by paragraphs (a)(1) through (10) of §63.1349, as well as all other relevant information. As described in §63.7(c)(2)(i), you must make available to the Administrator prior to testing, if requested, the site-specific test plan to be followed during performance testing. For purposes of determining exhaust gas flow rate to the atmosphere from an alkali bypass stack or a coal mill stack, you must either install, operate, calibrate and maintain an instrument for continuously measuring and recording the exhaust gas flow rate according to the requirements in paragraphs §63.1350(n)(1) through (10) of 40 C.F.R. Part 63, Subpart LLL or use the maximum design exhaust gas flow rate. For purposes of determining the combined emissions from kilns equipped with an alkali bypass or that exhaust kiln gases to a coal mill that exhausts through a separate stack, instead of installing a CEMS on the alkali bypass stack or coal mill stack, you may use the results of the initial and subsequent performance test to demonstrate compliance with the relevant emissions limit. [Rule 19.304 and 40 C.F.R. § 63.1349(a)]
- a. A brief description of the process and the air pollution control system; [Rule 19.304 and 40 C.F.R. § 63.1349(a)(1)]
 - b. Sampling location description(s); [Rule 19.304 and 40 C.F.R. § 63.1349(a)(2)]
 - c. A description of sampling and analytical procedures and any modifications to standard procedures; [Rule 19.304 and 40 C.F.R. § 63.1349(a)(3)]
 - d. Test results; [Rule 19.304 and 40 C.F.R. § 63.1349(a)(4)]
 - e. Quality assurance procedures and results; [Rule 19.304 and 40 C.F.R. § 63.1349(a)(5)]
 - f. Records of operating conditions during the performance test, preparation of standards, and calibration procedures; [Rule 19.304 and 40 C.F.R. § 63.1349(a)(6)]

- g. Raw data sheets for field sampling and field and laboratory analyses; [Rule 19.304 and 40 C.F.R. § 63.1349(a)(7)]
 - h. Documentation of calculations; [Rule 19.304 and 40 C.F.R. § 63.1349(a)(8)]
 - i. All data recorded and used to establish parameters for monitoring; [Rule 19.304 and 40 C.F.R. § 63.1349(a)(9)]
 - j. Any other information required by the performance test method. [Rule 19.304 and 40 C.F.R. § 63.1349(a)(10)]
- 14. If you are subject to limitations on opacity under this subpart, you must conduct opacity tests in accordance with Method 9 of appendix A-4 to part 60 of Chapter 40. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of paragraphs (b)(2)(i) through (b)(2)(ii) of §63.1349 apply. For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [Rule 19.304 and 40 C.F.R. § 63.1349(b)(2)]
 - a. There are no individual readings greater than 10 percent opacity; [Rule 19.304 and 40 C.F.R. § 63.1349(b)(2)(i)]
 - b. There are no more than three readings of 10 percent for the first 1-hour period. [Rule 19.304 and 40 C.F.R. § 63.1349(b)(2)(ii)]
- 15. You must submit the information specified in paragraphs (d)(1) and (2) of §63.1349 no later than 60 days following the initial performance test. All reports must be signed by a responsible official. [Rule 19.304 and 40 C.F.R. § 63.1349(d)(1)]
 - a. The initial performance test data as recorded under paragraph (b) of §63.1349. [Rule 19.304 and 40 C.F.R. § 63.1349(d)(1)(i)]
 - b. The values for the site-specific operating limits or parameters established pursuant to paragraphs (b)(1), (3), (6), and (7) of §63.1349, as applicable, and a description, including sample calculations, of how the operating parameters were established during the initial performance test. [Rule 19.304 and 40 C.F.R. § 63.1349(d)(1)(ii)]
- 16. Conduct performance tests under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [Rule 19.304 and 40 C.F.R. § 63.1349(e)]
- 17. If you are subject to a limitation on opacity under §63.1345, you must conduct required opacity monitoring in accordance with the provisions of paragraphs (f)(1)(i) through (vii) of §63.1350 and in accordance with your monitoring plan developed under §63.1350(p). You must also develop an opacity monitoring plan in accordance with paragraphs (p)(1) through (4) and paragraph (o)(5), if applicable, of §63.1350. [Rule 19.304 and 40 C.F.R. § 63.1350(f)]

18. You must conduct a monthly 10-minute visible emissions test of each affected source in accordance with Method 22 of appendix A-7 to part 60 of Chapter 40. The performance test must be conducted while the affected source is in operation. [Rule 19.304 and 40 C.F.R. § 63.1350(f)(1)(i)]
 - a. If no visible emissions are observed in six consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of performance testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, you must resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. [Rule 19.304 and 40 C.F.R. § 63.1350(f)(1)(ii)]
 - b. If no visible emissions are observed during the semi-annual test for any affected source, you may decrease the frequency of performance testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual performance test, the owner or operator must resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. [Rule 19.304 and 40 C.F.R. § 63.1350(f)(1)(iii)]
 - c. If visible emissions are observed during any Method 22 performance test, of appendix A-7 to part 60 of Chapter 40, you must conduct 30 minutes of opacity observations, recorded at 15-second intervals, in accordance with Method 9 of appendix A-4 to part 60 of Chapter 40. The Method 9 performance test, of appendix A-4 to part 60 of Chapter 40, must begin within 1 hour of any observation of visible emissions. [Rule 19.304 and 40 C.F.R. § 63.1350(f)(1)(iv)]
 - d. Any totally enclosed conveying system transfer point, regardless of the location of the transfer point is not required to conduct Method 22 visible emissions monitoring under this paragraph. The enclosures for these transfer points must be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. [Rule 19.304 and 40 C.F.R. § 63.1350(f)(1)(v)]
 - e. If any partially enclosed or unenclosed conveying system transfer point is located in a building, you must conduct a Method 22 performance test, of appendix A-7 to part 60 of Chapter 40, according to the requirements of paragraphs (f)(1)(i) through (iv) of §63.1350 for each such conveying system transfer point located within the building, or for the building itself, according to paragraph (f)(1)(vii) of §63.1350. [Rule 19.304 and 40 C.F.R. § 63.1350(f)(1)(vi)]
 - f. If visible emissions from a building are monitored, the requirements of paragraphs (f)(1)(i) through (f)(1)(iv) of §63.1350 apply to the monitoring of the building, and you must also test visible emissions from each side, roof, and vent of the building for at least 10 minutes. [Rule 19.304 and 40 C.F.R. § 63.1350(f)(1)(vii)]
19. For a raw mill or finish mill, you must monitor opacity by conducting daily visible emissions observations of the mill sweep and air separator PM control devices (PMCD) of these affected sources in accordance with the procedures of Method 22 of

appendix A-7 to part 60 of this chapter. The duration of the Method 22 performance test must be 6 minutes. [Rule 19.304 and 40 C.F.R. § 63.1350(f)(2)(i)]

- a. Within 24 hours of the end of the Method 22 performance test in which visible emissions were observed, the owner or operator must conduct a follow up Method 22 performance test of each stack from which visible emissions were observed during the previous Method 22 performance test. [Rule 19.304 and 40 C.F.R. § 63.1350(f)(2)(ii)]
 - b. If visible emissions are observed during the follow-up Method 22 performance test required by paragraph (f)(2)(ii) of this section from any stack from which visible emissions were observed during the previous Method 22 performance test required by paragraph (f)(2)(i) of the section, you must then conduct an opacity test of each stack from which emissions were observed during the follow up Method 22 performance test in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The duration of the Method 9 test must be 30 minutes. [Rule 19.304 and 40 C.F.R. § 63.1350(f)(2)(iii)]
20. If visible emissions are observed during any Method 22 visible emissions test conducted under paragraphs (f)(1) or (2) of §63.1350, you must initiate, within one-hour, the corrective actions specified in your operation and maintenance plan as required in §63.1347. [Rule 19.304 and 40 C.F.R. § 63.1350(f)(3)]
21. If you choose to install a BLDS in lieu of conducting the daily visible emissions testing required under paragraph (f)(2) of this section, the requirements in paragraphs (m)(1) through (m)(4), (m)(10) and (m)(11) of this section apply. [Rule 19.304 and 40 C.F.R. § 63.1350(f)(4)(ii)]
22. If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a BLDS as specified in paragraphs (m)(10)(i) through (viii) of this section. [Rule 19.304 and 40 C.F.R. § 63.1350(m)(10)]
- a. You must install and operate a BLDS for each exhaust stack of the fabric filter. [Rule 19.304 and 40 C.F.R. § 63.1350(m)(10)(i)]
 - b. Each BLDS must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997. [Rule 19.304 and 40 C.F.R. § 63.1350(m)(10)(ii)]
 - c. The BLDS must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 or fewer milligrams per actual cubic meter. [Rule 19.304 and 40 C.F.R. § 63.1350(m)(10)(iii)]
 - d. The BLDS sensor must provide output of relative or absolute PM loadings. [Rule 19.304 and 40 C.F.R. § 63.1350(m)(10)(iv)]
 - e. The BLDS must be equipped with a device to continuously record the output signal from the sensor. [Rule 19.304 and 40 C.F.R. § 63.1350(m)(10)(v)]
 - f. The BLDS must be equipped with an alarm system that will alert an operator automatically when an increase in relative PM emissions over a preset level is

detected. The alarm must be located such that the alert is detected and recognized easily by an operator. [Rule 19.304 and 40 C.F.R. § 63.1350(m)(10)(vi)]

23. For each BLDS, the owner or operator must initiate procedures to determine the cause of every alarm within 8 hours of the alarm. The owner or operator must alleviate the cause of the alarm within 24 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following: [Rule 19.304 and 40 C.F.R. § 63.1350(m)(11)]
 - a. Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions; [Rule 19.304 and 40 C.F.R. § 63.1350(m)(11)(i)]
 - b. Sealing off defective bags or filter media; [Rule 19.304 and 40 C.F.R. § 63.1350(m)(11)(ii)]
 - c. Replacing defective bags or filter media or otherwise repairing the control device; [Rule 19.304 and 40 C.F.R. § 63.1350(m)(11)(iii)]
 - d. Sealing off a defective fabric filter compartment; [Rule 19.304 and 40 C.F.R. § 63.1350(m)(11)(iv)]
 - e. Cleaning the BLDS probe or otherwise repairing the BLDS; [Rule 19.304 and 40 C.F.R. § 63.1350(m)(11)(v)]
 - f. Shutting down the process producing the PM emissions. [Rule 19.304 and 40 C.F.R. § 63.1350(m)(11)(vi)]
24. If you demonstrate compliance with any applicable emissions limit through performance stack testing or other emissions monitoring, you must develop a site-specific monitoring plan according to the requirements in paragraphs (p)(1) through (4) of §63.1350. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under paragraph (o) of §63.1350 and §63.8(f). If you use a BLDS, you must also meet the requirements specified in paragraph (p)(5) of §63.1350. [Rule 19.304 and 40 C.F.R. § 63.1350(p)]
25. For each CMS required in this section, you must develop, and submit to the permitting authority for approval upon request, a site-specific monitoring plan that addresses paragraphs (p)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan, if requested, at least 30 days before your initial performance evaluation of your CMS. [Rule 19.304 and 40 C.F.R. § 63.1350(p)(1)]
 - a. Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device); [Rule 19.304 and 40 C.F.R. § 63.1350(p)(1)(i)]
 - b. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and [Rule 19.304 and 40 C.F.R. § 63.1350(p)(1)(ii)]
 - c. Performance evaluation procedures and acceptance criteria (e.g., calibrations). [Rule 19.304 and 40 C.F.R. § 63.1350(p)(1)(iii)]

26. In your site-specific monitoring plan, you must also address paragraphs (p)(2)(i) through (iii) of this section. [Rule 19.304 and 40 C.F.R. § 63.1350(p)(2)]
 - a. Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (c)(3), and (c)(4)(ii); [Rule 19.304 and 40 C.F.R. § 63.1350(p)(2)(i)]
 - b. Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and [Rule 19.304 and 40 C.F.R. § 63.1350(p)(2)(ii)]
 - c. Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i). [Rule 19.304 and 40 C.F.R. § 63.1350(p)(2)(iii)]
27. You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan. [Rule 19.304 and 40 C.F.R. § 63.1350(p)(3)]
28. You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan. [Rule 19.304 and 40 C.F.R. § 63.1350(p)(4)]
29. Each monitoring plan must describe the items in paragraphs (p)(5)(i) through (v) of this section. At a minimum, you must retain records related to the site-specific monitoring plan and information discussed in paragraphs (m)(1) through (4), (m)(10) and (11) of this section for a period of 5 years, with at least the first 2 years on-site; [Rule 19.304 and 40 C.F.R. § 63.1350(p)(5)]
 - a. Installation of the BLDS; [Rule 19.304 and 40 C.F.R. § 63.1350(p)(5)(i)]
 - b. Initial and periodic adjustment of the BLDS, including how the alarm set-point will be established; [Rule 19.304 and 40 C.F.R. § 63.1350(p)(5)(ii)]
 - c. Operation of the BLDS, including quality assurance procedures; [Rule 19.304 and 40 C.F.R. § 63.1350(p)(5)(iii)]
 - d. How the BLDS will be maintained, including a routine maintenance schedule and spare parts inventory list; [Rule 19.304 and 40 C.F.R. § 63.1350(p)(5)(iv)]
 - e. How the BLDS output will be recorded and stored. [Rule 19.304 and 40 C.F.R. § 63.1350(p)(5)(v)]
30. The compliance date for existing sources with the requirements for open clinker storage piles in §63.1343(c) is February 12, 2014. [Rule 19.304 and 40 C.F.R. § 63.1351(e)]
31. The notification provisions of 40 C.F.R. Part 63, subpart A that apply and those that do not apply to owners and operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any State requires a notice that contains all of the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of §63.1353 for that notification. [Rule 19.304 and 40 C.F.R. § 63.1353(a)]

32. Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in §63.9 as follows: [Rule 19.304 and 40 C.F.R. § 63.1353(b)]
- a. Initial notifications as required by §63.9(b) through (d). For the purposes of this subpart, a Title V or 40 C.F.R. Part 70 permit application may be used in lieu of the initial notification required under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under part 70 of Chapter 40 and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification. [Rule 19.304 and 40 C.F.R. § 63.1353(b)(1)]
 - b. Notification of performance tests, as required by §63.7 and §63.9(e). [Rule 19.304 and 40 C.F.R. § 63.1353(b)(2)]
 - c. Notification of opacity and visible emission observations required by §63.1349 in accordance with §63.6(h)(5) and §63.9(f). [Rule 19.304 and 40 C.F.R. § 63.1353(b)(3)]
 - d. Notification, as required by §63.9(g), of the date that the continuous emission monitor performance evaluation required by §63.8(e) is scheduled to begin.
 - e. Notification of compliance status, as required by §63.9(h). [Rule 19.304 and 40 C.F.R. § 63.1353(b)(4)]
 - f. Within 48 hours of an exceedance that triggers retesting to establish compliance and new operating limits, notify the appropriate permitting agency of the planned performance tests. The notification requirements of §63.7(b) and §63.9(e) do not apply to retesting required for exceedances under this subpart. [Rule 19.304 and 40 C.F.R. § 63.1353(b)(5)]
33. The reporting provisions of subpart A of 40 C.F.R. Part 63 that apply and those that do not apply to owners or operators of affected sources subject to this subpart are listed in Table 1 of 40 C.F.R. Part 63, Subpart LLL. If any State requires a report that contains all of the information required in a report listed in this section, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of §63.1354 for that report. [Rule 19.304 and 40 C.F.R. § 63.1354(a)]
34. As required by § 63.10(d)(2), the owner or operator shall report the results of performance tests as part of the notification of compliance status. [Rule 19.304 and 40 C.F.R. 63.1354(b)(1)]
35. As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [Rule 19.304 and 40 C.F.R. § 63.1354(b)(2)]

36. The owner or operator of an affected source shall comply with the reporting requirements specified in § 63.10 of the general provisions of this part 63, subpart A as follows: [Rule 19.304 and 40 C.F.R. § 63.1354(b)]
- a. The owner or operator shall submit a summary report semiannually to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx).) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in § 63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. The reports must be submitted by the deadline specified in this subpart, regardless of the method in which the reports are submitted. The report must contain the information specified in § 63.10(e)(3)(vi). In addition, the summary report shall include: [Rule 19.304 and 40 C.F.R. § 63.1354(b)(9)]
 - i. Any and all failures to comply with any provision of the operation and maintenance plan developed in accordance with § 63.1347(a). [Rule 19.304 and 40 C.F.R. § 63.1354(b)(9)(v)]
 - ii. In response to each violation of an emissions standard or established operating parameter limit, the date, duration and description of each violation and the specific actions taken for each violation including inspections, corrective actions and repeat performance tests and the results of those actions. [Rule 19.304 and 40 C.F.R. § 63.1354(b)(9)(vii)]
 - iii. All reports required by this subpart not subject to the requirements in paragraphs (b)(9) introductory text and (b)(9)(viii) of this section must be sent to the Administrator at the appropriate address listed in § 63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (b)(9) introductory text and (b)(9)(viii) of this section in paper format. [Rule 19.304 and 40 C.F.R. § 63.1354(b)(9)(x)]
37. For each failure to meet a standard or emissions limit caused by a malfunction at an affected source, you must report the failure in the semi-annual compliance report required by §63.1354(b)(9). The report must contain the date, time and duration, and the cause of each event (including unknown cause, if applicable), and a sum of the number of events in the reporting period. The report must list for each event the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the emission limit for which the source failed to meet a standard, and a description of the method used to estimate the emissions. The report must also

include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.1348(d), including actions taken to correct a malfunction. [Rule 19.304 and 40 C.F.R. § 63.1354(c)]

38. The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [Rule 19.304 and 40 C.F.R. § 63.1355(a)]
39. The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3) of 40 C.F.R. Part 63; and [Rule 19.304 and 40 C.F.R. § 63.1355(b)]
 - a. All documentation supporting initial notifications and notifications of compliance status under §63.9; [Rule 19.304 and 40 C.F.R. § 63.1355(b)(1)]
 - b. All records of applicability determination, including supporting analyses; and [Rule 19.304 and 40 C.F.R. § 63.1355(b)(2)]
 - c. If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [Rule 19.304 and 40 C.F.R. § 63.1355(b)(3)]
40. You must keep records of the date, time and duration of each malfunction that causes an affected source to fail to meet an applicable standard; if there was also a monitoring malfunction, the date, time and duration of the monitoring malfunction; the record must list the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the standard for which the source failed to meet a standard, and a description of the method used to estimate the emissions. [Rule 19.304 and 40 C.F.R. § 63.1355(g)(1)]
41. You must keep records of actions taken during periods of malfunction to minimize emissions in accordance with §63.1348(d) including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [Rule 19.304 and 40 C.F.R. § 63.1355(g)(2)]
42. For each exceedance from an emissions standard or established operating parameter limit, you must keep records of the date, duration and description of each exceedance and the specific actions taken for each exceedance including inspections, corrective actions and repeat performance tests and the results of those actions. [Rule 19.304 and 40 C.F.R. § 63.1355(h)]

Ash Grove Cement Company

Permit #: 0075-AOP-R26

AFIN: 41-00001

43. Table 1 to this subpart provides cross references to the 40 C.F.R. part 63, subpart A, general provisions, indicating the applicability of the general provisions requirements to subpart LLL. [Rule 19.304 and 40 C.F.R. § 63.1342]

Uncontrolled Material Handling Emissions Points

Source Description

Emissions from these transfer points located throughout the facility are not controlled.

Specific Conditions

- UMH-1. The permittee shall not exceed the emission rates set forth in the following table. Emission rates are based on maximum capacity of the equipment and continuous operation. Compliance shall be demonstrated through compliance with Plantwide Conditions 5 and 9. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
311.CH1	Chute, Secondary Crusher Discharge	PM ₁₀	0.1	0.1
311.CH10	Chute, Limestone Hopper to 311.AF6	PM ₁₀	0.1	0.1
311.CH11	Chute, 311.AF6 to Belt Conveyor 311.BC1	PM ₁₀	0.1	0.1
311.CH15	Chute, Gypsum Hopper to 311.AF5	PM ₁₀	0.1	0.1
311.CH16	Chute, 311.AF5 to Belt Conveyor 311.BC1	PM ₁₀	0.1	0.1
311.CHC	Chute, Discharge into Secondary Crusher	PM ₁₀	0.1	0.1
41A.T10*	Transfer, Rail and Truck Unloading into 41A.HP10	PM ₁₀	0.4	0.1
44A.T10*	Transfer, Loader Unloading into Hopper 44A.HP10	PM ₁₀	0.2	0.1
403.T2	Transfer, Trailer Unloading of CKD	PM ₁₀	0.1	0.1
449.T4	Transfer, Loader to 449.HP2	PM ₁₀	0.2	0.1
449.T5	Transfer, clinker discharge to ground	PM ₁₀	0.5	0.3
449.T6	Transfer, Loader to clinker chute hopper	PM ₁₀	0.4	0.3
449.T16	Transfer, Truck Unloading Crusher Pile	PM ₁₀	1.9	0.2

*also subject to Subpart Y as found in Specific Conditions COAL-3 through COAL-7

- UMH-2. The permittee shall not exceed the emission rates set forth in the following table. Emission rates are based on maximum capacity of the equipment and continuous

operation. Compliance shall be demonstrated through compliance with Plantwide Conditions 5 and 9. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
311.CH1	Chute, Secondary Crusher Discharge	PM	0.1	0.2
311.CH10	Chute, Limestone Hopper to 311.AF6	PM	0.1	0.1
311.CH11	Chute, 311.AF6 to Belt Conveyor 311.BC1	PM	0.1	0.1
311.CH15	Chute, Gypsum Hopper to 311.AF5	PM	0.1	0.1
311.CH16	Chute, 311.AF5 to Belt Conveyor 311.BC1	PM	0.1	0.1
311.CHC	Chute, Discharge into Secondary Crusher	PM	0.1	0.2
41A.T10*	Transfer, Rail and Truck Unloading into 41A.HP10	PM	1.0	0.2
44A.T10*	Transfer, Loader Unloading into Hopper 44A.HP10	PM	0.6	0.2
403.T2	Transfer, Trailer Unloading of CKD	PM	0.1	0.1
449.T4	Transfer, Loader to 449.HP2	PM	0.4	0.1
449.T5	Transfer, clinker discharge to ground	PM	1.1	0.5
449.T6	Transfer, Loader to clinker chute hopper	PM	0.7	0.5
449.T16	Transfer, Truck Unloading Crusher Pile	PM	5.5	0.6

*also subject to Subpart Y as found in Specific Conditions COAL-3 through COAL-7

- UMH-3. The opacity from sources 311.CH1 and 311.CHC shall not exceed 40%. Compliance with the opacity standard shall be demonstrated through compliance with Specific Condition UMH-5. [Rule 19.503 and 40 C.F.R. § 52 Subpart E]
- UMH-4. The opacity from sources 311.CH10, 311.CH11, 311.CH15, 311.CH16, 403.T2, 449.T4, 449.T5, 449.T6, and 449.T16 shall not exceed 20%. Compliance with the opacity standard shall be demonstrated through compliance with Specific Condition UMH-5. [Rule 19.503 and 40 C.F.R. § 52 Subpart E]
- UMH-5. Weekly visible emission observations shall be used as a method of compliance verification for the opacity limits assigned for these sources. The weekly

observations shall be conducted by someone familiar with the facility's visible emissions.

- a. If during the observations, visible emissions are detected which appear to be in excess of the permitted opacity limit, the permittee shall:
 - i. Take immediate action to identify the cause of the visible emissions,
 - ii. Implement corrective action, and
 - iii. If excessive visible emissions are still detected, an opacity reading shall be conducted in accordance with EPA Reference Method 9 for point sources and in accordance with EPA Method 22 for non-point sources. This reading shall be conducted by a person trained and certified in the reference method. If the opacity reading exceeds the permitted limit, further corrective measures shall be taken.
 - iv. If no excessive visible emissions are detected, the incident shall be noted in the records as described below.
- b. The permittee shall maintain records related to all visible emission observations and Method 9 readings. These records shall be updated on an as-performed basis. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. These records shall contain:
 - i. The time and date of each observation/reading,
 - ii. The results of the observations,
 - iii. The cause of any observed exceedance of opacity limits, corrective actions taken, and results of the reassessment, and
 - iv. The name of the person conducting the observation/reading.

[Rule 18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Dust Collector, Primary Crusher & Secondary Crusher - SN-211.BF1 & 311.BF1

Source Description

Quarried chalk is crushed at SN-211.BF1 (primary crusher) before being hauled to the raw materials storage area. This source was installed prior to the applicability date of NSPS Subpart OOO. SN-311.BF1 (secondary crusher) is used to crush some of the raw materials used at this facility. Chalk and gypsum are crushed and then transported to the mill building by a conveyor belt.

Specific Conditions

EXEMPT-1. The permittee shall not exceed the emission rates set forth in the following table. Emission rates are based on maximum capacity of the equipment and continuous operation. Compliance shall be demonstrated through compliance with Plantwide Conditions 5 and 9. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
211.BF1	Dust Collector, Primary Crusher	PM ₁₀	0.5	1.9
311.BF1	Dust Collector, Secondary Crusher	PM ₁₀	0.2	0.8

EXEMPT-2. The permittee shall not exceed the emission rates set forth in the following table. Emission rates are based on maximum capacity of the equipment and continuous operation. Compliance shall be demonstrated through compliance with Plantwide Conditions 5 and 9. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
211.BF1	Dust Collector, Primary Crusher	PM	0.5	1.9
311.BF1	Dust Collector, Secondary Crusher	PM	0.2	0.8

EXEMPT-3. Visible emissions from these sources shall not exceed 20% opacity. Compliance shall be demonstrated through compliance with Specific Condition EXEMPT-4. [Rule 19.501 and 40 C.F.R. § 52 Subpart E]

EXEMPT-4. Weekly visible emission observations shall be used as a method of compliance verification for the opacity limits assigned for these sources. The weekly observations shall be conducted by someone familiar with the facility's visible emissions.

- a. If during the observations, visible emissions are detected which appear to be in excess of the permitted opacity limit, the permittee shall:
 - i. Take immediate action to identify the cause of the visible emissions,
 - ii. Implement corrective action, and
 - iii. If excessive visible emissions are still detected, an opacity reading shall be conducted in accordance with EPA Reference Method 9 for point sources and in accordance with EPA Method 22 for non-point sources. This reading shall be conducted by a person trained and certified in the reference method. If the opacity reading exceeds the permitted limit, further corrective measures shall be taken.
 - iv. If no excessive visible emissions are detected, the incident shall be noted in the records as described below.
- b. The permittee shall maintain records related to all visible emission observations and Method 9 readings. These records shall be updated on an as-performed basis. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. These records shall contain:
 - i. The time and date of each observation/reading,
 - ii. The results of the observations,
 - iii. The cause of any observed exceedance of opacity limits, corrective actions taken, and results of the reassessment, and
 - iv. The name of the person conducting the observation/reading.

[Rule 18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Storage Piles

Source Description

Raw materials and intermediates are stored in piles at various locations throughout the facility.

Specific Conditions

PILE-1. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Conditions PILE-3 through PILE-10, PILE-14 and PILE-15. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
41A.P1	A-frame Coal/Coke Pile	PM ₁₀	0.1	0.1
41A.P2	A-frame Gypsum Pile	PM ₁₀	0.1	0.1
41A.P3	A-frame Limestone Pile	PM ₁₀	0.1	0.1
41A.P7	Outside Coal/Coke Pile	PM ₁₀	0.4	1.8
213.P2	Iron Source Pile	PM ₁₀	0.1	0.3
403.P1	Pile, CKD	PM ₁₀	1.4	5.8
449.P1	Pile, Outside Clinker Storage	PM ₁₀	0.1	0.3
449.P2	Crusher Pile	PM ₁₀	0.1	0.1
111.P1	Outside Limestone Pile, Quarry	PM ₁₀	0.2	0.9
111.P2	South Limestone Pile, Quarry	PM ₁₀	0.1	0.4
111.P3	Outside Limestone Pile, Quarry	PM ₁₀	0.1	0.4

PILE-2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Conditions PILE-3 through PILE-10, PILE-14 and PILE-15. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
41A.P1	A-frame Coal/Coke Pile	PM	0.1	0.2
41A.P2	A-frame Gypsum Pile	PM	0.1	0.1

SN	Description	Pollutant	lb/hr	tpy
41A.P3	A-frame Limestone Pile	PM	0.1	0.1
41A.P7	Outside Coal/Coke Pile	PM	0.8	3.6
213.P2	Iron Source Pile	PM	0.2	0.5
403.P1	Pile, CKD	PM	2.7	11.5
449.P1	Pile, Outside Clinker Storage	PM	0.2	0.6
449.P2	Crusher Pile	PM ₁₀	0.1	0.2
111.P1	Outside Limestone Pile, Quarry	PM	0.4	1.7
111.P2	South Limestone Pile, Quarry	PM	0.2	0.8
111.P3	Outside Limestone Pile, Quarry	PM	0.2	0.8

PILE-3. The permittee shall maintain the area of SN-403.P1 at or below 871,200 ft² or 20.0 acres. Compliance shall be demonstrated by surveying the boundary perimeter of this pile. The permittee shall demarcate and record the perimeter of this pile with a global positioning system (GPS) instrument. A minimum of once per calendar year, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 19.705, Rule 18.1004, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

PILE-4. The permittee shall maintain the area of SN-449.P1 at or below 174,240 ft² or 4.0 acres. The permittee shall demarcate and record the perimeter of this pile with a global positioning system (GPS) instrument. A minimum of once per calendar year, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 19.705, Rule 18.1004, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

PILE-5. The permittee shall maintain the area of SN-213.P2 at or below 87,120 ft² or 2.0 acres. Compliance shall be demonstrated by surveying the boundary perimeter of this pile. The permittee shall demarcate and record the perimeter of this pile with a global positioning system (GPS) instrument. A minimum of once per calendar year, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. These records shall be kept on site and made

available to Division of Environmental Quality personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 19.705, Rule 18.1004, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

- PILE-6. The permittee shall maintain the area of the A-frame storage pile for Emission Points 41A.P1, 41A.P2 and 41A.P3 at or below 40,143 ft², or 0.92 acres. Compliance shall be demonstrated by surveying the boundary perimeter of this pile. A minimum of once per calendar year, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the A-frame structure. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 19.705, Rule 18.1004, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- PILE-7. The permittee shall maintain the area of SN-449.P2 at or below 43,560 ft² or 1.0 acre. The permittee shall demarcate and record the perimeter of this pile with a global positioning system (GPS) instrument. A minimum of once per calendar year, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 19.705, Rule 18.1004, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- PILE-8. The permittee shall maintain the area of SN-221.RMB1 to the square footage of the new raw material building, 214,700 ft² or 4.93 acres. A minimum of once per calendar year, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the raw material building. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 19.705, Rule 18.1004, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- PILE-9. The permittee shall maintain the area of SN-111.P1 at or below 304,920 ft² or 7.0 acres. The permittee shall demarcate and record the perimeter of this pile with a global positioning system (GPS) instrument. A minimum of once per calendar year, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 19.705, Rule 18.1004, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

PILE-10. The permittee shall maintain the area of SN-111.P2 at or below 130,680 ft² or 3.0 acres. The permittee shall demarcate and record the perimeter of this pile with a global positioning system (GPS) instrument. A minimum of once per calendar year, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 19.705, Rule 18.1004, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

PILE-11. Visible emissions from these sources shall not exceed 20% opacity. Compliance shall be demonstrated through compliance with Specific Condition PILE-12. [Rule 19.503 and 40 C.F.R. § 52 Subpart E]

PILE-12. Weekly visible emission observations shall be used as a method of compliance verification for the opacity limits assigned for these sources. The weekly observations shall be conducted by someone familiar with the facility's visible emissions.

- a. If during the observations, visible emissions are detected which appear to be in excess of the permitted opacity limit, the permittee shall:
 - i. Take immediate action to identify the cause of the visible emissions,
 - ii. Implement corrective action, and
 - iii. If excessive visible emissions are still detected, an opacity reading shall be conducted in accordance with EPA Reference Method 9 for point sources and in accordance with EPA Method 22 for non-point sources. This reading shall be conducted by a person trained and certified in the reference method. If the opacity reading exceeds the permitted limit, further corrective measures shall be taken.
 - iv. If no excessive visible emissions are detected, the incident shall be noted in the records as described below.
- b. The permittee shall maintain records related to all visible emission observations and Method 9 readings. These records shall be updated on an as-performed basis. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. These records shall contain:
 - i. The time and date of each observation/reading,
 - ii. The results of the observations,
 - iii. The cause of any observed exceedance of opacity limits, corrective actions taken, and results of the reassessment, and
 - iv. The name of the person conducting the observation/reading.

[Rule 18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

PILE-13. SN-449.P1 and SN-449.P2 are considered affected sources under 40 C.F.R. Part 63, Subpart LLL, and is subject, but not limited, to the requirements found in Specific

Conditions 3, 5, 6, 12, 30, 31, 32, 33, 36, 37, 38, 39, 40, 41, 42 and 43. [Rule 19.304 and 40 C.F.R. Part 60, Subpart LLL]

- PILE-14. The permittee shall maintain the area of SN-111.P3 at or below 130,680 ft² or 3.0 acres. The permittee shall demarcate and record the perimeter of this pile with a global positioning system (GPS) instrument. A minimum of once per calendar year, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 19.705, Rule 18.1004, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
- PILE-15. The permittee shall maintain the area of SN-41A.P7 at or below 261,360 ft² or 6.0 acres. The permittee shall demarcate and record the perimeter of this pile with a global positioning system (GPS) instrument. A minimum of once per calendar year, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 19.705, Rule 18.1004, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

Dust Collectors and Material Transfer Points subject to 40 C.F.R. § 60 Subpart OOO

Source Description

The dust collectors located throughout the facility are subject to Subpart OOO. Affected sources were constructed prior to April 22, 2008. Uncontrolled emissions from the material transfer points located throughout the facility are subject to Subpart OOO.

Specific Conditions

- OOO-1. The permittee shall not exceed the emission rates set forth in the following table. Emission rates are based on the maximum capacity of the equipment and continuous operation. Compliance shall be demonstrated through compliance with Plantwide Conditions 5 and 9. [Rule 19.501 *et seq.* and 40 C.F.R. Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
41A.BF10*	Dust Collector, Coal/Coke/Gypsum Unloading	PM ₁₀	0.3	1.0
41A.BF20*	Dust Collector, Coal/Coke/Gypsum Storage Discharge	PM ₁₀	0.3	1.0
44A.BF10*	Dust Collector, Apron Feeder	PM ₁₀	0.2	0.9
213.BF10	Dust Collector, Sand and Iron Unloading	PM ₁₀	0.3	1.0
213.BF20	Dust Collector, Sand and Iron Transport	PM ₁₀	0.4	1.5
221.BF10	Dust Collector, Stacker Transfer	PM ₁₀	0.2	0.9
323.BF10	Dust Collector, Sand and Iron to Bins	PM ₁₀	0.2	0.9
325.BF10	Dust Collector, Limestone Bin	PM ₁₀	0.2	0.6
325.BF20	Dust Collector, Raw Material Bins	PM ₁₀	0.3	0.9
325.BF30	Dust Collector, Raw Material Discharge	PM ₁₀	0.5	1.8
41A.T1	Transfer, Belt Conveyor 41A.BC20 to Gypsum Pile in Chalk Shed	PM ₁₀	0.4	0.1
41A.T3	Transfer, Truck Unloading to Coal Pile 41A.P7	PM ₁₀	0.7	0.1

SN	Description	Pollutant	lb/hr	tpy
111.T10	Transfer, Truck Unloading to Hopper 111.HP1	PM ₁₀	1.9	0.8
111.T12	Transfer, Truck Unloading to Hopper 111.HP2	PM ₁₀	1.9	0.8
111.T13	Transfer, Truck Unloading Limestone Pile 111.P1	PM ₁₀	1.9	0.2
111.T14	Transfer, Truck Unloading Limestone Pile 111.P2	PM ₁₀	1.9	0.2
111.T15	Transfer, Truck Unloading Limestone Pile 111.P3	PM ₁₀	1.9	0.5
213.T1	Transfer, Truck Unloading to 213.HP010	PM ₁₀	0.5	0.3
213.T2	Transfer, Truck Unloading to Outside Iron Source Pile 213.P2	PM ₁₀	0.5	0.1
213.T3	Transfer, Outside Iron Source Pile 213.P2 to loader	PM ₁₀	0.5	0.1
221.CH01	Chute, 221.BC10 to 221.ST10	PM ₁₀	1.9	1.6
221.RMB1	Raw Material Building for Sand, Iron and Limestone	PM ₁₀	0.1	0.2
221.T1	Transfer from Stacker Conveyor to Limestone Pile	PM ₁₀	1.9	1.6
321.CH01	Chute, 321.RE10 to 321.BC10	PM ₁₀	1.9	1.6
323.T1	Chute, Iron/Sand Reclaim to 323.AF10	PM ₁₀	0.3	0.2

*also subject to Subpart Y as found in Specific Conditions COAL-3 through COAL-7

- 000-2. The permittee shall not exceed the emission rates set forth in the following table. Emission rates are based on the maximum capacity of the equipment and continuous operation. Compliance shall be demonstrated through compliance with Plantwide Conditions 5 and 9. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
41A.BF10*	Dust Collector, Coal/Coke/Gypsum Unloading	PM	0.3	1.0
41A.BF20*	Dust Collector, Coal/Coke/Gypsum Storage Discharge	PM	0.3	1.0

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SN	Description	Pollutant	lb/hr	tpy
44A.BF10*	Dust Collector, Apron Feeder	PM	0.2	0.9
213.BF10	Dust Collector, Sand and Iron Unloading	PM	0.3	1.0
213.BF20	Dust Collector, Sand and Iron Transport	PM	0.4	1.5
221.BF10	Dust Collector, Stacker Transfer	PM	0.2	0.9
323.BF10	Dust Collector, Sand and Iron to Bins	PM	0.2	0.9
325.BF10	Dust Collector, Limestone Bin	PM	0.2	0.6
325.BF20	Dust Collector, Raw Material Bins	PM	0.3	0.9
325.BF30	Dust Collector, Raw Material Discharge	PM	0.5	1.8
41A.T1	Transfer, Belt Conveyor 41A.BC20 to Gypsum Pile in Chalk Shed	PM	1.0	0.2
41A.T3	Transfer, Truck Unloading to Coal Pile 41A.P7	PM	2.0	0.3
111.T10	Transfer, Truck Unloading to Hopper 111.HP1	PM	5.5	2.3
111.T12	Transfer, Truck Unloading to Hopper 111.HP2	PM	5.5	2.3
111.T13	Transfer, Truck Unloading Limestone Pile 111.P1	PM	5.5	0.6
111.T14	Transfer, Truck Unloading Limestone Pile 111.P2	PM	5.5	0.6
111.T15	Transfer, Truck Unloading Limestone Pile 111.P3	PM	5.5	1.4
213.T1	Transfer, Truck Unloading to 213.HP010	PM	1.3	0.6
213.T2	Transfer, Truck Unloading to Outside Iron Source Pile 213.P2	PM	1.3	0.2
213.T3	Transfer, Outside Iron Source Pile 213.P2 to loader	PM	1.3	0.2
221.CH01	Chute, 221.BC10 to 221.ST10	PM	5.5	4.6
221.RMB1	Raw Material Building for Sand, Iron and Limestone	PM	0.1	0.3

SN	Description	Pollutant	lb/hr	tpy
221.T1	Transfer from Stacker Conveyor to Limestone Pile	PM	5.5	4.6
321.CH01	Chute, 321.RE10 to 321.BC10	PM	5.5	4.6
323.T1	Chute, Iron/Sand Reclaim to 323.AF10	PM	0.8	0.3

*also subject to Subpart Y as found in Specific Conditions COAL-3 through COAL-7

40 C.F.R. § 60 Subpart OOO

- OOO-3. Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.8. The requirements in Table 2 of Subpart OOO apply for affected facilities with capture systems used to capture and transport particulate matter to a control device. [Rule 19.304 and 40 C.F.R. § 60.672(a)]
- OOO-4. Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11. The requirements in Table 3 of Subpart OOO apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems. [Rule 19.304 and 40 C.F.R. § 60.672(b)]
- OOO-5. Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of §60.672. [Rule 19.304 and 40 C.F.R. § 60.672(d)]
- OOO-6. If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of §60.672, or the building enclosing the affected facility or facilities must comply with the following emission limits: [Rule 19.304 and 40 C.F.R. § 60.672(e)]
- Fugitive emissions from the building openings (except for vents as defined in §60.671) must not exceed 7 percent opacity; and [Rule 19.304 and 40 C.F.R. § 60.672(e)(1)]
 - Vents (as defined in §60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of Subpart OOO. [Rule 19.304 and 40 C.F.R. § 60.672(e)(2)]
- OOO-7. Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of Subpart OOO but must meet the applicable stack opacity limit

and compliance requirements in Table 2 of Subpart OOO. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions. [Rule 19.304 and 40 C.F.R. § 60.672(f)]

- OOO-8. In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendices A–1 through A–7 of 40 C.F.R. Part 60 or other methods and procedures as specified in §60.675, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of §60.675. [Rule 19.304 and 40 C.F.R. § 60.675(a)]
- OOO-9. The owner or operator shall determine compliance with the PM standards in §60.672(a) as follows: [Rule 19.304 and 40 C.F.R. § 60.675(b)]
- a. Except as specified in paragraphs (e)(3) and (4) of §60.675, Method 5 of Appendix A–3 of 40 C.F.R. Part 60 or Method 17 of Appendix A–6 of 40 C.F.R. Part 60 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 C.F.R. part 60, Appendix A–3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter. [Rule 19.304 and 40 C.F.R. § 60.675(b)(1)]
 - b. Method 9 of Appendix A–4 of 40 C.F.R. Part 60 and the procedures in §60.11 shall be used to determine opacity. [Rule 19.304 and 40 C.F.R. § 60.675(b)(2)]
- OOO-10. In determining compliance with the particulate matter standards in § 60.672(b) or §60.672(e)(1), the owner or operator shall use Method 9 of Appendix A–4 of 40 C.F.R. Part 60 and the procedures in § 60.11, with the following additions: [Rule 19.304 and 40 C.F.R. § 60.675(c)(1)]
- a. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet). [Rule 19.304 and 40 C.F.R. § 60.675(c)(1)(i)]
 - b. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (*e.g.*, road dust). The required observer position relative to the sun (Method 9 of Appendix A–4 of 40 C.F.R. Part 60, Section 2.1) must be followed. [Rule 19.304 and 40 C.F.R. § 60.675(c)(1)(ii)]
 - c. For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible. [Rule 19.304 and 40 C.F.R. § 60.675(c)(1)(iii)]
- OOO-11. In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of Subpart OOO, using Method 9 (40 C.F.R. part 60, Appendix A–4), the duration of

the Method 9 (40 C.F.R. part 60, Appendix A–4) observations shall be 1 hour (ten 6-minute averages). [Rule 19.304 and 40 C.F.R. § 60.675(c)(2)(i)]

- OOO-12. The duration of the Method 9 (40 C.F.R. part 60, Appendix A–4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time. [Rule 19.304 and 40 C.F.R. § 60.675(c)(2)(ii)]
- OOO-13. When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of Subpart OOO, the duration of the Method 9 (40 C.F.R. part 60, Appendix A–4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of Subpart OOO must be based on the average of the five 6-minute averages. [Rule 19.304 and 40 C.F.R. § 60.675(c)(3)]
- OOO-14. To demonstrate compliance with the fugitive emission limits for buildings specified in §60.672(e)(1), the owner or operator must complete the testing specified in paragraph (d)(1) and (2) of §60.675. Performance tests must be conducted while all affected facilities inside the building are operating. [Rule 19.304 and 40 C.F.R. § 60.675(d)]
- a. If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and owner or operator has previously conducted an initial Method 22 (40 C.F.R. part 60, Appendix A–7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with the opacity limit in §60.672(e)(1). If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40 C.F.R. part 60, Appendix A–4) performance test according to §60.675 and §60.11 to show compliance with the opacity limit in § 60.672(e)(1). [Rule 19.304 and 40 C.F.R. § 60.675(d)(2)]
- OOO-15. The owner or operator may use the following as alternatives to the reference methods and procedures specified in §60.675: [Rule 19.304 and 40 C.F.R. § 60.675(e)]
- a. For the method and procedure of paragraph (c) of §60.675, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used: [Rule 19.304 and 40 C.F.R. § 60.675(e)(1)]
- i. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream. [Rule 19.304 and 40 C.F.R. § 60.675(e)(1)(i)]
- ii. Separate the emissions so that the opacity of emissions from each affected facility can be read. [Rule 19.304 and 40 C.F.R. § 60.675(e)(1)(ii)]

- b. A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met: [Rule 19.304 and 40 C.F.R. § 60.675(e)(2)]
 - i. No more than three emission points may be read concurrently. [Rule 19.304 and 40 C.F.R. § 60.675(e)(2)(i)]
 - ii. All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points. [Rule 19.304 and 40 C.F.R. § 60.675(e)(2)(ii)]
 - iii. If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point. [Rule 19.304 and 40 C.F.R. § 60.675(e)(2)(iii)]
 - c. Method 5I of Appendix A–3 of 40 C.F.R. Part 60 may be used to determine the PM concentration as an alternative to the methods specified in paragraph (b)(1) of §60.675. Method 5I (40 C.F.R. part 60, Appendix A–3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations. [Rule 19.304 and 40 C.F.R. § 60.675(e)(3)]
- OOO-16. The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of Subpart OOO, including reports of opacity observations made using Method 9 (40 C.F.R. part 60, Appendix A–4) to demonstrate compliance with §60.672(b), (e) and (f). [Rule 19.304 and 40 C.F.R. § 60.676(f)]
- OOO-17. For performance tests involving only Method 9 (40 C.F.R. part 60 Appendix A–4) testing, the owner or operator may reduce the 30-day advance notification of performance test in §60.7(a)(6) and 60.8(d) to a 7-day advance notification. [Rule 19.304 and 40 C.F.R. § 60.675(g)]
- OOO-18. The Subpart A requirement under §60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under Subpart OOO. [Rule 19.304 and 40 C.F.R. § 60.676(h)]
- OOO-19. A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator. Affected sources were constructed prior to April 22, 2008. [Rule 19.304 and 40 C.F.R. § 60.676(i)]
- a. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available. [Rule 19.304 and 40 C.F.R. § 60.676(i)(1)]

- b. For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant. [Rule 19.304 and 40 C.F.R. § 60.676(i)(2)]
- OOO-20. The requirements of §60.676 remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of §60.676, provided that they comply with requirements established by the State. [Rule 19.304 and 40 C.F.R. § 60.676(j)]
- OOO-21. Notifications and reports required under Subpart OOO and under Subpart A of 40 C.F.R. Part 60 to demonstrate compliance with Subpart OOO need only to be sent to the EPA Region or the State which has been delegated authority according to §60.4(b). [Rule 19.304 and 40 C.F.R. § 60.676(k)]
- OOO-22. Table 1 of this subpart specifies the provisions of subpart A of this part 60 that do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions. [Rule 19.304 and 40 C.F.R. § 60.670(f)]

Sources Subject to 40 C.F.R. § 60 Subpart Y

Source Description

These are various coal processing sources throughout the facility. Affected sources were constructed prior to April 28, 2008.

Specific Conditions

COAL-1. The permittee shall not exceed the emission rates set forth in the following table. Emission rates are based on the maximum capacity of the equipment and continuous operation. Compliance shall be demonstrated through compliance with Plantwide Conditions 5 and 9. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
41A.BF10*	Dust Collector, Coal/Coke/Gypsum Unloading	PM ₁₀	*	*
41A.BF20*	Dust Collector, Coal/Coke/Gypsum Storage Discharge	PM ₁₀	*	*
41A.T2	Transfer, Belt Conveyor 41A.BC20 to Coal/Coke Pile in Chalk Shed	PM ₁₀	0.4	0.1
41A.T10**	Transfer, Rail and Truck Unloading into 41A.HP10	PM ₁₀	**	**
44A.BF10*	Dust Collector, Apron Feeder	PM ₁₀	*	*
44A.T10**	Transfer, Loader Unloading into Hopper 44A.HP10	PM ₁₀	**	**
44B.BF10	Dust Collector, Coal Coke Bin Vent	PM ₁₀	0.2	0.5

*also subject to Subpart OOO as found in Specific Conditions OOO-3 through OOO-22. Emission rates included in Specific Condition OOO-1.

** also subject to Subpart LLL as found in Specific Conditions 3 through 43. Emission rates included in Specific Condition UMH-1.

COAL-2. The permittee shall not exceed the emission rates set forth in the following table. Emission rates are based on the maximum capacity of the equipment and continuous operation. Compliance shall be demonstrated through compliance with Plantwide Conditions 5 and 9. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
41A.BF10*	Dust Collector, Coal/Coke/Gypsum Unloading	PM	*	*
41A.BF20*	Dust Collector, Coal/Coke/Gypsum Storage Discharge	PM	*	*
41A.T2	Transfer, Belt Conveyor 41A.BC20 to Coal/Coke Pile in Chalk Shed	PM	1.0	0.2
41A.T10**	Transfer, Rail and Truck Unloading into 41A.HP10	PM	**	**
44A.BF10*	Dust Collector, Apron Feeder	PM	*	*
44A.T10**	Transfer, Loader Unloading into Hopper 44A.HP10	PM	**	**
44B.BF10	Dust Collector, Coal Coke Bin Vent	PM	0.2	0.5

*also subject to Subpart OOO as found in Specific Conditions 0 through OOO-22.
 Emission rates included in Specific Condition OOO-2.

** also subject to Subpart LLL as found in Specific Conditions 3 through 42.
 Emission rates included in Specific Condition UMH-2.

40 C.F.R. § 60 Subpart Y

- COAL-3. The provisions of this subpart are applicable to any of the following affected facilities in coal preparation plants which process more than 181 Mg (200 tons) per day: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, and coal transfer and loading systems. [Rule 19.304 and 40 C.F.R. § 60.250(a)]
- COAL-4. On and after the date on which the performance test is conducted or required to be completed under § 60.8, whichever date comes first, an owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on or before April 28, 2008, gases which exhibit 20 percent opacity or greater. [Rule 19.304 and 40 C.F.R. § 60.254(a)]
- COAL-5. An owner or operator of each affected facility that commenced construction, reconstruction, or modification on or before April 28, 2008, must conduct all performance tests required by § 60.8 to demonstrate compliance with the applicable emission standards using the methods identified in § 60.257. [Rule 19.304 and 40 C.F.R. § 60.255(a)]

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COAL-6. The owner or operator of each affected facility constructed, reconstructed, or modified on or before April 28, 2008, must meet the monitoring requirements specified in paragraphs (a)(1) and (2) of this section, as applicable to the affected facility. [Rule 19.304 and 40 C.F.R. § 60.256(a)]

- a. All monitoring devices under paragraph (a) of this section are to be recalibrated annually in accordance with procedures under § 60.13(b). [Rule 19.304 and 40 C.F.R. § 60.256(a)(2)]

COAL-7. For the purpose of reports required under section 60.7(c), any owner operator subject to the provisions of this subpart also shall report semiannually periods of excess emissions as follow:

- a. All 6-minute average opacities that exceed the applicable standard. [Rule 19.304 and 40 C.F.R. § 60.258(b)]

Waste Derived Fuel Sources

Source Description

Liquid waste derived fuels are received in rail tank cars and in tank trucks and stored in above ground storage tanks before being transferred to the kilns. To control VOC emissions, tanks are vented to a thermal oxidizer with a backup carbon adsorption system.

The Bulk Waste Derived Fuel (BWDF) system consists of an enclosed building containing a Mega Mudster, an air vent to control device, a fire suppression system, and equipment for routing of the processed hazardous waste to the cement kiln.

The Ash Grove facility will receive refinery waste transported in roll-off enclosures mounted to trucks. These trucks will back into a building that houses the Mega Mudster. The building is designed to contain Volatile Organic Compounds. The door of the Mega Mudster will be opened, the tailgate of the roll-off enclosure will be opened, and the refinery waste will be dumped into the Mega Mudster. After the transfer is complete, the door of the Mega Mudster will be closed. The building will be a Permanent Total Enclosure to capture and contain all VOC emissions, according to Procedure T of 40 C.F.R. Chapter 1, §52.741. The building will connect to a closed-vent system which routes emissions to a RTO, which will destroy VOC and HAP present in the air stream.

The Mega Mudster serves as a buffer storage, receiving material in batches and providing downstream processes with a continuous feed rate of material.

Specific Conditions

WDF-1. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Condition WDF-4. [Rule 19.501 et seq. and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
40F.FT3 ^{1,2,3,5,6}	LWDF Tanks			Vents through either 443.SK10 ⁴ or 40F.TX1
40F.FT4 ^{1,2,3,5,6}				
40F.FT5 ^{1,2,3,5,6}				
40F.FT6 ^{1,2,3,5,6}				
40F.FT7 ^{1,2,3,5,6}				
40F.FT8 ^{1,2,3,5,6}				
40F.FT9 ^{1,2,3,5,6}				

SN	Description	Pollutant	lb/hr	tpy
41F.FT10 ^{1,2,3,5,6}				
40F.FTA ^{1,2,3,5,6}				
40F.FT11 ^{1,2,3,5,6}				
40F.TX1 ^{2,3,5,6}	Thermal Oxidizer for HWDF Tanks & Ancillaries' Closed Vent System	PM ₁₀ VOC SO ₂ CO NO _x	0.1 5.2 0.1 2.1 0.5	0.3 22.7 0.1 8.9 2.0
BCC ^{2,3,5,6}	Bulk Container Cleaning	VOC	0.7	1.0
45F.TX10 ^{2,3,5,6}	Thermal Oxidizer, BWDF System with 2.47 MMBtu/hr natural gas fired RTO	PM ₁₀ SO ₂ VOC CO NO _x	0.1 0.1 0.7 0.3 0.3	0.1 0.1 3.1 0.9 1.1

1. Subject to 40 C.F.R. 60, Subpart Kb as found in Specific Conditions WDF-10 through WDF-20
2. Subject to 40 C.F.R. 61, Subpart, FF as found in Specific Conditions WDF-21 through WDF-69
3. Subject to 40 C.F.R. 63, Subpart DD as found in Specific Conditions WDF-70 through WDF-108
4. Emissions from the source (SN) are fed to the pyroprocessing system before being vented through stack 443.SK10
5. Subject to 40 C.F.R. 63, Subpart G as found in Specific Conditions WDF-131 through WDF-205
6. Subject to 40 C.F.R. 63, Subpart XX as found in Specific Conditions WDF-207 through WDF-211

WDF-2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Condition WDF-4. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
40F.FT3 ^{1,2,3,5,6}	LWDF Tanks	Vents through either 443.SK10 ⁴ or 40F.TX1		
40F.FT4 ^{1,2,3,5,6}				
40F.FT5 ^{1,2,3,5,6}				
40F.FT6 ^{1,2,3,5,6}				
40F.FT7 ^{1,2,3,5,6}				
40F.FT8 ^{1,2,3,5,6}				
40F.FT9 ^{1,2,3,5,6}				
41F.FT10 ^{1,2,3,5,6}				

SN	Description	Pollutant	lb/hr	tpy
40F.FTA ^{1,2,3,5,6}				
40F.FT11 ^{1,2,3,5,6}				
40F.TX1 ^{2,3,5,6}	Thermal Oxidizer for HWDF Tanks & Ancillaries' Closed Vent System	PM Total HAP	0.1 0.28	0.3 1.23
BCC ^{2,3,5,6}	Bulk Container Cleaning	Total HAP	0.20	0.31
45F.TX10 ^{2,3,5,6}	Thermal Oxidizer, BWDF System with 2.47 MMBtu/hr natural gas fired RTO	PM Total HAP	0.1 0.01	0.1 0.03

1. Subject to 40 C.F.R. 60, Subpart Kb as found in Specific Conditions WDF-10 through WDF-20
2. Subject to 40 C.F.R. 61, Subpart, FF as found in Specific Conditions WDF-21 through WDF-69
3. Subject to 40 C.F.R. 63, Subpart DD as found in Specific Conditions WDF-70 through WDF-108
4. Emissions from the source (SN) are fed to the pyroprocessing system before being vented through stack 443.SK10
5. Subject to 40 C.F.R. 63, Subpart G as found in Specific Conditions WDF-131 through WDF-205
6. Subject to 40 C.F.R. 63, Subpart XX as found in Specific Conditions WDF-207 through WDF-211

- WDF-3. Visible emissions from source 40F.TX1 shall not exceed 10% opacity. Compliance shall be demonstrated by using only natural gas as fuel in the thermal oxidizers. [Regulation 18, §18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- WDF-4. The permittee shall determine the destruction efficiency of the thermal oxidizing unit, SN-40F.TX1, either using an appropriate test method or through the use of engineering calculations. If testing is used, the test shall be performed a minimum of once every five years. The initial test shall be performed no later than 180 days after the initial startup date. This test shall be performed with this unit operating at or above 90% of its design capacity. This unit shall achieve a VOC destruction rate of not less than 95%. If engineering calculations are used, the permittee shall maintain a complete design analysis of the unit which shall contain documentation necessary to demonstrate the performance of the unit. [Rule 19.702 and 40 C.F.R. § 52 Subpart E]
- WDF-5. The permittee shall operate the combustion chamber of the thermal oxidizer 40F.TX1 at a design combustion zone temperature at or above 1500°F. To demonstrate compliance, the permittee shall install, calibrate, and maintain a continuous temperature recorder on the thermal oxidizer used to control emissions from these sources. The permittee shall maintain continuous records of the temperature of the gas stream in the combustion zone of the incinerator and records of all 3-hour periods of operation during which the average temperature of the gas stream in the combustion zone is more than 28 °C (50 °F) below the design combustion zone temperature. These combustion zone temperature requirements do not apply at times when the system is controlled by a carbon canister or some other control device in

lieu of the thermal oxidizer. The permittee shall also maintain records of the period when the system is not controlled by the thermal oxidizer. These records shall be maintained on site and made available to Division of Environmental Quality personnel upon request. [Rule 19.703, 40 C.F.R. § 52 Subpart E and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

- WDF-6. During operation of the dual carbon canister system as a replacement for thermal oxidizer at 40F.TX1, the permittee shall use good engineering judgment and/or vendor recommendations to determine the frequency to observe the condition of the breakthrough indicators on the carbon canisters in the absorption train. Observation of the breakthrough indicators on the carbon canisters shall occur no less often than the conclusion of each operating shift in which working losses were directed through the carbon canister absorption train. If breakthrough is detected, the system shall be reconfigured and, as necessary, canisters shall be recharged. The permittee shall maintain a log of the observations of the breakthrough indicators and the recharging of the carbon canisters. These records shall be maintained on site and made available to Division of Environmental Quality personnel upon request. [Rule 19.703, 40 C.F.R. § 52 Subpart E and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- WDF-7. Visible emissions from source 45F.TX10 shall not exceed 10% opacity. Compliance shall be demonstrated by using only natural gas as fuel in the regenerative thermal oxidizer. [Rule 18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- WDF-8. The permittee shall determine the destruction efficiency of the regenerative thermal oxidizing unit associated with source 45F.TX10 either using an appropriate test method or through the use of engineering calculations. If testing is used, the test shall be performed a minimum of once every five years. The initial test shall be performed no later than 180 days after the initial startup date. This test shall be performed with this unit operating at or above 90% of its design capacity. This unit shall achieve a VOC destruction rate of not less than 95%. If engineering calculations are used, the permittee shall maintain a complete design analysis of the unit which shall contain documentation necessary to demonstrate the performance of the unit. [Rule 19.702 and 40 C.F.R. § 52 Subpart E]
- WDF-9. The permittee shall operate the combustion chamber of the regenerative thermal oxidizer at or above 1425°F. To demonstrate compliance, the permittee shall install, calibrate, and maintain a continuous temperature recorder on the regenerative thermal oxidizer used to control emissions from SN-45F.TX10. The permittee shall maintain continuous records of the temperature of the gas stream in the combustion zone of the incinerator and records of all 3-hour periods of operation during which the average temperature of the gas stream in the combustion zone is more than 28 °C (50 °F) below the design combustion zone temperature. These combustion zone temperature requirements do not apply at times when the system being controlled by SN-

45F.TX10 is "RCRA empty" as defined in 40 C.F.R. § 261.7. The permittee shall also maintain records of the period when the system controlled by SN-45F.TX10 is "RCRA empty". These records shall be maintained on site and made available to Division of Environmental Quality personnel upon request. [Rule 19.703, 40 C.F.R. § 52 Subpart E and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

40 C.F.R. § 60 Subpart Kb

Sources 40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8, 40F.FT9,
41F.FT10, 40F.FTA, 40F.FT11

- WDF-10. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following: [Rule 19.304 and 40 C.F.R. § 60.112b(a)]
- a. A closed vent system and control device meeting the following specifications: [Rule 19.304 and 40 C.F.R. § 60.112b(a)(3)]
 - i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, § 60.485(b). [Rule 19.304 and 40 C.F.R. § 60.112b(a)(3)(i)]
 - ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§ 60.18) of the General Provisions. [Rule 19.304 and 40 C.F.R. § 60.112b(a)(3)(ii)]
- WDF-11. The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m³ which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following: [Rule 19.304 and 40 C.F.R. § 60.112b(b)]
- a. A closed vent system and control device as specified in §60.112b(a)(3). [Rule 19.304 and 40 C.F.R. § 60.112b(b)(1)]
- WDF-12. The owner or operator of each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare) is exempt from § 60.8 of the General Provisions and shall meet the following requirements. [Rule 19.304 and 40 C.F.R. § 60.113b(c)]
- a. Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an

attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below. [Rule 19.304 and 40 C.F.R. § 60.113b(c)(1)]

- i. Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under Subpart Kb, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 ° C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph. [Rule 19.304 and 40 C.F.R. § 60.113b(c)(1)(i)]
- ii. A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters). [Rule 19.304 and 40 C.F.R. § 60.113b(c)(1)(ii)]

WDF-13. Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of §60.112b, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies. [Rule 19.304 and 40 C.F.R. § 60.113b(c)(2)]

WDF-14. The owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of §60.115b depending upon the control equipment installed to meet the requirements of § 60.112b. The owner or operator shall keep copies of all reports and records required by §60.115b, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment. [Rule 19.304 and 40 C.F.R. § 60.115b]

WDF-15. After installing control equipment in accordance with § 60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records. [Rule 19.304 and 40 C.F.R. § 60.115b(c)]

- a. A copy of the operating plan. [Rule 19.304 and 40 C.F.R. § 60.115b(c)(1)]
- b. A record of the measured values of the parameters monitored in accordance with § 60.113b(c)(2). [Rule 19.304 and 40 C.F.R. § 60.115b(c)(2)]

- WDF-16. The owner or operator shall keep copies of all records required by §60.116b, except for the record required by paragraph (b) of §60.116b, for at least 2 years. The record required by paragraph (b) of §60.116b will be kept for the life of the source. [Rule 19.304 and 40 C.F.R. § 60.116b(a)]
- WDF-17. The owner or operator of each storage vessel as specified in § 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [Rule 19.304 and 40 C.F.R. § 60.116b(b)]
- WDF-18. Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below. [Rule 19.304 and 40 C.F.R. § 60.116b(e)]
- a. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [Rule 19.304 and 40 C.F.R. § 60.116b(e)(1)]
 - b. For other liquids, the vapor pressure: [Rule 19.304 and 40 C.F.R. § 60.116b(e)(3)]
 - i. May be obtained from standard reference texts, or [Rule 19.304 and 40 C.F.R. § 60.116b(e)(3)(i)]
 - ii. Determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see § 60.17); or [Rule 19.304 and 40 C.F.R. § 60.116b(e)(3)(ii)]
 - iii. Measured by an appropriate method approved by the Administrator; or [Rule 19.304 and 40 C.F.R. § 60.116b(e)(3)(iii)]
 - iv. Calculated by an appropriate method approved by the Administrator. [Rule 19.304 and 40 C.F.R. § 60.116b(e)(iv)]
- WDF-19. The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements. [Rule 19.304 and 40 C.F.R. § 60.116b(f)]
- a. Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of §60.116b. [Rule 19.304 and 40 C.F.R. § 60.116b(f)(1)]
- WDF-20. The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of § 60.112b or with emissions reductions equipment as specified in 40 C.F.R. 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of §60.116b. [Rule 19.304 and 40 C.F.R. § 60.116b(g)]

Sources 40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8, 40F.FT9,
41F.FT10, 40F.FTA, 40F.FT11, 40F.TX1, 45F.TX10, BCC

- WDF-21. The provisions of this subpart apply to owners and operators of hazardous waste treatment, storage, and disposal facilities that treat, store, or dispose of hazardous waste generated by any facility listed in paragraph (a) of Subpart FF. The waste streams at hazardous waste treatment, storage, and disposal facilities subject to the provisions of this subpart are the benzene-containing hazardous waste from any facility listed in paragraph (a) of Subpart FF. A hazardous waste treatment, storage, and disposal facility is a facility that must obtain a hazardous waste management permit under subtitle C of the Solid Waste Disposal Act. [Rule 19.304 and 40 C.F.R. §61.340(b)]
- WDF-22. An owner or operator of a facility at which the total annual benzene quantity from facility waste is less than 10 megagrams per year (Mg/yr) (11 ton/yr) shall be exempt from the requirements of paragraphs (b) and (c) of Subpart FF. The total annual benzene quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10 percent. The benzene quantity in a waste stream is to be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream. Other specific requirements for calculating the total annual benzene waste quantity are as follows: [Rule 19.304 and 40 C.F.R. §61.342(a)]
- a. Wastes that are exempted from control under §§61.342(c)(2) and 61.342(c)(3) are included in the calculation of the total annual benzene quantity if they have an annual average water content greater than 10 percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than 10 percent. [Rule 19.304 and 40 C.F.R. §61.342(a)(1)]
 - b. The total annual benzene quantity is determined based upon the quantity of benzene in the waste before any waste treatment occurs to remove the benzene except as specified in §61.355(c)(1)(i) (A) through (C). [Rule 19.304 and 40 C.F.R. §61.342(a)(4)]
- WDF-23. Each owner or operator of a facility at which the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr) as determined in paragraph (a) of Subpart FF shall be in compliance with the requirements of paragraphs (c) through (h) of Subpart FF no later than 90 days following the effective date, unless a waiver of compliance has been obtained under §61.11, or by the initial startup for a new source with an initial startup after the effective date. [Rule 19.304 and 40 C.F.R. §61.342(b)]
- WDF-24. Each owner or operator of a facility at which the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr) as determined in

paragraph (a) of Subpart FF shall manage and treat the facility waste as follows:
[Rule 19.304 and 40 C.F.R. §61.342(c)]

- a. For each waste stream that contains benzene, including (but not limited to) organic waste streams that contain less than 10 percent water and aqueous waste streams, even if the wastes are not discharged to an individual drain system, the owner or operator shall: [Rule 19.304 and 40 C.F.R. §61.342(c)(1)]
 - i. Remove or destroy the benzene contained in the waste using a treatment process or wastewater treatment system that complies with the standards specified in §61.348 of this subpart. [Rule 19.304 and 40 C.F.R. §61.342(c)(1)(i)]
 - ii. Comply with the standards specified in §§61.343 through 61.347 of this subpart for each waste management unit that receives or manages the waste stream prior to and during treatment of the waste stream in accordance with paragraph (c)(1)(i) of Subpart FF. [Rule 19.304 and 40 C.F.R. §61.342(c)(1)(ii)]
- b. A waste stream is exempt from paragraph (c)(1) of this section provided that the owner or operator demonstrates initially and, thereafter, at least once per year that the flow-weighted annual average benzene concentration for the waste stream is less than 10 ppmw as determined by the procedures specified in § 61.355(c)(2) or § 61.355(c)(3). [Rule 19.304 and 40 C.F.R. §61.342(c)(2)]

WDF-25. Rather than treating the waste onsite, an owner or operator may elect to comply with paragraph (c)(1)(i) of this section by transferring the waste offsite to another facility where the waste is treated in accordance with the requirements of paragraph (c)(1)(i) of this section. The owner or operator transferring the waste shall: [Rule 19.304 and 40 C.F.R. §61.342(f)]

- a. Comply with the standards specified in § 61.343 through 61.347 of this subpart for each waste management unit that receives or manages the waste prior to shipment of the waste offsite. [Rule 19.304 and 40 C.F.R. §61.342(f)(1)]
- b. Include with each offsite waste shipment a notice stating that the waste contains benzene which is required to be managed and treated in accordance with the provisions of this subpart. [Rule 19.304 and 40 C.F.R. §61.342(f)(2)]

WDF-26. Compliance with this subpart will be determined by review of facility records and results from tests and inspections using methods and procedures specified in §61.355 of this subpart. [Rule 19.304 and 40 C.F.R. §61.342(g)]

WDF-27. Except as provided in paragraph (b) of Subpart FF and in §61.351, the owner or operator must meet the standards in paragraph (a)(1) or (2) of Subpart FF for each tank in which the waste stream is placed in accordance with §61.342 (c)(1)(ii). The standards in Subpart FF apply to the treatment and storage of the waste stream in a tank, including dewatering. [Rule 19.304 and 40 C.F.R. §61.343(a)]

- a. The owner or operator shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. [Rule 19.304 and 40 C.F.R. §61.343(a)(1)]

- i. The fixed-roof shall meet the following requirements: [Rule 19.304 and 40 C.F.R. §61.343(a)(1)(i)]
 - 1. The cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h) of this subpart. [Rule 19.304 and 40 C.F.R. §61.343(a)(1)(i)(A)]
 - 2. Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair. [Rule 19.304 and 40 C.F.R. §61.343(a)(1)(i)(B)]
 - ii. The closed-vent system and control device shall be designed and operated in accordance with the requirements of §61.349 of this subpart. [Rule 19.304 and 40 C.F.R. §61.343(a)(1)(ii)]
 - b. The owner or operator must install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in paragraph (e) of Subpart FF. [Rule 19.304 and 40 C.F.R. §61.343(a)(2)]
- WDF-28. Each fixed-roof, seal, access door, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. [Rule 19.304 and 40 C.F.R. §61.343(c)]
- WDF-29. Except as provided in §61.350 of this subpart, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 45 calendar days after identification. [Rule 19.304 and 40 C.F.R. §61.343(d)]
- WDF-30. Each owner or operator who controls air pollutant emissions by using an enclosure vented through a closed-vent system to a control device must meet the requirements specified in paragraphs (e)(1) through (4) of this section. [Rule 19.304 and 40 C.F.R. §61.343(e)]
- a. The tank must be located inside a total enclosure. The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure as specified in “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” in 40 C.F.R. 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator must perform the verification procedure

for the enclosure as specified in section 5.0 of Procedure T initially when the enclosure is first installed and, thereafter, annually. A facility that has conducted an initial compliance demonstration and that performs annual compliance demonstrations in accordance with the requirements for Tank Level 2 control requirements 40 C.F.R. 264.1084(i) or 40 C.F.R. 265(i) is not required to make repeat demonstrations of initial and continuous compliance for the purposes of this subpart. [Rule 19.304 and 40 C.F.R. §61.343(e)(1)]

- b. The enclosure must be vented through a closed-vent system to a control device that is designed and operated in accordance with the standards for control devices specified in § 61.349. [Rule 19.304 and 40 C.F.R. §61.343(e)(2)]
- c. Safety devices, as defined in this subpart, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of paragraphs (e)(1) and (2) of this section. [Rule 19.304 and 40 C.F.R. §61.343(e)(3)]
- d. The closed-vent system must be designed and operated in accordance with the requirements of § 61.349. [Rule 19.304 and 40 C.F.R. §61.343(e)(4)]

WDF-31. The owner or operator shall meet the following standards for each container in which waste is placed in accordance with § 61.342(c)(1)(ii) of this subpart: [Rule 19.304 and 40 C.F.R. §61.345(a)]

- a. The owner or operator shall install, operate, and maintain a cover on each container used to handle, transfer, or store waste in accordance with the following requirements: [Rule 19.304 and 40 C.F.R. §61.345(a)(1)]
 - i. The cover and all openings (e.g., bungs, hatches, and sampling ports) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart. [Rule 19.304 and 40 C.F.R. §61.345(a)(1)(i)]
 - ii. Except as provided in paragraph (a)(4) of this section, each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the container except when it is necessary to use the opening for waste loading, removal, inspection, or sampling. [Rule 19.304 and 40 C.F.R. §61.345(a)(1)(ii)]
- b. When a waste is transferred into a container by pumping, the owner or operator shall perform the transfer using a submerged fill pipe. The submerged fill pipe outlet shall extend to within two fill pipe diameters of the bottom of the container while the container is being loaded. During loading of the waste, the cover shall remain in place and all openings shall be maintained in a closed, sealed position except for those openings required for the submerged fill pipe, those openings required for venting of the container to prevent physical damage or permanent deformation of the container or cover, and any openings complying with paragraph (a)(4) of this section. [Rule 19.304 and 40 C.F.R. §61.345(a)(2)]
- c. Treatment of a waste in a container, including aeration, thermal or other treatment, must be performed by the owner or operator in a manner such that while the waste is being treated the container meets the standards specified in

paragraphs (a)(3)(i) through (iii) of this section, except for covers and closed-vent systems that meet the requirements in paragraph (a)(4) of this section. [Rule 19.304 and 40 C.F.R. §61.345(a)(3)]

- i. The owner or operator must vent the container inside a total enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of paragraphs (a)(3)(ii)(A) and (B) of this section; [Rule 19.304 and 40 C.F.R. §61.345(a)(3)(i)(A)]
- ii. The owner or operator must meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator: [Rule 19.304 and 40 C.F.R. §61.345(a)(3)(ii)]
 1. The total enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure as specified in section 5 of the “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” in 40 C.F.R. 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator must perform the verification procedure for the enclosure as specified in section 5.0 of “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” initially when the enclosure is first installed and, thereafter, annually. A facility that has conducted an initial compliance demonstration and that performs annual compliance demonstrations in accordance with the Container Level 3 control requirements in 40 C.F.R. 264.1086(e)(2)(i) or 40 C.F.R. 265.1086(e)(2)(i) is not required to make repeat demonstrations of initial and continuous compliance for the purposes of this subpart. [Rule 19.304 and 40 C.F.R. §61.345(a)(3)(ii)(A)]
 2. The closed-vent system and control device must be designed and operated in accordance with the requirements of § 61.349. [Rule 19.304 and 40 C.F.R. §61.345(a)(3)(ii)(B)]
 3. For a container cover, the cover and all openings (e.g., doors, hatches) must be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in § 61.355(h). [Rule 19.304 and 40 C.F.R. §61.345(a)(3)(ii)(C)]
- iii. Safety devices, as defined in this subpart, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of paragraph (a)(3)(i) of this section. [Rule 19.304 and 40 C.F.R. §61.345(a)(3)(iii)]

- WDF-32. Each cover and all openings shall be visually inspected initially and quarterly thereafter to ensure that they are closed and gasketed properly. [Rule 19.304 and 40 C.F.R. §61.345(b)]
- WDF-33. Except as provided in § 61.350 of this subpart, when a broken seal or gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification. [Rule 19.304 and 40 C.F.R. §61.345(c)]
- WDF-34. Except as provided in paragraph (a)(5) of this section, the owner or operator shall treat the waste stream in accordance with the following requirements: [Rule 19.304 and 40 C.F.R. §61.348(a)]
- a. Destroys benzene in the waste stream by incinerating the waste in a combustion unit that achieves a destruction efficiency of 99 percent or greater for benzene. [Rule 19.304 and 40 C.F.R. §61.348(a)(1)(iii)]
 - b. An owner or operator may aggregate or mix together individual waste streams to create a combined waste stream for the purpose of facilitating treatment of waste to comply with the requirements of paragraph (a)(1) of this section except as provided in paragraph (a)(5) of this section. [Rule 19.304 and 40 C.F.R. §61.348(a)(4)]
- WDF-35. The owner and operator shall demonstrate that each treatment process or wastewater treatment system unit, except as provided in paragraph (d) of this section, achieves the appropriate conditions specified in paragraphs (a) or (b) of this section. [Rule 19.304 and 40 C.F.R. §61.348(c)]
- WDF-36. A treatment process or waste stream is in compliance with the requirements of this subpart and exempt from the requirements of paragraph (c) of this section provided that the owner or operator documents that the treatment process or waste stream is in compliance with other regulatory requirements as follows: [Rule 19.304 and 40 C.F.R. §61.348(d)]
- a. The treatment process is an industrial furnace or boiler burning hazardous waste for energy recovery for which the owner or operator has been issued a final permit under 40 C.F.R. part 270 and complies with the requirements of 40 C.F.R. part 266, subpart D. [Rule 19.304 and 40 C.F.R. §61.348(d)(2)]
- WDF-37. Except as specified in paragraph (e)(3) of this section, if the treatment process or wastewater treatment system unit has any openings (e.g., access doors, hatches, etc.), all such openings shall be sealed (e.g., gasketed, latched, etc.) and kept closed at all times when waste is being treated, except during inspection and maintenance. [Rule 19.304 and 40 C.F.R. §61.348(e)]
- a. Each seal, access door, and all other openings shall be checked by visual inspections initially and quarterly thereafter to ensure that no cracks or gaps occur and that openings are closed and gasketed properly. [Rule 19.304 and 40 C.F.R. §61.348(e)(1)]

- b. Except as provided in § 61.350 of this subpart, when a broken seal or gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification. [Rule 19.304 and 40 C.F.R. §61.348(e)(2)]
- c. If the cover and closed-vent system operate such that the treatment process and wastewater treatment system unit are maintained at a pressure less than atmospheric pressure, the owner or operator may operate the system with an opening that is not sealed and kept closed at all times if the following conditions are met: [Rule 19.304 and 40 C.F.R. §61.348(e)(3)]
 - i. The purpose of the opening is to provide dilution air to reduce the explosion hazard; [Rule 19.304 and 40 C.F.R. §61.348(e)(3)(i)]
 - ii. The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h); and [Rule 19.304 and 40 C.F.R. §61.348(e)(3)(ii)]
 - iii. The pressure is monitored continuously to ensure that the pressure in the treatment process and wastewater treatment system unit remain below atmospheric pressure. [Rule 19.304 and 40 C.F.R. §61.348(e)(3)(iii)]

WDF-38. The owner or operator of a treatment process or wastewater treatment system unit that is used to comply with the provisions of this section shall monitor the unit in accordance with the applicable requirements in § 61.354 of this subpart. [Rule 19.304 and 40 C.F.R. §61.348(g)]

WDF-39. For each closed-vent system and control device used to comply with standards in accordance with § § 61.343 through 61.348 of this subpart, the owner or operator shall properly design, install, operate, and maintain the closed-vent system and control device in accordance with the following requirements: [Rule 19.304 and 40 C.F.R. §61.349(a)]

- a. The closed-vent system shall: [Rule 19.304 and 40 C.F.R. §61.349(a)(1)]
 - i. Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h) of this subpart. [Rule 19.304 and 40 C.F.R. §61.349(a)(1)(i)]
 - ii. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [Rule 19.304 and 40 C.F.R. §61.349(a)(1)(iii)]
 - iii. For each closed-vent system complying with paragraph (a) of Subpart FF, one or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good

- engineering and safety practices for handling flammable, explosive, or other hazardous materials. [Rule 19.304 and 40 C.F.R. §61.349(a)(1)(iv)]
- b. The control device shall be designed and operated in accordance with the following conditions: [Rule 19.304 and 40 C.F.R. §61.349(a)(2)]
 - i. An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) shall meet one of the following conditions: [Rule 19.304 and 40 C.F.R. §61.349(a)(2)(i)]
 - 1. Reduce the organic emissions vented to it by 95 weight percent or greater; [Rule 19.304 and 40 C.F.R. §61.349(a)(2)(i)(A)]
 - 2. Provide a minimum residence time of 0.5 seconds at a minimum temperature of 760 °C (1,400 °F). If a boiler or process heater issued as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater. [Rule 19.304 and 40 C.F.R. §61.349(a)(2)(i)(C)]
 - ii. A vapor recovery system (e.g., a carbon adsorption system or a condenser) shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater. [Rule 19.304 and 40 C.F.R. §61.349(a)(2)(ii)]
- WDF-40. Each closed-vent system and control device used to comply with this subpart shall be operated at all times when waste is placed in the waste management unit vented to the control device except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the control device. [Rule 19.304 and 40 C.F.R. §61.349(b)]
- WDF-41. An owner and operator shall demonstrate that each control device, except for a flare, achieves the appropriate conditions specified in paragraph (a)(2) of Subpart FF by using one of the following methods: [Rule 19.304 and 40 C.F.R. §61.349(c)]
- a. Engineering calculations in accordance with requirements specified in §61.356(f) of this subpart [Rule 19.304 and 40 C.F.R. §61.349(c)(1)]
- WDF-42. The Administrator may request at any time an owner or operator demonstrate that a control device meets the applicable conditions specified in paragraph (a)(2) of §61.349 by conducting a performance test using the test methods and procedures as required in §61.355, and for control devices subject to paragraph (a)(2)(iv) of §61.349, the Administrator may specify alternative test methods and procedures, as appropriate. [Rule 19.304 and 40 C.F.R. Rule 19.304 and 40 C.F.R. §61.349(e)]
- WDF-43. Each closed-vent system and control device shall be visually inspected initially and quarterly thereafter. The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections. [Rule 19.304 and 40 C.F.R. §61.349(f)]

- WDF-44. Except as provided in §61.350 of this subpart, if visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the closed-vent system and control device shall be made as soon as practicable but no later than 5 calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are detected or the visible defect is observed. [Rule 19.304 and 40 C.F.R. §61.349(g)]
- WDF-45. The owner or operator of a control device that is used to comply with the provisions of Subpart FF shall monitor the control device in accordance with §61.354(c) of this subpart. [Rule 19.304 and 40 C.F.R. §61.349(h)]
- WDF-46. Delay of repair of facilities or units that are subject to the provisions of this subpart will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown. [Rule 19.304 and 40 C.F.R. §61.350(a)]
- WDF-47. Repair of such equipment shall occur before the end of the next facility or unit shutdown. [Rule 19.304 and 40 C.F.R. §61.350(b)]
- WDF-48. An owner or operator subject to the requirements in §61.349 of this subpart shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor the control device operation as specified in the following paragraphs, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator. The owner or operator shall inspect at least once each operating day the data recorded by the monitoring equipment (e.g., temperature monitor or flow indicator) to ensure that the control device is operating properly. [Rule 19.304 and 40 C.F.R. §61.354(c)]
- a. For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or ± 0.5 $^{\circ}\text{C}$, whichever is greater. The temperature sensor shall be installed at a representative location in the combustion chamber. [Rule 19.304 and 40 C.F.R. §61.354(c)(1)]
- WDF-49. For a carbon adsorption system that does not regenerate the carbon bed directly on site in the control device (e.g., a carbon canister), either the concentration level of the organic compounds or the concentration level of benzene in the exhaust vent stream from the carbon adsorption system shall be monitored on a regular schedule, and the existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. The device shall be monitored on a daily basis or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater. As an alternative to conducting this monitoring, an owner or operator may replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and either the organic concentration or the benzene concentration in the gas stream vented to the carbon adsorption system. [Rule 19.304 and 40 C.F.R. §61.354(d)]

- WDF-50. Owners or operators using a closed-vent system that contains any bypass line that could divert a vent stream from a control device used to comply with the provisions of this subpart shall do the following: [Rule 19.304 and 40 C.F.R. §61.354(f)]
- a. Visually inspect the bypass line valve at least once every month, checking the position of the valve and the condition of the car-seal or closure mechanism required under §61.349(a)(1)(ii) to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. [Rule 19.304 and 40 C.F.R. §61.354(f)(1)]
- WDF-51. An owner or operator shall determine the total annual benzene quantity from facility waste by the following procedure: [Rule 19.304 and 40 C.F.R. §61.355(a)]
- a. For each waste stream subject to this subpart having a flow-weighted annual average water content greater than 10 percent water, on a volume basis as total water, or is mixed with water or other wastes at any time and the resulting mixture has an annual average water content greater than 10 percent as specified in §61.342(a), the owner or operator shall: [Rule 19.304 and 40 C.F.R. §61.355(a)(1)]
 - i. Determine the annual waste quantity for each waste stream using the procedures specified in paragraph (b) of Subpart FF. [Rule 19.304 and 40 C.F.R. §61.355(a)(1)(i)]
 - ii. Determine the flow-weighted annual average benzene concentration for each waste stream using the procedures specified in paragraph (c) of Subpart FF. [Rule 19.304 and 40 C.F.R. §61.355(a)(1)(ii)]
 - iii. Calculate the annual benzene quantity for each waste stream by multiplying the annual waste quantity of the waste stream times the flow-weighted annual average benzene concentration. [Rule 19.304 and 40 C.F.R. §61.355(a)(1)(iii)]
 - b. Total annual benzene quantity from facility waste is calculated by adding together the annual benzene quantity for each waste stream generated during the year and the annual benzene quantity for each process unit turnaround waste annualized according to paragraph (b)(4) of Subpart FF. [Rule 19.304 and 40 C.F.R. §61.355(a)(2)]
 - c. If the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr), then the owner or operator shall comply with the requirements of §61.342 (c), (d), or (e). [Rule 19.304 and 40 C.F.R. §61.355(a)(3)]
 - d. If the total annual benzene quantity from facility waste is less than 10 Mg/yr (11 ton/yr) but is equal to or greater than 1 Mg/yr (1.1 ton/yr), then the owner or operator shall: [Rule 19.304 and 40 C.F.R. §61.355(a)(4)]
 - i. Comply with the recordkeeping requirements of §61.356 and reporting requirements of §61.357 of this subpart; and [Rule 19.304 and 40 C.F.R. §61.355(a)(4)(i)]
 - ii. Repeat the determination of total annual benzene quantity from facility waste at least once per year and whenever there is a change in the process

- generating the waste that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr (11 ton/yr) or more. [Rule 19.304 and 40 C.F.R. §61.355(a)(4)(ii)]
- e. If the total annual benzene quantity from facility waste is less than 1 Mg/yr (1.1 ton/yr), then the owner or operator shall: [Rule 19.304 and 40 C.F.R. §61.355(a)(5)]
 - i. Comply with the recordkeeping requirements of §61.356 and reporting requirements of §61.357 of this subpart; and [Rule 19.304 and 40 C.F.R. §61.355(a)(5)(i)]
 - ii. Repeat the determination of total annual benzene quantity from facility waste whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more. [Rule 19.304 and 40 C.F.R. §61.355(a)(5)(ii)]
 - f. The benzene quantity in a waste stream that is generated less than one time per year, except as provided for process unit turnaround waste in paragraph (b)(4) of Subpart FF, shall be included in the determination of total annual benzene quantity from facility waste for the year in which the waste is generated unless the waste stream is otherwise excluded from the determination of total annual benzene quantity from facility waste in accordance with paragraphs (a) through (c) of Subpart FF. The benzene quantity in this waste stream shall not be annualized or averaged over the time interval between the activities that resulted in generation of the waste, for purposes of determining the total annual benzene quantity from facility waste. [Rule 19.304 and 40 C.F.R. §61.355(a)(6)]
- WDF-52. For purposes of the calculation required by paragraph (a) of Subpart FF, an owner or operator shall determine the annual waste quantity at the point of waste generation, unless otherwise provided in paragraphs (b) (1), (2), (3), and (4) of Subpart FF, by one of the methods given in paragraphs (b) (5) through (7) of Subpart FF. [Rule 19.304 and 40 C.F.R. §61.355(b)]
- a. The determination of annual waste quantity for wastes that are received at hazardous waste treatment, storage, or disposal facilities from offsite shall be made at the point where the waste enters the hazardous waste treatment, storage, or disposal facility. [Rule 19.304 and 40 C.F.R. §61.355(b)(3)]
 - b. Select the highest annual quantity of waste managed from historical records representing the most recent 5 years of operation or, if the facility has been in service for less than 5 years but at least 1 year, from historical records representing the total operating life of the facility; [Rule 19.304 and 40 C.F.R. §61.355(b)(5)]
 - c. Use the maximum design capacity of the waste management unit; or [Rule 19.304 and 40 C.F.R. §61.355(b)(6)]
 - d. Use measurements that are representative of maximum waste generation rates. [Rule 19.304 and 40 C.F.R. §61.355(b)(7)]

- WDF-53. For the purposes of the calculation required by §§61.355(a) of this subpart, an owner or operator shall determine the flow-weighted annual average benzene concentration in a manner that meets the requirements given in paragraph (c)(1) of Subpart FF using either of the methods given in paragraphs (c)(2) and (c)(3) of Subpart FF. [Rule 19.304 and 40 C.F.R. §61.355(c)]
- a. The determination of flow-weighted annual average benzene concentration shall meet all of the following criteria: [Rule 19.304 and 40 C.F.R. §61.355(c)(1)]
 - i. The determination shall be made at the point of waste generation except for the specific cases given in paragraphs (c)(1)(i)(A) through (D) of Subpart FF. [Rule 19.304 and 40 C.F.R. §61.355(c)(1)(i)]
 1. The determination for wastes that are received from offsite shall be made at the point where the waste enters the hazardous waste treatment, storage, or disposal facility. [Rule 19.304 and 40 C.F.R. §61.355(c)(1)(i)(C)]
 - ii. Volatilization of the benzene by exposure to air shall not be used in the determination to reduce the benzene concentration. [Rule 19.304 and 40 C.F.R. §61.355(c)(1)(ii)]
 - iii. Mixing or diluting the waste stream with other wastes or other materials shall not be used in the determination to reduce the benzene concentration. [Rule 19.304 and 40 C.F.R. §61.355(c)(1)(iii)]
 - iv. The determination shall be made prior to any treatment of the waste that removes benzene, except as specified in paragraphs (c)(1)(i)(A) through (D) of Subpart FF. [Rule 19.304 and 40 C.F.R. §61.355(c)(1)(iv)]
 - v. For wastes with multiple phases, the determination shall provide the weighted-average benzene concentration based on the benzene concentration in each phase of the waste and the relative proportion of the phases. [Rule 19.304 and 40 C.F.R. §61.355(c)(1)(v)]
 - b. Knowledge of the waste. The owner or operator shall provide sufficient information to document the flow-weighted annual average benzene concentration of each waste stream. Examples of information that could constitute knowledge include material balances, records of chemicals purchases, or previous test results provided the results are still relevant to the current waste stream conditions. If test data are used, then the owner or operator shall provide documentation describing the testing protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the flow-weighted annual average benzene concentration for the waste stream. When an owner or operator and the Administrator do not agree on determinations of the flow-weighted annual average benzene concentration based on knowledge of the waste, the procedures under paragraph (c)(3) of Subpart FF shall be used to resolve the disagreement. [Rule 19.304 and 40 C.F.R. §61.355(c)(2)]
- WDF-54. An owner or operator shall test equipment for compliance with no detectable emissions as required in §§61.343 through 61.347, and §61.349 of this subpart in accordance with the following requirements: [Rule 19.304 and 40 C.F.R. §61.355(h)]

- a. Monitoring shall comply with Method 21 from appendix A of 40 C.F.R. part 60. [Rule 19.304 and 40 C.F.R. §61.355(h)(1)]
- b. The detection instrument shall meet the performance criteria of Method 21. [Rule 19.304 and 40 C.F.R. §61.355(h)(2)]
- c. The instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21. [Rule 19.304 and 40 C.F.R. §61.355(h)(3)]
- d. Calibration gases shall be: [Rule 19.304 and 40 C.F.R. §61.355(h)(4)]
 - i. Zero air (less than 10 ppm of hydrocarbon in air); and [Rule 19.304 and 40 C.F.R. §61.355(h)(4)(i)]
 - ii. A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane. [Rule 19.304 and 40 C.F.R. §61.355(h)(4)(ii)]
- e. The background level shall be determined as set forth in Method 21. [Rule 19.304 and 40 C.F.R. §61.355(h)(5)]
- f. The instrument probe shall be traversed around all potential leak interfaces as close as possible to the interface as described in Method 21. [Rule 19.304 and 40 C.F.R. §61.355(h)(6)]
- g. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared to 500 ppm for determining compliance. [Rule 19.304 and 40 C.F.R. §61.355(h)(7)]

WDF-55. Each owner or operator of a facility subject to the provisions of this subpart shall comply with the recordkeeping requirements of Subpart FF. Each record shall be maintained in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. [Rule 19.304 and 40 C.F.R. §61.356(a)]

WDF-56. Each owner or operator shall maintain records that identify each waste stream at the facility subject to this subpart, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with this subpart. [Rule 19.304 and 40 C.F.R. §61.356(b)]

WDF-57. An owner or operator transferring waste off-site to another facility for treatment in accordance with §61.342(f) shall maintain documentation for each offsite waste shipment that includes the following information: Date waste is shipped offsite, quantity of waste shipped offsite, name and address of the facility receiving the waste, and a copy of the notice sent with the waste shipment. [Rule 19.304 and 40 C.F.R. §61.356(c)]

WDF-58. An owner or operator using control equipment in accordance with §§61.343 through 61.347 shall maintain engineering design documentation for all control equipment that is installed on the waste management unit. The documentation shall be retained for the life of the control equipment. If a control device is used, then the owner or operator shall maintain the control device records required by paragraph (f) of Subpart FF. [Rule 19.304 and 40 C.F.R. §61.356(d)]

- WDF-59. An owner or operator using a treatment process or wastewater treatment system unit in accordance with §61.348 of this subpart shall maintain the following records. The documentation shall be retained for the life of the unit. [Rule 19.304 and 40 C.F.R. §61.356(e)]
- a. A statement signed and dated by the owner or operator certifying that the unit is designed to operate at the documented performance level when the waste stream entering the unit is at the highest waste stream flow rate and benzene content expected to occur. [Rule 19.304 and 40 C.F.R. §61.356(e)(1)]
 - b. If engineering calculations are used to determine treatment process or wastewater treatment system unit performance, then the owner or operator shall maintain the complete design analysis for the unit. The design analysis shall include for example the following information: Design specifications, drawings, schematics, piping and instrumentation diagrams, and other documentation necessary to demonstrate the unit performance. [Rule 19.304 and 40 C.F.R. §61.356(e)(2)]
 - c. If a control device is used, then the owner or operator shall maintain the control device records required by paragraph (f) of Subpart FF. [Rule 19.304 and 40 C.F.R. §61.356(e)(4)]
- WDF-60. An owner or operator using a closed-vent system and control device in accordance with §61.349 of this subpart shall maintain the following records. The documentation shall be retained for the life of the control device. [Rule 19.304 and 40 C.F.R. §61.356(f)]
- a. A statement signed and dated by the owner or operator certifying that the closed-vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is or would be operating at the highest load or capacity expected to occur. [Rule 19.304 and 40 C.F.R. §61.356(f)(1)]
 - b. If engineering calculations are used to determine control device performance in accordance with §61.349(c), then a design analysis for the control device that includes for example: [Rule 19.304 and 40 C.F.R. §61.356(f)(2)]
 - i. Specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the owner or operator, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts. The design analysis shall address the following vent stream characteristics and control device operating parameters: [Rule 19.304 and 40 C.F.R. §61.356(f)(2)(i)]
 1. For a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time. [Rule 19.304 and 40 C.F.R. §61.356(f)(2)(i)(A)]
 2. For a carbon adsorption system that does not regenerate the carbon bed directly on-site in the control device, such as a carbon canister,

the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule. [Rule 19.304 and 40 C.F.R. §61.356(f)(2)(i)(G)]

- WDF-61. An owner or operator shall maintain a record for each visual inspection required by §§61.343 through 61.347 of this subpart that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions. The record shall include the date of the inspection, waste management unit and control equipment location where the problem is identified, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed. [Rule 19.304 and 40 C.F.R. §61.356(g)]
- WDF-62. An owner or operator shall maintain a record for each test of no detectable emissions required by §§61.343 through 61.347 and §61.349 of this subpart. The record shall include the following information: date the test is performed, background level measured during test, and maximum concentration indicated by the instrument reading measured for each potential leak interface. If detectable emissions are measured at a leak interface, then the record shall also include the waste management unit, control equipment, and leak interface location where detectable emissions were measured, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed. [Rule 19.304 and 40 C.F.R. §61.356(h)]
- WDF-63. For each treatment process and wastewater treatment system unit operated to comply with §61.348, the owner or operator shall maintain documentation that includes the following information regarding the unit operation: [Rule 19.304 and 40 C.F.R. §61.356(i)]
- Dates of startup and shutdown of the unit. [Rule 19.304 and 40 C.F.R. §61.356(i)(1)]
 - Periods when the unit is not operated as designed. [Rule 19.304 and 40 C.F.R. §61.356(i)(5)]
- WDF-64. For each control device, the owner or operator shall maintain documentation that includes the following information regarding the control device operation: [Rule 19.304 and 40 C.F.R. §61.356(j)]
- Dates of startup and shutdown of the closed-vent system and control device. [Rule 19.304 and 40 C.F.R. §61.356(j)(1)]

- b. A description of the operating parameter (or parameters) to be monitored to ensure that the control device will be operated in conformance with these standards and the control device's design specifications and an explanation of the criteria used for selection of that parameter (or parameters). This documentation shall be kept for the life of the control device. [Rule 19.304 and 40 C.F.R. §61.356(j)(2)]
 - c. Periods when the closed-vent system and control device are not operated as designed including all periods and the duration when: [Rule 19.304 and 40 C.F.R. §61.356(j)(3)]
 - i. Any valve car-seal or closure mechanism required under §61.349(a)(1)(ii) is broken or the by-pass line valve position has changed. [Rule 19.304 and 40 C.F.R. §61.356(j)(3)(i)]
 - d. If a thermal vapor incinerator is used, then the owner or operator shall maintain continuous records of the temperature of the gas stream in the combustion zone of the incinerator and records of all 3-hour periods of operation during which the average temperature of the gas stream in the combustion zone is more than 28 °C (50 °F) below the design combustion zone temperature. [Rule 19.304 and 40 C.F.R. §61.356(j)(4)]
 - e. If a carbon adsorber is used, then the owner or operator shall maintain records from the monitoring device of the concentration of organics or the concentration of benzene in the control device outlet gas stream. If the concentration of organics or the concentration of benzene in the control device outlet gas stream is monitored, then the owner or operator shall record all 3-hour periods of operation during which the concentration of organics or the concentration of benzene in the exhaust stream is more than 20 percent greater than the design value. If the carbon bed regeneration interval is monitored, then the owner or operator shall record each occurrence when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time. [Rule 19.304 and 40 C.F.R. §61.356(j)(9)]
 - f. If a carbon adsorber that is not regenerated directly on site in the control device is used, then the owner or operator shall maintain records of dates and times when the control device is monitored, when breakthrough is measured, and shall record the date and time then the existing carbon in the control device is replaced with fresh carbon. [Rule 19.304 and 40 C.F.R. §61.356(j)(10)]
- WDF-65. Each owner or operator of a chemical plant, petroleum refinery, coke by-product recovery plant, and any facility managing wastes from these industries shall submit to the Administrator within 90 days after January 7, 1993, or by the initial startup for a new source with an initial startup after the effective date, a report that summarizes the regulatory status of each waste stream subject to §61.342 and is determined by the procedures specified in §61.355(c) to contain benzene. Each owner or operator subject to this subpart who has no benzene onsite in wastes, products, by-products, or intermediates shall submit an initial report that is a statement to this effect. For all other owners or operators subject to this subpart, the report shall include the following information: [Rule 19.304 and 40 C.F.R. §61.357(a)]

- a. Total annual benzene quantity from facility waste determined in accordance with §61.355(a) of this subpart. [Rule 19.304 and 40 C.F.R. §61.357(a)(1)]
 - b. A table identifying each waste stream and whether or not the waste stream will be controlled for benzene emissions in accordance with the requirements of this subpart. [Rule 19.304 and 40 C.F.R. §61.357(a)(2)]
 - c. For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of this subpart the following information shall be added to the table: [Rule 19.304 and 40 C.F.R. §61.357(a)(3)]
 - i. Whether or not the water content of the waste stream is greater than 10 percent; [Rule 19.304 and 40 C.F.R. §61.357(a)(3)(i)]
 - ii. Whether or not the waste stream is a process wastewater stream, product tank drawdown, or landfill leachate; [Rule 19.304 and 40 C.F.R. §61.357(a)(3)(ii)]
 - iii. Annual waste quantity for the waste stream; [Rule 19.304 and 40 C.F.R. §61.357(a)(3)(iii)]
 - iv. Range of benzene concentrations for the waste stream; [Rule 19.304 and 40 C.F.R. §61.357(a)(3)(iv)]
 - v. Annual average flow-weighted benzene concentration for the waste stream; and [Rule 19.304 and 40 C.F.R. §61.357(a)(3)(v)]
 - vi. Annual benzene quantity for the waste stream. [Rule 19.304 and 40 C.F.R. §61.357(a)(3)(vi)]
 - d. The information required in paragraphs (a) (1), (2), and (3) of Subpart FF should represent the waste stream characteristics based on current configuration and operating conditions. An owner or operator only needs to list in the report those waste streams that contact materials containing benzene. The report does not need to include a description of the controls to be installed to comply with the standard or other information required in §61.10(a). [Rule 19.304 and 40 C.F.R. §61.357(a)(4)]
- WDF-66. If the total annual benzene quantity from facility waste is less than 1 Mg/yr (1.1 ton/yr), then the owner or operator shall submit to the Administrator a report that updates the information listed in paragraphs (a)(1) through (a)(3) of Subpart FF whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more. [Rule 19.304 and 40 C.F.R. §61.357(b)]
- WDF-67. If the total annual benzene quantity from facility waste is less than 10 Mg/yr (11 ton/yr) but is equal to or greater than 1 Mg/yr (1.1 ton/yr), then the owner or operator shall submit to the Administrator a report that updates the information listed in paragraphs (a)(1) through (a)(3) of Subpart FF. The report shall be submitted annually and whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr (11 ton/yr) or more. If the information in the annual report required by paragraphs (a)(1) through (a)(3) of Subpart FF is not changed in the following year,

the owner or operator may submit a statement to that effect. [Rule 19.304 and 40 C.F.R. §61.357(c)]

- WDF-68. If the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr), then the owner or operator shall submit to the Administrator the following reports: [Rule 19.304 and 40 C.F.R. §61.357(d)]
- a. Within 90 days after January 7, 1993, unless a waiver of compliance under §61.11 of this part is granted, or by the date of initial startup for a new source with an initial startup after the effective date, a certification that the equipment necessary to comply with these standards has been installed and that the required initial inspections or tests have been carried out in accordance with this subpart. If a waiver of compliance is granted under §61.11, the certification of equipment necessary to comply with these standards shall be submitted by the date the waiver of compliance expires. [Rule 19.304 and 40 C.F.R. §61.357(d)(1)]
 - b. Beginning on the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of Subpart FF, the owner or operator shall submit annually to the Administrator a report that updates the information listed in paragraphs (a)(1) through (a)(3) of Subpart FF. If the information in the annual report required by paragraphs (a)(1) through (a)(3) of Subpart FF is not changed in the following year, the owner or operator may submit a statement to that effect. [Rule 19.304 and 40 C.F.R. §61.357(d)(2)]
 - c. Beginning 3 months after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of Subpart FF, the owner or operator shall submit quarterly to the Administrator a certification that all of the required inspections have been carried out in accordance with the requirements of this subpart. [Rule 19.304 and 40 C.F.R. §61.357(d)(6)]
 - d. Beginning 3 months after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of Subpart FF, the owner or operator shall submit a report quarterly to the Administrator. [Rule 19.304 and 40 C.F.R. §61.357(d)(7)]
 - e. Beginning one year after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of Subpart FF, the owner or operator shall submit annually to the Administrator a report that summarizes all inspections required by §§61.342 through 61.354 during which detectable emissions are measured or a problem (such as a broken seal, gap or other problem) that could result in benzene emissions is identified, including information about the repairs or corrective action taken. [Rule 19.304 and 40 C.F.R. §61.357(d)(8)]
- WDF-69. Alternative means of emission limitation under §61.353 of 40 C.F.R. Part 61, Subpart FF will not be delegated to States. [Rule 19.304 and 40 C.F.R. §61.358(b)]

40 C.F.R. § 63 Subpart DD

Sources SN-40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8,
40F.FT9, 41F.FT10, 40F.FTA, 40F.FT11, 40F.TX1, BCC, 45F.TX10

- WDF-70. For each off-site material management unit that is part of an affected source, the owner or operator must meet the requirements in either paragraph (b)(1)(i), (b)(1)(ii), or (b)(1)(iii) of this section except for those off-site material management units exempted under paragraph (b)(2) of this section. [Rule 19.304 and 40 C.F.R. § 63.683(b)(1)]
- a. The owner or operator controls air emissions from the off-site material management unit in accordance with the applicable standards specified in §§63.685 through 63.689 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.683(b)(1)(i)]
- WDF-71. An off-site material management unit is exempted from the requirements in paragraph (b)(1) of this section when the owner or operator meets one of the exemptions provided in paragraphs (b)(2)(i) through (b)(2)(iv) of this section as applicable to the unit. [Rule 19.304 and 40 C.F.R. § 63.683(b)(2)]
- a. An off-site material management unit is exempted from the requirements in paragraph (b)(1) of this section if the off-site material management unit is also subject to another subpart under 40 C.F.R. part 63 or 40 C.F.R. part 61, and the owner or operator is controlling the HAP listed in Table 1 of this subpart that are emitted from the unit in compliance with the provisions specified in the other applicable subpart under part 61 or part 63. [Rule 19.304 and 40 C.F.R. § 63.683(b)(2)(i)]
- WDF-72. Equipment leaks. The owner or operator must control equipment leaks from each equipment component that is part of the affected source specified in §63.680(c)(3) of this subpart by implementing leak detection and control measures in accordance with the standards specified in §63.691 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.683(d)]
- WDF-73. At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Rule 19.304 and 40 C.F.R. § 63.683(e)]

- WDF-74. In addition to the cases listed in §63.695(e)(4), deviation means any of the cases listed in paragraphs (f)(1) through (6) of this section. [Rule 19.304 and 40 C.F.R. § 63.683(f)]
- a. Any instance in which an affected source subject to this subpart, or an owner or operator of such a source, fails to meet any requirement or obligation established by this subpart, including, but not limited to, any emission limit, operating limit or work practice standard. [Rule 19.304 and 40 C.F.R. § 63.683(f)(1)]
 - b. When a performance test indicates that emissions of a pollutant in Table 1 to this subpart are exceeding the emission standard for the pollutant specified in Table 1 to this subpart. [Rule 19.304 and 40 C.F.R. § 63.683(f)(2)]
 - c. When the average value of a monitored operating parameter, based on the data averaging period for compliance specified in §63.695, does not meet the operating limit specified in §63.693. [Rule 19.304 and 40 C.F.R. § 63.683(f)(3)]
 - d. When an affected source discharges directly into the atmosphere from any of the sources specified in paragraphs (f)(4)(i) and (ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.683(f)(4)]
 - i. A pressure relief device, as defined in §63.681. [Rule 19.304 and 40 C.F.R. § 63.683(f)(4)(i)]
 - ii. A bypass, as defined in §63.681. [Rule 19.304 and 40 C.F.R. § 63.683(f)(4)(ii)]
 - e. Any instance in which the affected source subject to this subpart, or an owner or operator of such a source, fails to meet any term or condition specified in paragraph (f)(5)(i) or (ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.683(f)(5)]
 - i. Any term or condition that is adopted to implement an applicable requirement in this subpart. [Rule 19.304 and 40 C.F.R. § 63.683(f)(5)(i)]
 - ii. Any term or condition relating to compliance with this subpart that is included in the operating permit for an affected source to obtain such a permit. [Rule 19.304 and 40 C.F.R. § 63.683(f)(5)(ii)]
 - f. Any failure to collect required data, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). [Rule 19.304 and 40 C.F.R. § 63.683(f)(6)]
- WDF-75. The provisions of this section apply to the control of air emissions from tanks for which §63.683(b)(1)(i) of this subpart references the use of this section for such air emission control. [Rule 19.304 and 40 C.F.R. § 63.685(a)]
- WDF-76. According to the date an affected source commenced construction or reconstruction and the date an affected source receives off-site material for the first time as established in §63.680(e)(i) through (iii), the owner or operator shall control air emissions from each tank subject to this section in accordance with either paragraph (b)(1)(i) or (ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.685(b)]

- a. For a tank that is part of a new affected source but the tank is not used for a waste stabilization process as defined in §63.681, the owner or operator shall determine whether the tank is required to use either Tank Level 1 controls or Tank Level 2 controls as specified for the tank by Table 5 of this subpart based on the off-site material maximum HAP vapor pressure and the tank's design capacity. The owner or operator shall control air emissions from a tank required by Table 5 to use Tank Level 1 controls in accordance with the requirements of paragraph (c) of this section. The owner or operator shall control air emissions from a tank required by Table 5 to use Tank Level 2 controls in accordance with the requirements of paragraph (d) of this section. [Rule 19.304 and 40 C.F.R. § 63.685(b)(2)]

WDF-77. Owners and operators controlling air emissions from a tank using Tank Level 1 controls shall meet the following requirements: [Rule 19.304 and 40 C.F.R. § 63.685(c)]

- a. The owner or operator shall determine the maximum HAP vapor pressure for an off-site material to be managed in the tank using Tank Level 1 controls before the first time the off-site material is placed in the tank. The maximum HAP vapor pressure shall be determined using the procedures specified in §63.694(j). Thereafter, the owner or operator shall perform a new determination whenever changes to the off-site material managed in the tank could potentially cause the maximum HAP vapor pressure to increase to a level that is equal to or greater than the maximum HAP vapor pressure limit for the tank design capacity category specified in Table 3, Table 4, or Table 5 of this subpart, as applicable to the tank. [Rule 19.304 and 40 C.F.R. § 63.685(c)(1)]
- b. The owner or operator must control air emissions from the tank in accordance with the requirements in either paragraph (c)(2)(i), (c)(2)(ii), or (c)(2)(iii) of this section, as applicable to the tank. [Rule 19.304 and 40 C.F.R. § 63.685(c)(2)]
 - i. As an alternative to meeting the requirements in paragraph (c)(2)(i) of this section, an owner or operator may control air emissions from the tank in accordance with the provisions for Tank Level 2 controls as specified in paragraph (d) of this section. [Rule 19.304 and 40 C.F.R. § 63.685(c)(2)(ii)]

WDF-78. Owners and operators controlling air emissions from a tank using Tank Level 2 controls shall use one of the following tanks: [Rule 19.304 and 40 C.F.R. § 63.685(d)]

- a. A tank vented through a closed-vent system to a control device in accordance with the requirements specified in paragraph (g) of this section; [Rule 19.304 and 40 C.F.R. § 63.685(d)(3)]
- b. A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in paragraph (i) of this section. [Rule 19.304 and 40 C.F.R. § 63.685(d)(5)]

WDF-79. The owner or operator who controls tank air emissions by venting to a control device shall meet the requirements specified in paragraphs (g)(1) through (g)(3) of this section. [Rule 19.304 and 40 C.F.R. § 63.685(g)]

- a. The tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements: [Rule 19.304 and 40 C.F.R. § 63.685(g)(1)]
 - i. The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank. [Rule 19.304 and 40 C.F.R. § 63.685(g)(1)(i)]
 - ii. Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions. [Rule 19.304 and 40 C.F.R. § 63.685(g)(1)(ii)]
 - iii. The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the off-site material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed. [Rule 19.304 and 40 C.F.R. § 63.685(g)(1)(iii)]
 - iv. The closed-vent system and control device shall be designed and operated in accordance with the requirements of §63.693 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.685(g)(1)(iv)]
- b. Whenever an off-site material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except that venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times: [Rule 19.304 and 40 C.F.R. § 63.685(g)(2)]
 - i. To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the

- owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank. [Rule 19.304 and 40 C.F.R. § 63.685(g)(2)(i)]
 - ii. To remove accumulated sludge or other residues from the bottom of the tank. [Rule 19.304 and 40 C.F.R. § 63.685(g)(2)(ii)]
 - c. The owner or operator shall inspect and monitor the air emission control equipment in accordance with the procedures specified in §63.695 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.685(g)(3)]
- WDF-80. The owner or operator who elects to control air emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in paragraphs (i)(1) through (3) of this section. [Rule 19.304 and 40 C.F.R. § 63.685(i)]
- a. The tank shall be located inside an enclosure. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 C.F.R. 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or to direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” initially when the enclosure is first installed and, thereafter, annually. [Rule 19.304 and 40 C.F.R. § 63.685(i)(1)]
 - b. The enclosure shall be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in §63.693 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.685(i)(2)]
 - c. The owner or operator shall inspect and monitor the closed-vent system and control device as specified in §63.693. [Rule 19.304 and 40 C.F.R. § 63.685(i)(3)]
- WDF-81. The provisions of this section apply to the control of air emissions from containers for which §63.683(b)(1)(i) of this subpart references the use of this section for such air emission control. [Rule 19.304 and 40 C.F.R. § 63.688 (a)]
- WDF-82. The owner or operator shall control air emissions from each container subject to this section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in paragraph (c) of this section apply to the container. [Rule 19.304 and 40 C.F.R. § 63.688 (b)]
- a. For a container having a design capacity greater than 0.1 m³ and less than or equal to 0.46 m³, the owner or operator must control air emissions from the

container in accordance with the requirements in either paragraph (b)(1)(i) or (b)(1)(ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.688 (b)(1)]

- i. The owner or operator controls air emissions from the container in accordance with the standards for Container Level 1 controls as specified in subpart PP of this part—National Emission Standards for Containers, except that §§63.922(d)(4) and (5) and 63.923(d)(4) and (5) shall not apply for the purposes of this subpart. [Rule 19.304 and 40 C.F.R. § 63.688 (b)(1)(i)]
- ii. As an alternative to meeting the requirements in paragraph (b)(1)(i) of this section, an owner or operator may choose to control air emissions from the container in accordance with the standards for either Container Level 2 controls or Container Level 3 controls as specified in subpart PP of this part—National Emission Standards for Containers, except that §§63.922(d)(4) and (5) and 63.923(d)(4) and (5) shall not apply for the purposes of this subpart. [Rule 19.304 and 40 C.F.R. § 63.688 (b)(1)(ii)]
- b. For a container having a design capacity greater than 0.46 m³ and the container is not in light-material service as defined in §63.681 of this subpart, the owner or operator must control air emissions from the container in accordance with the requirements in either paragraph (b)(1)(i) or (b)(1)(ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.688 (b)(2)]
- c. For a container having a design capacity greater than 0.46 m³ and the container is in light-material service as defined in §63.681 of this subpart, the owner or operator must control air emissions from the container in accordance with the requirements in either paragraph (b)(3)(i) or (b)(3)(ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.688 (b)(3)]
 - i. The owner or operator controls air emissions from the container in accordance with the standards for Container Level 2 controls as specified in subpart PP of this part—National Emission Standards for Containers, except that §§63.922(d)(4) and (5) and 63.923(d)(4) and (5) shall not apply for the purposes of this subpart. [Rule 19.304 and 40 C.F.R. § 63.688 (b)(3)(i)]
 - ii. As an alternative to meeting the requirements in paragraph (b)(3)(i) of this section, an owner or operator may choose to control air emissions from the container in accordance with the standards for Container Level 3 controls as specified in 40 C.F.R. part 63, subpart PP—National Emission Standards for Containers. [Rule 19.304 and 40 C.F.R. § 63.688 (b)(3)(ii)]

WDF-83. The provisions of this section apply to the control of air emissions from transfer systems for which §63.683(b)(1)(i) of this subpart references the use of this section for such air emission control. [Rule 19.304 and 40 C.F.R. § 63.689(a)]

WDF-84. For each transfer system that is subject to this section but is not an individual drain system, the owner or operator shall control air emissions by using one of the transfer systems specified in paragraphs (c)(1) through (c)(3) of this section. [Rule 19.304 and 40 C.F.R. § 63.689(c)]

- a. A transfer system that uses covers in accordance with the requirements specified in paragraph (d) of this section. [Rule 19.304 and 40 C.F.R. § 63.689(c)(1)]
- b. A transfer system that consists of continuous hard-piping. All joints or seams between the pipe sections shall be permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange). [Rule 19.304 and 40 C.F.R. § 63.689(c)(2)]
- c. A transfer system that is enclosed and vented through a closed-vent system to a control device in accordance with the requirements specified in paragraphs (c)(3)(i) and (c)(3)(ii) of this section. [Rule 19.304 and 40 C.F.R. 63.689(c)(3)]
 - i. The transfer system is designed and operated such that an internal pressure in the vapor headspace in the enclosure is maintained at a level less than atmospheric pressure when the control device is operating, and [Rule 19.304 and 40 C.F.R. § 63.689(c)(3)(i)]
 - ii. The closed-vent system and control device are designed and operated in accordance with the requirements of §63.693 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.689(c)(3)(ii)]

WDF-85. Owners and operators controlling air emissions from a transfer system using covers in accordance with the provisions of paragraph (c)(1) of this section shall meet the requirements specified in paragraphs (d)(1) through (d)(6) of this section. [Rule 19.304 and 40 C.F.R. § 63.689(d)]

- a. The cover and its closure devices shall be designed to form a continuous barrier over the entire surface area of the off-site material as it is conveyed by the transfer system except for the openings at the inlet and outlet to the transfer system through which the off-site material passes. The inlet and outlet openings used for passage of the off-site material through the transfer system shall be the minimum size required for practical operation of the transfer system. [Rule 19.304 and 40 C.F.R. § 63.689(d)(1)]
- b. The cover shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section joints or between the interface of the cover edge and its mounting. [Rule 19.304 and 40 C.F.R. § 63.689(d)(2)]
- c. Except for the inlet and outlet openings to the transfer system through which the off-site material passes, each opening in the cover shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device. [Rule 19.304 and 40 C.F.R. § 63.689(d)(3)]
- d. The cover and its closure devices shall be made of suitable materials that will minimize exposure of the off-site material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability; the effects of any contact with the material or its vapors conveyed in the transfer system; the effects of outdoor exposure to wind, moisture, and sunlight; and the

operating practices used for the transfer system on which the cover is installed. [Rule 19.304 and 40 C.F.R. § 63.689(d)(4)]

- e. Whenever an off-site material is in the transfer system, the cover shall be installed with each closure device secured in the closed position, except the opening of closure devices or removal of the cover is allowed to provide access to the transfer system for performing routine inspection, maintenance, repair, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a hatch or remove the cover to repair conveyance equipment mounted under the cover or to clear a blockage of material inside the system. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable. [Rule 19.304 and 40 C.F.R. § 63.689(d)(5)]
- f. The owner or operator shall inspect the air emission control equipment in accordance with the requirements specified in §63.695 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.689(d)(6)]

WDF-86. The provisions of this section apply to the control of air emissions from equipment leaks for which §63.683(d) references the use of this section for such air emissions control. [Rule 19.304 and 40 C.F.R. § 63.691(a)]

WDF-87. According to the date an affected source commenced construction or reconstruction and the date an affected source receives off-site material for the first time, as established in §63.680(e)(i) through (iii), the owner or operator shall control the HAP emitted from equipment leaks in accordance with the applicable provisions specified in either paragraph (b)(1) or (2) of this section. [Rule 19.304 and 40 C.F.R. § 63.691(b)]

- a. 63.691(b)(1)
 - i. The owner or operator controls the HAP emitted from equipment leaks in accordance with §§61.241 through 61.247 in 40 C.F.R. part 61, subpart V—National Emission Standards for Equipment Leaks, with the difference noted in paragraphs (b)(1)(iii) and (iv) of this section for the purposes of this subpart; or [Rule 19.304 and 40 C.F.R. § 63.691(b)(1)(i)]
 - ii. The owner or operator controls the HAP emitted from equipment leaks in accordance with §§63.161 through 63.182 in subpart H of this part—National Emission Standards for Organic Hazardous Air Pollutants from Equipment Leaks, with the differences noted in paragraphs (b)(2)(i) through (iv) of this section for the purposes of this subpart. [Rule 19.304 and 40 C.F.R. § 63.691(b)(1)(ii)]
 - iii. On or after March 18, 2015, for the purpose of complying with the requirements of 40 C.F.R. 61.242-6(a)(2) or the requirements of §63.167(a)(2), the open end is sealed when instrument monitoring of the open-ended valve or line conducted according to Method 21 of 40 C.F.R. part 60, appendix A indicates no readings of 500 ppm or greater. [Rule 19.304 and 40 C.F.R. § 63.691(b)(1)(iii)]

- iv. On or after March 18, 2015, for the purpose of complying with the requirements of 40 C.F.R. 61.242-6(d) or the requirements of §63.167(d), open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset and that are exempt from the requirements in 40 C.F.R. 61.242-6(a), (b), and (c) or §63.167(a), (b), and (c) must comply with the requirements in §63.693(c)(2). [Rule 19.304 and 40 C.F.R. § 63.691(b)(1)(iv)]
- b. The owner or operator controls the HAP emitted from equipment leaks in accordance with §§63.161 through 63.183 in subpart H of this part—National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks, with the differences noted in paragraphs (b)(2)(i) through (v) of this section for the purposes of this subpart. [Rule 19.304 and 40 C.F.R. § 63.691(b)(2)]
 - i. For each valve in gas/vapor or in light liquid service, as defined in §63.681, that is part of an affected source under this subpart, an instrument reading that defines a leak is 500 ppm or greater as detected by Method 21 of 40 C.F.R. part 60, appendix A. [Rule 19.304 and 40 C.F.R. § 63.691(b)(2)(i)]
 - ii. For each pump in light liquid service, as defined in §63.681, that is part of an affected source under this subpart, an instrument reading that defines a leak is 1,000 ppm or greater as detected by Method 21 of 40 C.F.R. part 60, appendix A. Repair is not required unless an instrument reading of 2,000 ppm or greater is detected. [Rule 19.304 and 40 C.F.R. § 63.691(b)(2)(ii)]
 - iii. On or after March 18, 2015, for the purpose of complying with the requirements of §63.167(a)(2), the open end is sealed when instrument monitoring of the open-ended valve or line conducted according to Method 21 of 40 C.F.R. part 60, appendix A indicates no readings of 500 ppm or greater. [Rule 19.304 and 40 C.F.R. § 63.691(b)(2)(iii)]
 - iv. On or after March 18, 2015, for the purpose of complying with the requirements of §63.167(d), open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset and that are exempt from the requirements in §63.167(a), (b), and (c) must comply with the requirements in §63.693(c)(2). [Rule 19.304 and 40 C.F.R. § 63.691(b)(2)(iv)]
 - v. For the purposes of this subpart, the pressure relief device requirements of §63.691(c) of this subpart rather than those of §63.165 or of 40 C.F.R. 61.242-4, as applicable, shall apply. The pressure relief device requirements of §63.691(c)(3) and (4) apply in addition to the requirements of §63.169 or of 40 C.F.R. 61.242-8, as applicable, for pressure relief devices in liquid service. [Rule 19.304 and 40 C.F.R. § 63.691(b)(2)(v)]

WDF-88. Requirements for pressure relief devices. Except as provided in paragraph (c)(4) of this section, the owner or operator must comply with the requirements specified in

paragraphs (c)(1) through (3) of this section for pressure relief devices in off-site material service. [Rule 19.304 and 40 C.F.R. § 63.691(c)]

- a. Operating requirements. Except during a pressure release event, operate each pressure relief device in gas/vapor service with an instrument reading of less than 500 ppm above background as detected by Method 21 of 40 C.F.R. part 60, appendix A. [Rule 19.304 and 40 C.F.R. § 63.691(c)(1)]
- b. Pressure release requirements. For pressure relief devices in gas/vapor service, the owner or operator must comply with either paragraph (c)(2)(i) or (ii) of this section following a pressure release, as applicable. [Rule 19.304 and 40 C.F.R. § 63.691(c)(2)]
 - i. If the pressure relief device does not consist of or include a rupture disk, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 ppm above background, as detected by Method 21 of 40 C.F.R. part 60, appendix A, no later than 5 calendar days after the pressure release device returns to off-site material service following a pressure release, except as provided in §63.171. [Rule 19.304 and 40 C.F.R. § 63.691(c)(2)(i)]
 - ii. If the pressure relief device consists of or includes a rupture disk, except as provided in §63.171, install a replacement disk as soon as practicable but no later than 5 calendar days after the pressure release. [Rule 19.304 and 40 C.F.R. § 63.691(c)(2)(ii)]
- c. Pressure release management. Except as provided in paragraph (c)(4) of this section, emissions of HAP listed in Table 1 of this subpart may not be discharged directly to the atmosphere from pressure relief devices in off-site material service, and according to the date an affected source commenced construction or reconstruction and the date an affected source receives off-site material for the first time, as established in §63.680(e)(1)(i) through (iii), the owner or operator must comply with the requirements specified in paragraphs (c)(3)(i) and (ii) of this section for all pressure relief devices in off-site material service. [Rule 19.304 and 40 C.F.R. § 63.691(c)(3)]
 - i. The owner or operator must equip each pressure relief device in off-site material service with a device(s) or use a monitoring system. The device or monitoring system may be either specific to the pressure release device itself or may be associated with the process system or piping, sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices or monitoring systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, pressure monitor, or parametric monitoring system. The devices or monitoring systems must be capable of meeting the requirements specified in paragraphs (c)(3)(i)(A) through (C) of this section. [Rule 19.304 and 40 C.F.R. § 63.691(c)(3)(i)]
 1. Identifying the pressure release; [Rule 19.304 and 40 C.F.R. § 63.691(c)(3)(i)(A)]
 2. Recording the time and duration of each pressure release; and [Rule 19.304 and 40 C.F.R. § 63.691(c)(3)(i)(B)]

3. Notifying operators immediately that a pressure release is occurring. [Rule 19.304 and 40 C.F.R. § 63.691(c)(3)(i)(C)]
- ii. If any pressure relief device in off-site material service releases directly to the atmosphere as a result of a pressure release event, the owner or operator must calculate the quantity of HAP listed in Table 1 of this subpart released during each pressure release event and report this quantity as required in §63.697(b)(5). Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge. [Rule 19.304 and 40 C.F.R. § 63.691(c)(3)(ii)]

WDF-89. The provisions of this section apply to closed-vent systems and control devices used to control air emissions for which another standard references the use of this section for such air emission control. [Rule 19.304 and 40 C.F.R. § 63.693 (a)]

WDF-90. For each closed-vent system and control device used to comply with this section, the owner or operator shall meet the following requirements: [Rule 19.304 and 40 C.F.R. § 63.693(b)]

- a. The owner or operator must use a closed-vent system that meets the requirements specified in paragraph (c) of this section. [Rule 19.304 and 40 C.F.R. § 63.693(b)(1)]
- b. The owner or operator must use a control device that meets the requirements specified in paragraphs (d) through (h) of this section as applicable to the type and design of the control device selected by the owner or operator to comply with the provisions of this section. [Rule 19.304 and 40 C.F.R. § 63.693(b)(2)]
- c. Whenever gases or vapors containing HAP are routed from a tank through a closed-vent system connected to a control device used to comply with the requirements of §63.685(b)(1), (2), or (3), the control device must be operating except as provided for in paragraphs (b)(3)(i) and (ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.693(b)(3)]
 - i. The control device may only be bypassed for the purpose of performing planned routine maintenance of the closed-vent system or control device in situations when the routine maintenance cannot be performed during periods that tank emissions are vented to the control device. [Rule 19.304 and 40 C.F.R. § 63.693(b)(3)(i)]
 - ii. On an annual basis, the total time that the closed-vent system or control device is bypassed to perform routine maintenance shall not exceed 240 hours per each calendar year. [Rule 19.304 and 40 C.F.R. § 63.693(b)(3)(i)]
- d. The owner or operator must inspect and monitor each closed-vent system in accordance with the requirements specified in either paragraph (b)(4)(i) or (b)(4)(ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.693(b)(4)]
 - i. The owner or operator inspects and monitors the closed-vent system in accordance with the requirements specified in §63.695(c) of this subpart, and complies with the applicable recordkeeping requirements in §63.696

- of this subpart and the applicable reporting requirements in §63.697 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.693(b)(4)(i)]
- ii. As an alternative to meeting the requirements specified in paragraph (b)(4)(i) of this section, the owner or operator may choose to inspect and monitor the closed-vent system in accordance with the requirements under 40 C.F.R. part 63, subpart H—National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks as specified in 40 C.F.R. 63.172(f) through (h), and complies with the applicable recordkeeping requirements in 40 C.F.R. 63.181 and the applicable reporting requirements in 40 C.F.R. 63.182. [Rule 19.304 and 40 C.F.R. § 63.693(b)(4)(ii)]
 - e. The owner or operator must monitor the operation of each control device in accordance with the requirements specified in paragraphs (d) through (h) of this section as applicable to the type and design of the control device selected by the owner or operator to comply with the provisions of this section. [Rule 19.304 and 40 C.F.R. § 63.693(b)(5)]
 - f. The owner or operator shall maintain records for each control device in accordance with the requirements of §63.696 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.693(b)(6)]
 - g. The owner or operator shall prepare and submit reports for each control device in accordance with the requirements of §63.697 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.693(b)(7)]
 - h. In the case when an owner or operator chooses to use a design analysis to demonstrate compliance of a control device with the applicable performance requirements specified in this section as provided for in paragraphs (d) through (g) of this section, the Administrator may require that the design analysis be revised or amended by the owner or operator to correct any deficiencies identified by the Administrator. If the owner or operator and the Administrator do not agree on the acceptability of using the design analysis (including any changes required by the Administrator) to demonstrate that the control device achieves the applicable performance requirements, then the disagreement must be resolved using the results of a performance test conducted by the owner or operator in accordance with the requirements of §63.694(l). The Administrator may choose to have an authorized representative observe the performance test conducted by the owner or operator. Should the results of this performance test not agree with the determination of control device performance based on the design analysis, then the results of the performance test will be used to establish compliance with this subpart. [Rule 19.304 and 40 C.F.R. § 63.693(b)(8)]

WDF-91. Closed-vent system requirements.

- a. The vent stream required to be controlled shall be conveyed to the control device by either of the following closed-vent systems: [Rule 19.304 and 40 C.F.R. § 63.693(c)(1)]

- i. A closed-vent system that is designed to operate with no detectable organic emissions using the procedure specified in §63.694(k) of this subpart; or [Rule 19.304 and 40 C.F.R. § 63.693(c)(1)(i)]
 - ii. A closed-vent system that is designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating. [Rule 19.304 and 40 C.F.R. § 63.693(c)(1)(ii)]
- b. In situations when the closed-vent system includes bypass devices that could be used to divert a vent stream from the closed-vent system to the atmosphere at a point upstream of the control device inlet, each bypass device must be equipped with either a flow indicator as specified in paragraph (c)(2)(i) of this section or a seal or locking device as specified in paragraph (c)(2)(ii) of this section, except as provided for in paragraph (c)(2)(iii) of this section: [Rule 19.304 and 40 C.F.R. § 63.693(c)(2)]
 - i. If a seal or locking device is used to comply with paragraph (c)(2) of this section, the device shall be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle, damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. [Rule 19.304 and 40 C.F.R. § 63.693(c)(2)(ii)]

WDF-92. Carbon adsorption control device requirements. [Rule 19.304 and 40 C.F.R. § 63.693(d)]

- a. The carbon adsorption system must achieve the performance specifications in either paragraph (d)(1)(i) or (d)(1)(ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.693(d)(1)]
 - i. Recover 95 percent or more, on a weight-basis, of the total organic compounds (TOC), less methane and ethane, contained in the vent stream entering the carbon adsorption system; or [Rule 19.304 and 40 C.F.R. § 63.693(d)(1)(i)]
 - ii. Recover 95 percent or more, on a weight-basis, of the total HAP listed in Table 1 of this subpart contained in the vent stream entering the carbon adsorption system. [Rule 19.304 and 40 C.F.R. § 63.693(d)(1)(ii)]
- b. The owner or operator must demonstrate that the carbon adsorption system achieves the performance requirements in paragraph (d)(1) of this section by either performing a performance test as specified in paragraph (d)(2)(i) of this section or a design analysis as specified in paragraph (d)(2)(ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.693(d)(2)]
 - i. An owner or operator choosing to use a design analysis to demonstrate compliance must include as part of this design analysis the information specified in either paragraph (d)(2)(ii)(A) or (d)(2)(ii)(B) of this section as

applicable to the carbon adsorption system design. [Rule 19.304 and 40 C.F.R. § 63.693(d)(2)(ii)]

1. For a nonregenerable carbon adsorption system (e.g., a carbon canister), the design analysis shall address the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration, carbon bed capacity, activated carbon type and working capacity, and design carbon replacement interval based on the total carbon working capacity of the control device and emission point operating schedule. [Rule 19.304 and 40 C.F.R. § 63.693(d)(2)(ii)(B)]
- c. The owner or operator must monitor the operation of the carbon adsorption system in accordance with the requirements of §63.695(e) using one of the continuous monitoring systems specified in paragraphs (d)(3)(i) through (iii) of this section. Monitoring the operation of a nonregenerable carbon adsorption system (e.g., a carbon canister) using a continuous monitoring system is not required when the carbon canister or the carbon in the control device is replaced on a regular basis according to the requirements in paragraph (d)(4)(iii) of this section. [Rule 19.304 and 40 C.F.R. § 63.693(d)(3)]
- d. The owner or operator shall manage the carbon used for the carbon adsorption system, as follows: [Rule 19.304 and 40 C.F.R. § 63.693(d)(4)]
 - i. Following the initial startup of the control device, all carbon in the control device shall be replaced with fresh carbon on a regular, predetermined time interval that is no longer than the carbon service life established for the carbon adsorption system. The provisions of this paragraph (d)(4)(i) do not apply to a nonregenerable carbon adsorption system (e.g., a carbon canister) for which the carbon canister or the carbon in the control device is replaced on a regular basis according to the requirements in paragraph (d)(4)(iii) of this section. [Rule 19.304 and 40 C.F.R. § 63.693(d)(4)(i)]
 - ii. The spent carbon removed from the carbon adsorption system must be either regenerated, reactivated, or burned in one of the units specified in paragraphs (d)(4)(ii)(A) through (d)(4)(ii)(G) of this section. [Rule 19.304 and 40 C.F.R. § 63.693(d)(4)(ii)]
 1. Regenerated or reactivated in a thermal treatment unit for which the owner or operator has been issued a final permit under 40 C.F.R. part 270 that implements the requirements of 40 C.F.R. part 264, subpart X. [Rule 19.304 and 40 C.F.R. § 63.693(d)(4)(ii)(A)]
 2. Regenerated or reactivated in a thermal treatment unit equipped with and operating air emission controls in accordance with this section. [Rule 19.304 and 40 C.F.R. § 63.693(d)(4)(ii)(B)]
 3. Regenerated or reactivated in a thermal treatment unit equipped with and operating organic air emission controls in accordance with a national emission standard for hazardous air pollutants under another subpart in 40 C.F.R. part 63 or 40 C.F.R. part 61. [Rule 19.304 and 40 C.F.R. § 63.693(d)(4)(ii)(C)]

4. Burned in a hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 C.F.R. part 270 that implements the requirements of 40 C.F.R. part 264, subpart O. [Rule 19.304 and 40 C.F.R. § 63.693(d)(4)(ii)(D)]
 5. Burned in a hazardous waste incinerator for which the owner or operator has designed and operates the incinerator in accordance with the interim status requirements of 40 C.F.R. part 265, subpart O. [Rule 19.304 and 40 C.F.R. § 63.693(d)(4)(ii)(E)]
 6. Burned in a boiler or industrial furnace for which the owner or operator has been issued a final permit under 40 C.F.R. part 270 that implements the requirements of 40 C.F.R. part 266, subpart H. [Rule 19.304 and 40 C.F.R. § 63.693(d)(4)(ii)(F)]
 7. Burned in a boiler or industrial furnace for which the owner or operator has designed and operates the unit in accordance with the interim status requirements of 40 C.F.R. part 266, subpart H. [Rule 19.304 and 40 C.F.R. § 63.693(d)(4)(ii)(G)]
- iii. As an alternative to meeting the requirements in paragraphs (d)(3) and (d)(4)(i) of this section, an owner or operator of a nonregenerable carbon adsorption system may choose to replace on a regular basis the carbon canister or the carbon in the control device using the procedures in either paragraph (d)(4)(iii)(A) or (d)(4)(iii)(B) of this section. For the purpose of complying with this paragraph (d)(4)(iii), a nonregenerable carbon adsorption system means a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device, such as a carbon canister. The spent carbon removed from the nonregenerable carbon adsorption system must be managed according to the requirements in paragraph (d)(4)(ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.693(d)(4)(iii)]
1. Monitor the concentration level of the organic compounds in the exhaust vent from the carbon adsorption system on a regular schedule, and when carbon breakthrough is indicated, immediately replace either the existing carbon canister with a new carbon canister or replace the existing carbon in the control device with fresh carbon. Measurement of the concentration level of the organic compounds in the exhaust vent stream must be made with a detection instrument that is appropriate for the composition of organic constituents in the vent stream and is routinely calibrated to measure the organic concentration level expected to occur at breakthrough. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of paragraph (d)(2)(ii)(B) of this section, whichever is longer. [Rule 19.304 and 40 C.F.R. § 63.693(d)(4)(iii)(A)]

- WDF-93. Vapor incinerator control device requirements. [Rule 19.304 and 40 C.F.R. § 63.693(f)]
- a. The vapor incinerator must achieve the performance specifications in either paragraph (f)(1)(i), (f)(1)(ii), or (f)(1)(iii) of §63.693. [Rule 19.304 and 40 C.F.R. § 63.693(f)(1)]
 - i. Maintain the conditions in the vapor incinerator combustion chamber at a residence time of 0.5 seconds or longer and at a temperature of 760°C or higher. [Rule 19.304 and 40 C.F.R. § 63.693(f)(1)(iii)]
 - b. The owner or operator must demonstrate that the vapor incinerator achieves the performance requirements in paragraph (f)(1) of this section by conducting either a performance test as specified in paragraph (f)(2)(i) of this section or a design analysis as specified in paragraph (f)(2)(ii) of this section, except as provided for in paragraph (f)(2)(iii) of this section. [Rule 19.304 and 40 C.F.R. § 63.693(f)(2)]
 - i. An owner or operator choosing to use a design analysis to demonstrate compliance must include as part of this design analysis the information specified in either paragraph (f)(2)(ii)(A) or (f)(2)(ii)(B) of this section as applicable to the vapor incinerator design. [Rule 19.304 and 40 C.F.R. § 63.693(f)(2)(ii)]
 1. For a thermal vapor incinerator, the design analysis shall address the vent stream composition, constituent concentrations, and flow rate and shall establish the design minimum and average temperatures in the combustion chamber and the combustion chamber residence time. [Rule 19.304 and 40 C.F.R. § 63.693(f)(2)(ii)(A)]
 - c. The owner or operator must monitor the operation of the vapor incinerator in accordance with the requirements of §63.695(e) of this subpart using one of the continuous monitoring systems specified in paragraphs (f)(3)(i) through (f)(3)(iv) of this section as applicable to the type of vapor incinerator used. [Rule 19.304 and 40 C.F.R. § 63.693(f)(3)]
 - i. For a thermal vapor incinerator, a continuous parameter monitoring system to measure and record the daily average temperature of the exhaust gases from the control device. The accuracy of the temperature monitoring device must be ± 1 percent of the temperature being measured, expressed in degrees Celsius of ± 0.5 °C, whichever is greater. [Rule 19.304 and 40 C.F.R. § 63.693(f)(3)(i)]
- WDF-94. Testing methods and procedures to determine average VOHAP concentration of an off-site material stream at the point-of-delivery. [Rule 19.304 and 40 C.F.R. § 63.694(b)]
- a. Knowledge of the off-site material to determine VOHAP concentration [Rule 19.304 and 40 C.F.R. § 63.694(b)(3)]
 - i. Documentation shall be prepared that presents the information used as the basis for the owner's or operator's knowledge of the off-site material stream's average VOHAP concentration. Examples of information that may be used as the basis for knowledge include: material balances for the

source or process generating the off-site material stream; species-specific chemical test data for the off-site material stream from previous testing that are still applicable to the current off-site material stream; previous test data for other locations managing the same type of off-site material stream; or other knowledge based on information in documents such as manifests, shipping papers, or waste certification notices. [Rule 19.304 and 40 C.F.R. § 63.694(b)(3)(i)]

- ii. If test data are used as the basis for knowledge, then the owner or operator shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VOHAP concentration. For example, an owner or operator may use HAP concentration test data for the off-site material stream that are validated in accordance with Method 301 in 40 C.F.R. part 63, appendix A of 40 C.F.R. Part 63 as the basis for knowledge of the off-site material. [Rule 19.304 and 40 C.F.R. § 63.694(b)(3)(ii)]
- iii. An owner or operator using species-specific chemical concentration test data as the basis for knowledge of the off-site material may adjust the test data to the corresponding average VOHAP concentration value which would be obtained had the off-site material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the off-site material is multiplied by the appropriate species-specific adjustment factor (fm305) listed in Table 1 of 40 C.F.R. Part 63, Subpart DD. [Rule 19.304 and 40 C.F.R. § 63.694(b)(3)(iii)]
- iv. In the event that the Administrator and the owner or operator disagree on a determination of the average VOHAP concentration for an off-site material stream using knowledge, then the results from a determination of VOHAP concentration using direct measurement as specified in paragraph (b)(2) of §63.694 shall be used to establish compliance with the applicable requirements of 40 C.F.R. Part 63, Subpart DD. The Administrator may perform or require that the owner or operator perform this determination using direct measurement. [Rule 19.304 and 40 C.F.R. § 63.694(b)(3)(iv)]

WDF-95. The owner or operator must install, calibrate, maintain, and operate all monitoring system components according to §§63.8, 63.684(e), 63.693(d)(3), (e)(3), (f)(3), (g)(3), and (h)(3), and paragraph (a)(5) of this section and perform the inspection and monitoring procedures specified in paragraphs (a)(1) through (4) of this section. [Rule 19.304 and 40 C.F.R. § 63.695(a)]

- a. To inspect tank fixed roofs and floating roofs for compliance with the Tank Level 2 controls standards specified in §63.685 of this subpart, the inspection procedures are specified in paragraph (b) of this section. [Rule 19.304 and 40 C.F.R. § 63.695(a)(1)]
- b. To inspect and monitor closed-vent systems for compliance with the standards specified in §63.693 of this subpart, the inspection and monitoring procedures are

specified in paragraph (c) of this section. [Rule 19.304 and 40 C.F.R. § 63.695(a)(2)]

- c. To inspect and monitor transfer system covers for compliance with the standards specified in §63.689(c)(1) of this subpart, the inspection and monitoring procedures are specified in paragraph (d) of this section. [Rule 19.304 and 40 C.F.R. § 63.695(a)(3)]
- d. 63.695(a)(5)
 - i. Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator must operate the continuous monitoring system at all times the affected source is operating. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator is required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. [Rule 19.304 and 40 C.F.R. § 63.695(a)(5)(i)]
 - ii. The owner or operator may not use data recorded during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. The owner or operator must use all the data collected during all other required data collection periods in assessing the operation of the control device and associated control system. The owner or operator must report any periods for which the monitoring system failed to collect required data. [Rule 19.304 and 40 C.F.R. § 63.695(a)(5)(ii)]

WDF-96. Tank Level 2 fixed roof and floating roof inspection requirements. [Rule 19.304 and 40 C.F.R. § 63.695(b)]

- a. Owners and operators that use a tank equipped with a fixed roof in accordance with the provisions of §63.685(g) of this subpart shall meet the following requirements: [Rule 19.304 and 40 C.F.R. § 63.695(b)(3)]
 - i. The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case when a tank is buried partially or entirely underground, inspection is required only for those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the

- cover (e.g., fill ports, access hatches, gauge wells, etc.) and can be opened to the atmosphere. [Rule 19.304 and 40 C.F.R. § 63.695(b)(3)(i)]
- ii. The owner or operator must perform an initial inspection following installation of the fixed roof. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (f) of this section. [Rule 19.304 and 40 C.F.R. § 63.695(b)(3)(ii)]
 - iii. In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section. [Rule 19.304 and 40 C.F.R. § 63.695(b)(3)(iii)]
 - iv. The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in §63.696(e) of this subpart. [Rule 19.304 and 40 C.F.R. § 63.695(b)(3)(iv)]
- b. The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of paragraph (b)(1), (b)(2), or (b)(3) of this section in the following manner: [Rule 19.304 and 40 C.F.R. § 63.695(b)(4)]
- i. The owner or operator shall within 45 calendar days of detecting the defect either repair the defect or empty the tank and remove it from service. If within this 45-day period the defect cannot be repaired or the tank cannot be removed from service without disrupting operations at the plant site, the owner or operator is allowed two 30-day extensions. In cases when an owner or operator elects to use a 30-day extension, the owner or operator shall prepare and maintain documentation describing the defect, explaining why alternative storage capacity is not available, and specify a schedule of actions that will ensure that the control equipment will be repaired or the tank emptied as soon as possible. [Rule 19.304 and 40 C.F.R. § 63.695(b)(4)(i)]
 - ii. When a defect is detected during an inspection of a tank that has been emptied and degassed, the owner or operator shall repair the defect before refilling the tank. [Rule 19.304 and 40 C.F.R. § 63.695(b)(4)(ii)]

WDF-97. Owners and operators that use a closed-vent system in accordance with the provisions of §63.693 of this subpart shall meet the following inspection and monitoring requirements: [Rule 19.304 and 40 C.F.R. § 63.695(c)]

- a. Each closed-vent system that is used to comply with §63.693(c)(1)(i) of this subpart shall be inspected and monitored in accordance with the following requirements: [Rule 19.304 and 40 C.F.R. § 63.695(c)(1)]
 - i. At initial startup, the owner or operator shall monitor the closed-vent system components and connections using the procedures specified in §63.694(k) of this subpart to demonstrate that the closed-vent system operates with no detectable organic emissions. [Rule 19.304 and 40 C.F.R. § 63.695(c)(1)(i)]

- ii. After initial startup, the owner or operator shall inspect and monitor the closed-vent system as follows: [Rule 19.304 and 40 C.F.R. § 63.695(c)(1)(ii)]
 - 1. Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air emissions. The owner or operator shall monitor a component or connection using the procedures specified in §63.694(k) of this subpart to demonstrate that it operates with no detectable organic emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted). [Rule 19.304 and 40 C.F.R. § 63.695(c)(1)(ii)(A)]
 - 2. Closed-vent system components or connections other than those specified in paragraph (c)(1)(ii)(A) of this section, shall be monitored at least once per year using the procedures specified in §63.694(k) of this subpart to demonstrate that components or connections operate with no detectable organic emissions. [Rule 19.304 and 40 C.F.R. § 63.695(c)(1)(ii)(B)]
 - 3. The continuous monitoring system required by §63.693(b)(4)(i) shall monitor and record either an instantaneous data value at least once every 15 minutes or an average value for intervals of 15 minutes or less. [Rule 19.304 and 40 C.F.R. § 63.695(c)(1)(ii)(C)]
 - 4. The owner or operator shall visually inspect the seal or closure mechanism required by §63.693(c)(2)(ii) at least once every month to verify that the bypass mechanism is maintained in the closed position. [Rule 19.304 and 40 C.F.R. § 63.695(c)(1)(ii)(D)]
- iii. In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of paragraph (c)(3) of this section. [Rule 19.304 and 40 C.F.R. § 63.695(c)(1)(iii)]
- iv. The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in §63.696 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.695(c)(1)(iv)]
- b. The owner or operator shall repair all detected defects as follows: [Rule 19.304 and 40 C.F.R. § 63.695(c)(3)]
 - i. The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection. [Rule 19.304 and 40 C.F.R. § 63.695(c)(3)(i)]
 - ii. Repair of a defect may be delayed beyond 45 calendar days if either of the conditions specified in paragraph (c)(3)(ii)(A) or (c)(3)(ii)(B) occurs. In this case, the owner or operator must repair the defect the next time the process or unit that vents to the closed-vent system is shutdown. Repair of

the defect must be completed before the process or unit resumes operation.
[Rule 19.304 and 40 C.F.R. § 63.695(c)(3)(ii)]

1. Completion of the repair is technically infeasible without the shutdown of the process or unit that vents to the closed-vent system. [Rule 19.304 and 40 C.F.R. § 63.695(c)(3)(ii)(A)]
2. The owner or operator determines that the air emissions resulting from the repair of the defect within the specified period would be greater than the fugitive emissions likely to result by delaying the repair until the next time the process or unit that vents to the closed-vent system is shutdown. [Rule 19.304 and 40 C.F.R. § 63.695(c)(3)(ii)(B)]
- iii. The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in §63.696 of this subpart. [Rule 19.304 and 40 C.F.R. 63.695(c)(3)(iii)]

WDF-98. Owners and operators that use a transfer system equipped with a cover in accordance with the provisions of §63.689(c)(1) of this subpart shall meet the following inspection requirements: [Rule 19.304 and 40 C.F.R. § 63.695(d)]

- a. The cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover sections or between the cover and its mounting; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case when a transfer system is buried partially or entirely underground, inspection is required only for those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (e.g., access hatches, etc.) and can be opened to the atmosphere. [Rule 19.304 and 40 C.F.R. § 63.695(d)(1)]
- b. The owner or operator must perform an initial inspection following installation of the cover. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (f) of this section. [Rule 19.304 and 40 C.F.R. § 63.695(d)(2)]
- c. In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (d)(5) of this section. [Rule 19.304 and 40 C.F.R. § 63.695(d)(3)]
- d. The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in §63.696 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.695(d)(4)]
- e. The owner or operator shall repair all detected defects as follows: [Rule 19.304 and 40 C.F.R. § 63.695(d)(5)]
 - i. The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (d)(5)(ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.695(d)(5)(i)]

- ii. Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the transfer system and no alternative transfer system is available at the site to accept the material normally handled by the system. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the material handled by the transfer system stops operation. Repair of the defect must be completed before the process or unit resumes operation. [Rule 19.304 and 40 C.F.R. § 63.695(d)(5)(ii)]
- iii. The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in §63.696 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.695(d)(5)(iii)]

- WDF-99. Control device monitoring requirements. For each control device required under §63.693 to be monitored in accordance with the provisions of this paragraph (e), the owner or operator must ensure that each control device operates properly by monitoring the control device in accordance with the requirements specified in paragraphs (e)(1) through (5) of this section. [Rule 19.304 and 40 C.F.R. § 63.695(e)]
- a. A continuous parameter monitoring system must be used to measure the operating parameter or parameters specified for the control device in §63.693(d) through §63.693(g) of this subpart as applicable to the type and design of the control device. The continuous parameter monitoring system must meet the following specifications and requirements: [Rule 19.304 and 40 C.F.R. § 63.695(e)(1)]
 - i. The continuous parameter monitoring system must measure either an instantaneous value at least once every 15 minutes or an average value for intervals of 15 minutes or less and continuously record either: [Rule 19.304 and 40 C.F.R. § 63.695(e)(1)(i)]
 - 1. Each measured data value; or [Rule 19.304 and 40 C.F.R. § 63.695(e)(1)(i)(A)]
 - 2. Each block average value for each 1-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values. [Rule 19.304 and 40 C.F.R. § 63.695(e)(1)(i)(B)]
 - ii. The monitoring system must be installed, calibrated, operated, and maintained in accordance with the manufacturer's specifications or other written procedures that provide reasonable assurance that the monitoring equipment is operating properly. [Rule 19.304 and 40 C.F.R. § 63.695(e)(1)(ii)]
 - b. Using the data recorded by the monitoring system, the owner or operator must calculate the daily average value for each monitored operating parameter for each operating day. If operation of the control device is continuous, the operating day is a 24-hour period. If control device operation is not continuous, the operating day is the total number of hours of control device operation per 24-

hour. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average. [Rule 19.304 and 40 C.F.R. § 63.695(e)(2)]

- c. For each monitored operating parameter, the owner or operator must establish a minimum operating parameter value or a maximum operating parameter value, as appropriate, to define the range of conditions at which the control device must be operated to continuously achieve the applicable performance requirements specified in §63.693(b)(2) of this subpart. Each minimum or maximum operating parameter value must be established in accordance with the requirements in paragraphs (e)(3)(i) and (e)(3)(ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.695(e)(3)]
 - i. If the owner or operator uses a control device design analysis to demonstrate control device performance, then the minimum or maximum operating parameter value must be established based on the control device design analysis and supplemented, as necessary, by the control device manufacturer recommendations or other applicable information. [Rule 19.304 and 40 C.F.R. § 63.695(e)(3)(ii)]
- d. An excursion for a given control device is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (e)(4)(i) through (e)(4)(iii) of Subpart DD being met. When multiple operating parameters are monitored for the same control device and during the same operating day more than one of these operating parameters meets an excursion criterion specified in paragraphs (e)(4)(i) through (e)(4)(iii) of Subpart DD, then a single excursion is determined to have occurred for the control device for that operating day. [Rule 19.304 and 40 C.F.R. § 63.695(e)(4)]
 - i. An excursion occurs when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit) established for the operating parameter in accordance with the requirements of paragraph (e)(3) of Subpart DD. [Rule 19.304 and 40 C.F.R. § 63.695(e)(4)(i)]
 - ii. An excursion occurs when the period of control device operation is 4 hours or greater in an operating day and the monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours. Monitoring data are insufficient to constitute a valid hour of data if measured values are unavailable for any of the 15-minute periods within the hour. [Rule 19.304 and 40 C.F.R. § 63.695(e)(4)(ii)]
 - iii. An excursion occurs when the period of control device operation is less than 4 hours in an operating day and more than 1 of the hours during the period does not constitute a valid hour of data due to insufficient monitoring data. Monitoring data are insufficient to constitute a valid hour of data if measured values are unavailable for any of the 15-minute periods within the hour. [Rule 19.304 and 40 C.F.R. § 63.695(e)(4)(iii)]
- e. For each deviation, except when the deviation occurs during periods of non-operation of the unit or the process that is vented to the control device (resulting

in cessation of HAP emissions to which the monitoring applies), the owner or operator shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of this standard. [Rule 19.304 and 40 C.F.R. § 63.695(e)(5)]

WDF-100. The owner or operator subject to 40 C.F.R. Part 63, Subpart DD shall comply with the recordkeeping requirements in §63.10 under 40 C.F.R. 63 subpart A—General Provisions that are applicable to 40 C.F.R. Part 63, Subpart DD as specified in Table 2 of 40 C.F.R. Part 63, Subpart DD. [Rule 19.304 and 40 C.F.R. § 63.696(a)]

WDF-101. The owner or operator of a control device subject to this subpart shall maintain the records in accordance with the requirements of 40 C.F.R. 63.10 of this part. [Rule 19.304 and 40 C.F.R. § 63.696(b)]

WDF-102. Each owner or operator using a fixed roof to comply with the tank control requirements specified in §63.685(g) of this subpart shall prepare and maintain the following records: [Rule 19.304 and 40 C.F.R. § 63.696(e)]

- a. A record for each inspection required by §63.695(b) of this subpart, as applicable to the tank, that includes the following information: a tank identification number (or other unique identification description as selected by the owner or operator) and the date of inspection. [Rule 19.304 and 40 C.F.R. § 63.696(e)(1)]
- b. The owner or operator shall record for each defect detected during inspections required by §63.695(b) of this subpart the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of §63.695(b)(4) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected. [Rule 19.304 and 40 C.F.R. § 63.696(e)(2)]

WDF-103. Each owner or operator using an enclosure to comply with the tank control requirements specified in §63.685(i) of this subpart shall prepare and maintain records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 C.F.R. 52.741, appendix B. [Rule 19.304 and 40 C.F.R. § 63.696(f)]

WDF-104. An owner or operator shall record, on a semiannual basis, the information specified in paragraphs (g)(1) and (g)(2) of this section for those planned routine maintenance operations that would require the control device not to meet the requirements of §63.693(d) through (h) of this subpart, as applicable. [Rule 19.304 and 40 C.F.R. § 63.696(g)]

- a. A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description shall

- include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods. [Rule 19.304 and 40 C.F.R. § 63.696(g)(1)]
- b. A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description shall include the type of maintenance performed and the total number of hours during these 6 months that the control device did not meet the requirement of §63.693 (d) through (h) of this subpart, as applicable, due to planned routine maintenance. [Rule 19.304 and 40 C.F.R. § 63.696(g)(2)]

WDF-105. An owner or operator shall record the malfunction information specified in paragraphs (h)(1) through (3) of this section. [Rule 19.304 and 40 C.F.R. § 63.696(h)]

- a. In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure, record the date, time and duration of the failure. [Rule 19.304 and 40 C.F.R. § 63.696(h)(1)]
- b. For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions. [Rule 19.304 and 40 C.F.R. § 63.696(h)(2)]
- c. Record actions taken to minimize emissions in accordance with §63.683(e) and any corrective actions taken to return the affected unit to its normal or usual manner of operation. [Rule 19.304 and 40 C.F.R. § 63.696(h)(3)]

WDF-106. 63.696(j)

- a. For each closed vent system that includes bypass devices that could divert a stream away from the control device and into the atmosphere, as specified in §63.693(c)(2), and each open-ended valve or line in an emergency shutdown system which is designed to open automatically in the event of a process upset, as specified in §63.167(d) or 40 C.F.R. 61.242-6(d), keep records of each release to the atmosphere, including the information specified in paragraphs (j)(3) through (9) of this section. [Rule 19.304 and 40 C.F.R. § 63.696(j)(2)]
- b. The source, nature, and cause of the release. [Rule 19.304 and 40 C.F.R. § 63.696(j)(3)]
- c. The date, time, and duration of the release. [Rule 19.304 and 40 C.F.R. § 63.696(j)(4)]
- d. An estimate of the quantity of HAP listed in Table 1 of this subpart emitted during the release and the calculations used for determining this quantity. [Rule 19.304 and 40 C.F.R. § 63.696(j)(5)]
- e. The actions taken to prevent this release. [Rule 19.304 and 40 C.F.R. § 63.696(j)(6)]
- f. The measures adopted to prevent future such release. [Rule 19.304 and 40 C.F.R. § 63.696(j)(7)]
- g. Hourly records of whether the bypass flow indicator specified under §63.693(c)(2) was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent

stream is diverted from the control device or the flow indicator is not operating. [Rule 19.304 and 40 C.F.R. § 63.696(j)(8)]

- h. Where a seal mechanism is used to comply with §63.693(c)(2), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken. [Rule 19.304 and 40 C.F.R. § 63.696(j)(9)]

WDF-107. Each owner or operator of an affected source subject to this subpart must comply with the notification requirements specified in paragraph (a)(1) of this section and the reporting requirements specified in paragraphs (a)(2) and (3) of this section. [Rule 19.304 and 40 C.F.R. § 63.697(a)]

- a. The owner or operator of an affected source must submit notices to the Administrator in accordance with the applicable notification requirements in 40 C.F.R. 63.9 as specified in Table 2 of this subpart. For the purpose of this subpart, an owner or operator subject to the initial notification requirements under 40 C.F.R. 63.9(b)(2) must submit the required notification on or before October 19, 1999. [Rule 19.304 and 40 C.F.R. § 63.697(a)](1)
- b. The owner or operator of an affected source must submit reports to the Administrator in accordance with the applicable reporting requirements in 40 C.F.R. 63.10 as specified in Table 2 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.697(a)(2)]
- c. Electronic reporting. Within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart, the owner or operator must submit the results of the performance test according to the manner specified by either paragraph (a)(3)(i) or (ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.697(a)(3)]

WDF-108. The owner or operator of a control device used to meet the requirements of §63.693 of this subpart shall submit the following notifications and reports to the Administrator: [Rule 19.304 and 40 C.F.R. § 63.697(b)]

- a. A Notification of Performance Tests specified in §63.7 and §63.9(g) of this part, [Rule 19.304 and 40 C.F.R. § 63.697(b)(1)]
- b. Performance test reports specified in §63.10(d)(2) of this part, and[§63.697(b)(2)]
- c. Reports of malfunctions. If a source fails to meet an applicable standard, report such events in the Periodic Report. Report the number of failures to meet an applicable standard. For each instance, report the date, time and duration of each failure. For each failure the report must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions. [Rule 19.304 and 40 C.F.R. § 63.697(b)(3)]
- d. A summary report specified in §63.10(e)(3) shall be submitted on a semiannual basis (i.e., once every 6-month period). The summary report must include a

description of all deviations as defined in §§63.683(f) and 63.695(e) that have occurred during the 6-month reporting period. For each deviation caused when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit), the report must include the daily average values of the monitored parameter, the applicable operating parameter limit, and the date and duration of the period that the deviation occurred. For each deviation caused by lack of monitoring data, the report must include the date and duration of period when the monitoring data were not collected and the reason why the data were not collected. [Rule 19.304 and 40 C.F.R. § 63.697(b)(4)]

- e. For pressure relief devices in off-site material service subject to §63.691(c), Periodic Reports must include the information specified in paragraphs (b)(5)(i) through (iii) of this section. [Rule 19.304 and 40 C.F.R. § 63.697(b)(5)]
 - i. For pressure relief devices in off-site material service subject to §63.691(c), report the results of all monitoring conducted within the reporting period. [Rule 19.304 and 40 C.F.R. § 63.697(b)(5)(i)]
 - ii. For pressure relief devices in gas/vapor service subject to §63.691(c)(2)(i), report any instrument reading of 500 ppm above background or greater, if detected more than 5 days after the pressure release. [Rule 19.304 and 40 C.F.R. § 63.697(b)(5)(ii)]
 - iii. For pressure relief devices in off-site material service subject to §63.691(c)(3), report each pressure release to the atmosphere, including the following information: [Rule 19.304 and 40 C.F.R. § 63.697(b)(5)(iii)]
 - 1. The source, nature, and cause of the pressure release. [Rule 19.304 and 40 C.F.R. § 63.697(b)(5)(iii)(A)]
 - 2. The date, time, and duration of the pressure release. [Rule 19.304 and 40 C.F.R. § 63.697(b)(5)(iii)(B)]
 - 3. An estimate of the quantity of HAP listed in Table 1 of this subpart emitted during the pressure release and the method used for determining this quantity. [Rule 19.304 and 40 C.F.R. § 63.697(b)(5)(iii)(C)]
 - 4. The actions taken to prevent this pressure release. [Rule 19.304 and 40 C.F.R. § 63.697(b)(5)(iii)(D)]
 - 5. The measures adopted to prevent future such pressure releases. [Rule 19.304 and 40 C.F.R. § 63.697(b)(5)(iii)(E)]
- f. Pressure tank closure device or bypass deviation report. The owner or operator must submit to the Administrator the information specified in paragraph (b)(6)(iv) of this section when any of the conditions in paragraphs (b)(6)(i) through (iii) of this section are met. [Rule 19.304 and 40 C.F.R. § 63.697(b)(6)]
 - i. Any closed vent system that includes bypass devices that could divert a vent a stream away from the control device and into the atmosphere, as specified in §63.693(c)(2), has released directly to the atmosphere. [Rule 19.304 and 40 C.F.R. § 63.697(b)(6)(ii)]

- ii. The pressure tank closure device or bypass deviation report must include the information specified in paragraphs (b)(6)(iv)(A) through (E) of this section. [Rule 19.304 and 40 C.F.R. § 63.697(b)(6)(iv)]
 - 1. The source, nature and cause of the release. [Rule 19.304 and 40 C.F.R. § 63.697(b)(6)(iv)(A)]
 - 2. The date, time and duration of the discharge. [Rule 19.304 and 40 C.F.R. § 63.697(b)(6)(iv)(B)]
 - 3. An estimate of the quantity of HAP listed in Table 1 of this subpart emitted during the release and the method used for determining this quantity. [Rule 19.304 and 40 C.F.R. § 63.697(b)(6)(iv)(C)]
 - 4. The actions taken to prevent this release. [Rule 19.304 and 40 C.F.R. § 63.697(b)(6)(iv)(D)]
 - 5. The measures adopted to prevent future such releases. [Rule 19.304 and 40 C.F.R. § 63.697(b)(6)(iv)(E)]

WDF-109. The provisions of 40 C.F.R. part 63, subpart A—General Provisions that apply and those that do not apply to this subpart are specified in Table 2 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.680(f)]

40 C.F.R. § 63 Subpart PP

WDF-110. Containers handling material regulated by 40 C.F.R. 63, Subpart DD are considered affected sources under 40 C.F.R. Part 63, Subpart PP and are subject, but not limited, to the requirements found in the following conditions. [Rule 19.304 and 40 C.F.R. Part 63, Subpart PP]

WDF-111. This section applies to owners and operators subject to this subpart and required to control air emissions from containers using Container Level 1 controls. [Rule 19.304 and 40 C.F.R. § 63.922(a)]

WDF-112. A container using Container Level 1 controls is one of the following: [Rule 19.304 and 40 C.F.R. § 63.922(b)]

- a. A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in paragraph (f) of this section. [Rule 19.304 and 40 C.F.R. § 63.922(b)(1)]
- b. A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum, a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a bulk cargo container equipped with a screw-type cap). [Rule 19.304 and 40 C.F.R. § 63.922(b)(2)]
- c. An open-top container in which an organic vapor-suppressing barrier is placed on or over the regulated-material in the container such that no regulated-material is

exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam. [Rule 19.304 and 40 C.F.R. § 63.922(b)(3)]

WDF-113. A container used to meet the requirements of either paragraph (b)(2) or (b)(3) of this section shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the regulated-material to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability, the effects of contact with the material or its vapor managed in the container; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for container on which the cover is installed. [Rule 19.304 and 40 C.F.R. § 63.922(c)]

WDF-114. Whenever a regulated-material is in a container using Container Level 1 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows: [Rule 19.304 and 40 C.F.R. § 63.922(d)]

- a. Opening of a closure device or cover is allowed for the purpose of adding material to the container as follows: [Rule 19.304 and 40 C.F.R. § 63.922(d)(1)]
 - i. In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation. [Rule 19.304 and 40 C.F.R. § 63.922(d)(1)(i)]
 - ii. In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either: the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaves the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first. [Rule 19.304 and 40 C.F.R. § 63.922(d)(1)(ii)]
- b. Opening of a closure device or cover is allowed for the purpose of removing material from the container as follows: [Rule 19.304 and 40 C.F.R. § 63.922(d)(2)]
 - i. For the purpose of meeting the requirements of this section, an empty container as defined in §63.921 of this subpart may be open to the atmosphere at any time (e.g., covers and closure devices are not required to be secured in the closed position on an empty container). [Rule 19.304 and 40 C.F.R. § 63.922(d)(2)(i)]

- ii. In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in §63.921 of this subpart, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes, or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first. [Rule 19.304 and 40 C.F.R. § 63.922(d)(2)(ii)]
- c. Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of regulated-material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container. [Rule 19.304 and 40 C.F.R. § 63.922(d)(3)]
- d. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the container internal pressure is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations. [Rule 19.304 and 40 C.F.R. § 63.922(d)(4)]
- e. Opening of a safety device, as defined in §63.921 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition. [Rule 19.304 and 40 C.F.R. § 63.922(d)(5)]

WDF-115. The owner or operator shall inspect containers using Container Level 1 controls in accordance with the procedures specified in §63.926(a) of this subpart. [Rule 19.304 and 40 C.F.R. § 63.922(e)]

WDF-116. For the purpose of compliance with paragraph (b)(1) of this section, containers shall be used that meet the applicable U.S. DOT regulations on packaging hazardous materials for transportation as follows: [Rule 19.304 and 40 C.F.R. § 63.922(f)]

- a. The container meets the applicable requirements specified in 49 C.F.R. part 178—Specifications for Packagings or 49 C.F.R. part 179—Specifications for Tank Cars. [Rule 19.304 and 40 C.F.R. § 63.922(f)(1)]
- b. Regulated-material is managed in the container in accordance with the applicable requirements specified in 49 C.F.R. part 107 subpart B—Exemptions; 49 C.F.R. part 172—Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 C.F.R. part 173—Shippers—General Requirements for Shipments and Packaging; and 49 C.F.R. part 180—Continuing Qualification and Maintenance of Packagings. [Rule 19.304 and 40 C.F.R. § 63.922(f)(2)]
- c. For the purpose of complying with this subpart, no exceptions to the 49 C.F.R. part 178 or part 179 regulations are allowed except as provided for in paragraph (f)(4) of this section. [Rule 19.304 and 40 C.F.R. § 63.922(f)(3)]
- d. For a lab pack that is managed in accordance with the requirements of 49 C.F.R. part 178 for the purpose of complying with this subpart, an owner or operator may comply with the exceptions for those packagings specified in 49 C.F.R. 173.12(b). [Rule 19.304 and 40 C.F.R. § 63.922(f)(4)]

WDF-117. This section applies to owners and operators subject to this subpart and required to control air emissions from containers using Container Level 2 controls. [Rule 19.304 and 40 C.F.R. § 63.923(a)]

WDF-118. A container using Container Level 2 controls is one of the following: [Rule 19.304 and 40 C.F.R. § 63.923(b)]

- a. A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in paragraph (f) of this section. [Rule 19.304 and 40 C.F.R. § 63.923(b)(1)]
- b. A container that has been demonstrated to operate with no detectable organic emissions as defined in §63.921 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.923(b)(2)]
- c. A container that has been demonstrated within the preceding 12 months to be vapor-tight by using Method 27 in appendix A of 40 C.F.R. part 60 in accordance with the procedure specified in §63.925(b) of this subpart. [Rule 19.304 and 40 C.F.R. § 63.923(b)(3)]

WDF-119. Transfer of regulated-material in to or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the regulated-material to the atmosphere, to the extent practical, considering the physical properties of the regulated-material and good engineering and safety practices for handling flammable, ignitable, explosive, or other hazardous materials. Examples of container loading procedures that meet the requirements of this paragraph include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the regulated-

material is filled, with subsequent purging of the transfer line before removing it from the container opening. [Rule 19.304 and 40 C.F.R. § 63.923(c)]

WDF-120. Whenever a regulated-material is in a container using Container Level 2 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows: [Rule 19.304 and 40 C.F.R. § 63.923(d)]

- a. Opening of a closure device or cover is allowed for the purpose of adding material to the container as follows: [Rule 19.304 and 40 C.F.R. § 63.923(d)(1)]
 - i. In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation. [Rule 19.304 and 40 C.F.R. § 63.923(d)(1)(i)]
 - ii. In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level, the completion of a batch loading after which no additional material will be added to the container within 15 minutes, the person performing the loading operation leaves the immediate vicinity of the container, or the shutdown of the process generating the material being added to the container, whichever condition occurs first. [Rule 19.304 and 40 C.F.R. § 63.923(d)(1)(ii)]
- b. Opening of a closure device or cover is allowed for the purpose of removing material from the container as follows: [Rule 19.304 and 40 C.F.R. § 63.923(d)(2)]
 - i. For the purpose of meeting the requirements of this section, an empty container as defined in §63.921 of this subpart may be open to the atmosphere at any time (e.g., covers and closure devices are not required to be secured in the closed position on an empty container). [Rule 19.304 and 40 C.F.R. § 63.923(d)(2)(i)]
 - ii. In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in §63.921 of this subpart, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first. [Rule 19.304 and 40 C.F.R. § 63.923(d)(2)(ii)]
- c. Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of regulated-material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a

worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container. [Rule 19.304 and 40 C.F.R. § 63.923(d)(3)]

- d. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the container internal pressure is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations. [Rule 19.304 and 40 C.F.R. § 63.923(d)(4)]
- e. Opening of a safety device, as defined in §63.921 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition. [Rule 19.304 and 40 C.F.R. § 63.923(d)(5)]

WDF-121. The owner or operator shall inspect containers using Container Level 2 controls in accordance with the procedures specified in §63.926(a) of this subpart. [Rule 19.304 and 40 C.F.R. § 63.923(e)]

WDF-122. For the purpose of compliance with paragraph (b)(1) of this section, containers shall be used that meet the applicable U.S. DOT regulations on packaging hazardous materials for transportation as follows: [Rule 19.304 and 40 C.F.R. § 63.923(f)]

- a. The container meets the applicable requirements specified in 49 C.F.R. part 178—Specifications for Packagings or 49 C.F.R. part 179—Specifications for Tank Cars. [Rule 19.304 and 40 C.F.R. § 63.923(f)(1)]
- b. Regulated-material is managed in the container in accordance with the applicable requirements specified in 49 C.F.R. part 107 subpart B—Exemptions; 49 C.F.R. part 172—Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 C.F.R. part 173—Shippers—General Requirements for Shipments and Packaging; and 49 C.F.R. part 180—Continuing Qualification and Maintenance of Packagings. [Rule 19.304 and 40 C.F.R. § 63.923(f)(2)]

WDF-123. This section applies to owners and operators subject to this subpart and required to control air emissions from containers using Container Level 3 controls. [Rule 19.304 and 40 C.F.R. § 63.924(a)]

WDF-124. A container using Container Level 3 controls is one of the following: [Rule 19.304 and 40 C.F.R. § 63.924(b)]

- a. A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of paragraphs (c)(2) of this section. [Rule 19.304 and 40 C.F.R. § 63.924(b)(1)]
- b. A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of paragraphs (c)(1) and (c)(2) of this section. [Rule 19.304 and 40 C.F.R. § 63.924(b)(2)]

WDF-125. The owner or operator shall meet the following requirements as applicable to the type of air emission control equipment selected by the owner or operator: [Rule 19.304 and 40 C.F.R. § 63.924(c)]

- a. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 C.F.R. 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or to direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” initially when the enclosure is first installed and, thereafter, annually. [Rule 19.304 and 40 C.F.R. § 63.924(c)(1)]
- b. The closed-vent system and control device shall be designed and operated in accordance with the requirements of §63.693. [Rule 19.304 and 40 C.F.R. § 63.924(c)(2)]

WDF-126. Safety devices, as defined in §63.921 of this subpart, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with this section. [Rule 19.304 and 40 C.F.R. § 63.924(d)]

WDF-127. Owners and operators of containers using either Container Level 1 or Container Level 2 controls in accordance with the provisions of §63.922 and §63.923 of this subpart, respectively, shall inspect the container and its cover and closure devices as follows: [Rule 19.304 and 40 C.F.R. § 63.926(a)]

- a. In the case when a regulated-material already is in the container at the time the owner or operator first accepts possession of the container at the facility site and the container is not emptied (i.e., does not meet the conditions for an empty container as defined in §63.921 of this subpart) within 24 hours after the container has been accepted at the facility site, the container and its cover and closure

- devices shall be visually inspected by the owner or operator to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. This inspection of the container must be conducted on or before the date that the container is accepted at the facility (i.e., the date that the container becomes subject to the standards under this subpart). For the purpose of this requirement, the date of acceptance is the date of signature of the facility owner or operator on the manifest or shipping papers accompanying the container. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (a)(3) of this section. [Rule 19.304 and 40 C.F.R. § 63.926(a)(1)]
- b. In the case when a container filled or partially filled with regulated-material remains unopened at the facility site for a period of 1 year or more, the container and its cover and closure devices shall be visually inspected by the owner or operator initially and thereafter, at least once every calendar year, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (a)(3) of this section. [Rule 19.304 and 40 C.F.R. § 63.926(a)(2)]
 - c. When a defect is detected for the container, cover, or closure devices, the owner or operator must either empty the regulated-material from the defective container in accordance with paragraph (a)(3)(i) of this section or repair the defective container in accordance with paragraph (a)(3)(ii) of this section. [Rule 19.304 and 40 C.F.R. § 63.926(a)(3)]
 - i. If the owner or operator elects to empty the regulated-material from the defective container, the owner or operator must remove the regulated-material from the defective container to meet the conditions for an empty container (as defined in §63.921 of this subpart) and transfer the removed regulated-material to either a container that meets the applicable standards under this subpart or to a tank, process, or treatment unit that meets the applicable standards under the subpart referencing this subpart. Transfer of the regulated-material must be completed no later than 5 calendar days after detection of the defect. The emptied defective container must be either repaired, destroyed, or used for purposes other than management of regulated-material. [Rule 19.304 and 40 C.F.R. § 63.926(a)(3)(i)]
 - ii. If the owner or operator elects not to empty the regulated-material from the defective container, the owner or operator must repair the defective container. First efforts at repair of the defect must be made no later than 24 hours after detection and repair must be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the regulated-material must be emptied from the container and the container must not be used to manage regulated-material until the defect is repaired. [Rule 19.304 and 40 C.F.R. § 63.926(a)(3)(ii)]

WDF-128. Owners and operators using Container Level 3 controls in accordance with the provisions of §63.924 of this subpart shall inspect and monitor the closed-vent systems and control devices in accordance with the requirements of §63.693 in 40 C.F.R. part 63, Subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations. [Rule 19.304 and 40 C.F.R. § 63.926(b)]

WDF-129. Owners and operators that use Container Level 3 controls in accordance with the provisions of §63.924 of this subpart shall prepare and maintain the following records: [Rule 19.304 and 40 C.F.R. § 63.927(a)]

- a. Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 C.F.R. 52.741, appendix B. [Rule 19.304 and 40 C.F.R. § 63.927(a)(1)]
- b. Records required for the closed-vent system and control device in accordance with the requirements of §63.693 in 40 C.F.R. part 63, Subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations. [Rule 19.304 and 40 C.F.R. § 63.927(a)(2)]

WDF-130. For owners and operators that use Container Level 3 controls in accordance with the provisions of §63.924 of this subpart, the owner or operator shall prepare and submit to the Administrator the reports required for closed-vent systems and control devices in accordance with the requirements of §63.693 in 40 C.F.R. part 63, Subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations. [Rule 19.304 and 40 C.F.R. § 63.928(a)]

40 C.F.R. § 63 Subpart G

Sources SN-40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8,
40F.FT9, 41F.FT10, 40F.FTA, 40F.FT11, 40F.TX1, 45F.TX10, BCC

WDF-131. The affected sources are subject, but not limited, to the requirements found in the following conditions while handling any waste stream accompanied by a 40 C.F.R. Part 63.132(g) notice until the waste is burned or transferred offsite pursuant to 63.132(g). [Rule 19.304 and 40 C.F.R. Rule 19.304 and 40 C.F.R. Part 63, Subpart G]

WDF-132. Off-site treatment or on-site treatment not owned or operated by the source. The owner or operator may elect to transfer a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream to an on-site treatment operation not owned or operated by the owner or operator of the source generating the wastewater stream or residual, or to an off-site treatment operation. [Rule 19.304 and 40 C.F.R. § 63.132(g)]

WDF-133. The owner or operator may not transfer the wastewater stream or residual unless the transferee has submitted to the EPA a written certification that the transferee will manage and treat any Group 1 wastewater stream or residual removed from a Group 1 wastewater stream received from a source subject to the requirements of this subpart in accordance with the requirements of either §63.133 through §63.147, or §63.102(b) of 40 C.F.R. Part 63, Subpart F, or Subpart D of 40 C.F.R. Part 63 if alternative emission limitations have been granted the transferor in accordance with those provisions. The certifying entity may revoke the written certification by sending a written statement to the EPA and the owner or operator giving at least 90 days notice that the certifying entity is rescinding acceptance of responsibility for compliance with the regulatory provisions listed in this paragraph. Upon expiration of the notice period, the owner or operator may not transfer the wastewater stream or residual to the treatment operation. [Rule 19.304 and 40 C.F.R. § 63.132(g)(2)]

WDF-134. By providing this written certification to the EPA, the certifying entity accepts responsibility for compliance with the regulatory provisions listed in paragraph (g)(2) of §63.132 with respect to any shipment of wastewater or residual covered by the written certification. Failure to abide by any of those provisions with respect to such shipments may result in enforcement action by the EPA against the certifying entity in accordance with the enforcement provisions applicable to violations of these provisions by owners or operators of sources. [Rule 19.304 and 40 C.F.R. § 63.132(g)(3)]

WDF-135. Written certifications and revocation statements, to the EPA from the transferees of wastewater or residuals shall be signed by the responsible official of the certifying entity, provide the name and address of the certifying entity, and be sent to the appropriate EPA Regional Office at the addresses listed in 40 C.F.R. 63.13. Such written certifications are not transferable by the treater. [Rule 19.304 and 40 C.F.R. § 63.132(g)(4)]

WDF-136. For each wastewater tank that receives, manages, or treats a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the owner or operator shall comply with the requirements of either paragraph (a)(1) or (a)(2) of §63.133 as specified in table 10 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.133(a)]

Table 10 to Subpart G of Part 63—Wastewater—Compliance Options for Wastewater Tanks

Capacity (m ³)	Maximum true vapor pressure (kPa)	Control requirements
<75		§63.133(a)(1)
“75 and <151	<13.1 ”13.1	§63.133(a)(1) §63.133(a)(2)

"151	<5.2 "5.2	§63.133(a)(1) §63.133(a)(2)
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WDF-137. The owner or operator shall comply with the requirements in paragraphs (b) through (h) of §63.133 and shall operate and maintain one of the emission control techniques listed in paragraphs (a)(2)(i) of §63.133. [Rule 19.304 and 40 C.F.R. § 63.133(a)(2)]

- a. A fixed roof and a closed-vent system that routes the organic hazardous air pollutants vapors vented from the wastewater tank to a control device. [Rule 19.304 and 40 C.F.R. § 63.133(a)(2)(i)]

WDF-138. If the owner or operator elects to comply with the requirements of paragraph (a)(2)(i) of §63.133, the fixed roof shall meet the requirements of paragraph (b)(1) of §63.133, the control device shall meet the requirements of paragraph (b)(2) of §63.133, and the closed-vent system shall meet the requirements of paragraph (b)(3) of §63.133. [Rule 19.304 and 40 C.F.R. § 63.133(b)]

WDF-139. The fixed-roof shall meet the following requirements: [Rule 19.304 and 40 C.F.R. § 63.133(b)(1)]

- a. Except as provided in paragraph (b)(4) of §63.133, the fixed roof and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be maintained in accordance with the requirements specified in §63.148 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.133(b)(1)(i)]
- b. Each opening shall be maintained in a closed position (e.g., covered by a lid) at all times that the wastewater tank contains a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream except when it is necessary to use the opening for wastewater sampling, removal, or for equipment inspection, maintenance, or repair. [Rule 19.304 and 40 C.F.R. § 63.133(b)(1)(ii)]

WDF-140. The control device shall be designed, operated, and inspected in accordance with the requirements of §63.139 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.133(b)(2)]

WDF-141. Except as provided in paragraph (b)(4), the closed-vent system shall be inspected in accordance with the requirements of §63.148 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.133(b)(3)]

WDF-142. For any fixed roof tank and closed-vent system that is operated and maintained under negative pressure, the owner or operator is not required to comply with the requirements specified in §63.148 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.133(b)(4)]

WDF-143. Except as provided in paragraph (e) of §63.133, each wastewater tank shall be inspected initially, and semi-annually thereafter, for improper work practices in accordance with §63.143 of 40 C.F.R. Part 63, Subpart G. For wastewater tanks,

- improper work practice includes, but is not limited to, leaving open any access door or other opening when such door or opening is not in use. [Rule 19.304 and 40 C.F.R. § 63.133(f)]
- WDF-144. Except as provided in paragraph (e) of §63.133, each wastewater tank shall be inspected for control equipment failures as defined in paragraph (g)(1) of §63.133 according to the schedule in paragraphs (g)(2) and (g)(3) of §63.133. [Rule 19.304 and 40 C.F.R. § 63.133(g)]
- WDF-145. Control equipment failures for wastewater tanks include, but are not limited to, the conditions specified in paragraphs (g)(1)(i) through (g)(1)(ix) of §63.133. [Rule 19.304 and 40 C.F.R. § 63.133(g)(1)]
- a. A gasket, joint, lid, cover, or door has a crack or gap, or is broken. [Rule 19.304 and 40 C.F.R. § 63.133(g)(1)(ix)]
- WDF-146. The owner or operator shall inspect for the control equipment failures in paragraph (g)(1)(ix) of §63.133 initially, and semi-annually thereafter. [Rule 19.304 and 40 C.F.R. § 63.133(g)(3)]
- WDF-147. Except as provided in §63.140 of 40 C.F.R. Part 63, Subpart G, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 45 calendar days after identification. If a failure that is detected during inspections required by this section cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical. [Rule 19.304 and 40 C.F.R. § 63.133(h)]
- WDF-148. For each container that receives, manages, or treats a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the owner or operator shall comply with the requirements of paragraphs (b) through (f) of §63.135. [Rule 19.304 and 40 C.F.R. § 63.135(a)]
- WDF-149. The owner or operator shall operate and maintain a cover on each container used to handle, transfer, or store a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream in accordance with the following requirements: [Rule 19.304 and 40 C.F.R. § 63.135(b)]
- WDF-150. Except as provided in paragraph (d)(4) of §63.135, if the capacity of the container is greater than 0.42 m³, the cover and all openings (e.g., bungs, hatches, sampling ports, and pressure relief devices) shall be maintained in accordance with the requirements

specified in §63.148 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.135(b)(1)]

WDF-151. If the capacity of the container is less than or equal to 0.42 m³, the owner or operator shall comply with either paragraph (b)(2)(i) or (b)(2)(ii) of §63.135. [Rule 19.304 and 40 C.F.R. § 63.135(b)(2)]

- a. The container must meet existing Department of Transportation specifications and testing requirements under 49 C.F.R. part 178; or [Rule 19.304 and 40 C.F.R. § 63.135(b)(2)(i)]
- b. Except as provided in paragraph (d)(4) of §63.135, the cover and all openings shall be maintained without leaks as specified in §63.148 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.135(b)(2)(ii)]

WDF-152. The cover and all openings shall be maintained in a closed position (e.g., covered by a lid) at all times that a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream is in the container except when it is necessary to use the opening for filling, removal, inspection, sampling, or pressure relief events related to safety considerations. [Rule 19.304 and 40 C.F.R. § 63.135(b)(3)]

WDF-153. For containers with a capacity greater than or equal to 0.42 m³, a submerged fill pipe shall be used when a container is being filled by pumping with a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream. [Rule 19.304 and 40 C.F.R. § 63.135(c)]

WDF-154. The submerged fill pipe outlet shall extend to no more than 6 inches or within two fill pipe diameters of the bottom of the container while the container is being filled. [Rule 19.304 and 40 C.F.R. § 63.135(c)(1)]

WDF-155. The cover shall remain in place and all openings shall be maintained in a closed position except for those openings required for the submerged fill pipe and for venting of the container to prevent physical damage or permanent deformation of the container or cover. [Rule 19.304 and 40 C.F.R. § 63.135(c)(2)]

WDF-156. During treatment of a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, including aeration, thermal or other treatment, in a container, whenever it is necessary for the container to be open, the container shall be located within an enclosure with a closed-vent system that routes the organic hazardous air pollutants vapors vented from the container to a control device. [Rule 19.304 and 40 C.F.R. § 63.135(d)]

WDF-157. Except as provided in paragraph (d)(4) of §63.135, the enclosure and all openings (e.g., doors, hatches) shall be maintained in accordance with the requirements specified in §63.148 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.135(d)(1)]

- WDF-158. The control device shall be designed, operated, and inspected in accordance with §63.139 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.135(d)(2)]
- WDF-159. Except as provided in paragraph (d)(4) of §63.135, the closed-vent system shall be inspected in accordance with §63.148 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.135(d)(3)]
- WDF-160. For any enclosure and closed-vent system that is operated and maintained under negative pressure, the owner or operator is not required to comply with the requirements specified in §63.148 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.135(d)(4)]
- WDF-161. Each container shall be inspected initially, and semi-annually thereafter, for improper work practices and control equipment failures in accordance with §63.143 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.135(e)]
- WDF-162. For containers, improper work practice includes, but is not limited to, leaving open any access hatch or other opening when such hatch or opening is not in use. [Rule 19.304 and 40 C.F.R. § 63.135(e)(1)]
- WDF-163. For containers, control equipment failure includes, but is not limited to, any time a cover or door has a gap or crack, or is broken. [Rule 19.304 and 40 C.F.R. § 63.135(e)(2)]
- WDF-164. Except as provided in §63.140 of 40 C.F.R. Part 63, Subpart G, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 15 calendar days after identification. [Rule 19.304 and 40 C.F.R. § 63.135(f)]
- WDF-165. General requirements. This section specifies the performance standards for treating Group 1 wastewater streams. The owner or operator shall comply with the requirements as specified in paragraphs (a)(1) through (a)(6) of §63.138. Where multiple compliance options are provided, the options may be used in combination for different wastewater streams and/or for different compounds (e.g., Table 8 versus Table 9 compounds) in the same wastewater streams, except where otherwise provided in this section. Once a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream has been treated in accordance with this subpart, it is no longer subject to the requirements of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.138(a)]
- WDF-166. Existing source. If the wastewater stream, at an existing source, is Group 1 for Table 9 compounds, comply with §63.138(b). [Rule 19.304 and 40 C.F.R. § 63.138(a)(1)]

- WDF-167. New source. If the wastewater stream, at a new source, is Group 1 for Table 8 compounds, comply with §63.138(c). If the wastewater stream, at a new source, is Group 1 for Table 9 compounds, comply with §63.138(b). If the wastewater stream, at a new source, is Group 1 for Table 8 and Table 9 compounds, comply with both §63.138(b) and §63.138(c). [Rule 19.304 and 40 C.F.R. § 63.138(a)(2)]
- WDF-168. Performance tests and design evaluations. If design steam stripper option (§63.138(d)) or Resource Conservation and Recovery Act (RCRA) option (§63.138(h)) is selected to comply with this section, neither a design evaluation nor a performance test is required. For any other non-biological treatment process, and for closed biological treatment processes as defined in §63.111 of 40 C.F.R. Part 63, Subpart G, the owner or operator shall conduct either a design evaluation as specified in §63.138(j), or a performance test as specified in §63.145, of 40 C.F.R. Part 63, Subpart G. For each open biological treatment process as defined in §63.111 of 40 C.F.R. Part 63, Subpart G, the owner or operator shall conduct a performance test as specified in §63.145 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.138(a)(4)]
- WDF-169. Control device requirements. When gases are vented from the treatment process, the owner or operator shall comply with the applicable control device requirements specified in §63.139 and §63.145 (i) and (j), and the applicable leak inspection provisions specified in §63.148, of 40 C.F.R. Part 63, Subpart G. This requirement does not apply to any open biological treatment process that meets the mass removal requirements. Vents from anaerobic biological treatment processes may be routed through hard-piping to a fuel gas system. [Rule 19.304 and 40 C.F.R. § 63.138(a)(5)]
- WDF-170. Control options: Group 1 wastewater streams for Table 9 compounds. The owner or operator shall comply with either paragraph (b)(1) or (b)(2) of §63.138 for the control of Table 9 compounds at new or existing sources. [Rule 19.304 and 40 C.F.R. § 63.138(b)]
- WDF-171. Other compliance options. Comply with the requirements specified in any one of paragraphs (d), (e), (f), (g), (h), or (i) of §63.138. [Rule 19.304 and 40 C.F.R. § 63.138(b)(2)]
- WDF-172. Control options: Group 1 wastewater streams for Table 8 compounds. The owner or operator shall comply with either paragraph (c)(1) or (c)(2) of §63.138 for the control of Table 8 compounds at new sources. [Rule 19.304 and 40 C.F.R. § 63.138(c)]
- WDF-173. Other compliance options. Comply with the requirements specified in any one of paragraphs (d), (e), (f), (g), (h), or (i) of §63.138. [Rule 19.304 and 40 C.F.R. § 63.138(c)(2)]
- WDF-174. Treatment in a RCRA unit option. The owner or operator shall treat the wastewater stream or residual in a unit identified in, and complying with, paragraph (h)(1), (h)(2),

- or (h)(3) of §63.138. These units are exempt from the design evaluation or performance tests requirements specified in §63.138(a)(3) and §63.138(j) of 40 C.F.R. Part 63, Subpart G, and from the monitoring requirements specified in §63.132(a)(2)(iii) and §63.132(b)(3)(iii) of 40 C.F.R. Part 63, Subpart G, as well as recordkeeping and reporting requirements associated with monitoring and performance tests. [Rule 19.304 and 40 C.F.R. § 63.138(h)]
- WDF-175. The wastewater stream or residual is discharged to a process heater or boiler burning hazardous waste for which the owner or operator: [Rule 19.304 and 40 C.F.R. § 63.138(h)(2)]
- Has been issued a final permit under 40 C.F.R. part 270 and complies with the requirements of 40 C.F.R. part 266, subpart H; or [Rule 19.304 and 40 C.F.R. § 63.138(h)(2)(i)]
 - Has certified compliance with the interim status requirements of 40 C.F.R. part 266, subpart H. [Rule 19.304 and 40 C.F.R. § 63.138(h)(2)(ii)]
- WDF-176. For each control device or combination of control devices used to comply with the provisions in §63.133 through §63.138 of 40 C.F.R. Part 63, Subpart G, the owner or operator shall operate and maintain the control device or combination of control devices in accordance with the requirements of paragraphs (b) through (f) of §63.139. [Rule 19.304 and 40 C.F.R. § 63.139(a)]
- WDF-177. Whenever organic hazardous air pollutants emissions are vented to a control device which is used to comply with the provisions of 40 C.F.R. Part 63, Subpart G, such control device shall be operating. [Rule 19.304 and 40 C.F.R. § 63.139(b)]
- WDF-178. The control device shall be designed and operated in accordance with paragraph (c)(1), (c)(2), (c)(3), (c)(4), or (c)(5) of §63.139. [Rule 19.304 and 40 C.F.R. § 63.139(c)]
- WDF-179. An enclosed combustion device (including but not limited to a vapor incinerator, boiler, or process heater) shall meet the conditions in paragraph (c)(1)(i), (c)(1)(ii), or (c)(1)(iii) of §63.139, alone or in combination with other control devices. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater. [Rule 19.304 and 40 C.F.R. § 63.139(c)(1)]
- Reduce the total organic compound emissions, less methane and ethane, or total organic hazardous air pollutants emissions vented to the control device by 95 percent by weight or greater; [Rule 19.304 and 40 C.F.R. § 63.139(c)(1)(i)]
 - Achieve an outlet total organic compound concentration, less methane and ethane, or total organic hazardous air pollutants concentration of 20 parts per million by volume on a dry basis corrected to 3 percent oxygen. The owner or operator shall use either Method 18 of 40 C.F.R. part 60, appendix A, or any other method or data that has been validated according to the applicable procedures in Method 301

of appendix A of 40 C.F.R. Part 63; or [Rule 19.304 and 40 C.F.R. § 63.139(c)(1)(ii)]

- c. Provide a minimum residence time of 0.5 seconds at a minimum temperature of 760 °C. [Rule 19.304 and 40 C.F.R. § 63.139(c)(1)(iii)]

WDF-180. A vapor recovery system (including but not limited to a carbon adsorption system or condenser), alone or in combination with other control devices, shall reduce the total organic compound emissions, less methane and ethane, or total organic hazardous air pollutants emissions vented to the control device of 95 percent by weight or greater or achieve an outlet total organic compound concentration, less methane and ethane, or total organic hazardous air pollutants concentration of 20 parts per million by volume, whichever is less stringent. The 20 parts per million by volume performance standard is not applicable to compliance with the provisions of §63.134 or §63.135 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.139(c)(2)]

WDF-181. Except as provided in paragraph (d)(4) of §63.139, an owner or operator shall demonstrate that each control device or combination of control devices achieves the appropriate conditions specified in paragraph (c) of §63.139 by using one or more of the methods specified in paragraphs (d)(1), (d)(2), or (d)(3) of §63.139. [Rule 19.304 and 40 C.F.R. § 63.139(d)]

WDF-182. An owner or operator using any control device specified in paragraphs (d)(4)(i) through (d)(4)(iv) of §63.139 is exempt from the requirements in paragraphs (d)(1) through (d)(3) of §63.139 and from the requirements in §63.6(f) of subpart A of 40 C.F.R. Part 63, and from the requirements of paragraph (e) of §63.139. [Rule 19.304 and 40 C.F.R. § 63.139(d)(4)]

- a. A boiler or process heater burning hazardous waste for which the owner or operator: [Rule 19.304 and 40 C.F.R. § 63.139(d)(4)(iii)]
 - i. Has been issued a final permit under 40 C.F.R. part 270 and complies with the requirements of 40 C.F.R. part 266, subpart H, or [Rule 19.304 and 40 C.F.R. § 63.139(d)(4)(iii)(A)]
 - ii. Has certified compliance with the interim status requirements of 40 C.F.R. part 266, subpart H. [Rule 19.304 and 40 C.F.R. § 63.139(d)(4)(iii)(B)]

WDF-183. The owner or operator of a control device that is used to comply with the provisions of this section shall monitor the control device in accordance with § 63.143 of this subpart. [Rule 19.304 and 40 C.F.R. § 63.139(e)]

WDF-184. Except as provided in §63.140 of 40 C.F.R. Part 63, Subpart G, if gaps, cracks, tears, or holes are observed in ductwork, piping, or connections to covers and control devices during an inspection, a first effort to repair shall be made as soon as practical but no later than 5 calendar days after identification. Repair shall be completed no later than 15 calendar days after identification or discovery of the defect. [Rule 19.304 and 40 C.F.R. § 63.139(f)]

WDF-185. Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the repair is technically infeasible without a shutdown, as defined in §63.101 of subpart F of 40 C.F.R. Part 63, or if the owner or operator determines that emissions of purged material from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of this equipment shall occur by the end of the next shutdown. [Rule 19.304 and 40 C.F.R. § 63.140(a)]

WDF-186. Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the equipment is emptied or is no longer used to treat or manage Group 1 wastewater streams or residuals removed from Group 1 wastewater streams. [Rule 19.304 and 40 C.F.R. § 63.140(b)]

WDF-187. Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified is also allowed if additional time is necessary due to the unavailability of parts beyond the control of the owner or operator. Repair shall be completed as soon as practical. The owner or operator who uses this provision shall comply with the requirements of §63.147(b)(7) to document the reasons that the delay of repair was necessary. [Rule 19.304 and 40 C.F.R. § 63.140(c)]

WDF-188. For each wastewater tank, surface impoundment, container, individual drain system, and oil-water separator that receives, manages, or treats a Group 1 wastewater stream, a residual removed from a Group 1 wastewater stream, a recycled Group 1 wastewater stream, or a recycled residual removed from a Group 1 wastewater stream, the owner or operator shall comply with the inspection requirements specified in table 11 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.143(a)]

Table 11 to Subpart G of Part 63—Wastewater—Inspection and Monitoring Requirements for Waste Management Units

To comply with	Inspection or monitoring requirement	Frequency of inspection or monitoring	Method
Tanks:			
63.133(b)(1)	Inspect fixed roof and all openings for leaks	Initially Semi-annually	Visual.
63.133(f) 63.133(g)	Inspect wastewater tank for control equipment failures and improper work practices	Initially Semi-annually	Visual.
Containers:			
63.135(b)(1), 63.135(b)(2) (ii)	Inspect cover and all openings for leaks	Initially Semi-annually	Visual.

To comply with	Inspection or monitoring requirement	Frequency of inspection or monitoring	Method
63.135(d)(1)	Inspect enclosure and all openings for leaks	Initially Semi-annually	Visual.
63.135(e)	Inspect container for control equipment failures and improper work practices	Initially Semi-annually	Visual.
Individual Drain Systems ^a :			
63.136(b)(1)	Inspect cover and all openings to ensure there are no gaps, cracks, or holes	Initially Semi-annually	Visual.
63.136(c)	Inspect individual drain system for control equipment failures and improper work practices	Initially Semi-annually	Visual.
63.136(e)(1)	Verify that sufficient water is present to properly maintain integrity of water seals	Initially Semi-annually	Visual.
63.136(e)(2), 63.136(f)(1)	Inspect all drains using tightly-fitted caps or plugs to ensure caps and plugs are in place and properly installed	Initially Semi-annually	Visual.
63.136(f)(2)	Inspect all junction boxes to ensure covers are in place and have no visible gaps, cracks, or holes	Initially Semi-annually	Visual or smoke test or other means as specified.
63.136(f)(3)	Inspect unburied portion of all sewer lines for cracks and gaps	Initially Semi-annually	Visual.

^aAs specified in §63.136(a), the owner or operator shall comply with either the requirements of §63.136 (b) and (c) or §63.136 (e) and (f).

WDF-189. If the owner or operator elects to comply with Item 3 in table 12 of this subpart, the owner or operator shall request approval to monitor appropriate parameters that demonstrate proper operation of the selected treatment process. The request shall be submitted according to the procedures specified in § 63.151(f) of this subpart, and shall include a description of planned reporting and recordkeeping procedures. The Administrator will specify appropriate reporting and recordkeeping requirements as part of the review of the permit application or by other appropriate means. [Rule 19.304 and 40 C.F.R. § 63.143(d)]

WDF-190. Except as provided in paragraphs (e)(4) and (e)(5) of §63.143, for each control device used to comply with the requirements of §63.133 through §63.139 of 40 C.F.R. Part 63, Subpart G, the owner or operator shall comply with the requirements in §63.139(d) of 40 C.F.R. Part 63, Subpart G, and with the requirements specified in paragraph (e)(1), (e)(2), or (e)(3) of §63.143. [Rule 19.304 and 40 C.F.R. § 63.143(e)]

WDF-191. The owner or operator shall comply with the monitoring requirements specified in table 13 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.143(e)(1)]

Table 13 to Subpart G of Part 63—Wastewater—Monitoring Requirements for Control Devices

Control Device	Monitoring equipment required	Parameters to be monitored	Frequency
All control devices	1. Flow indicator installed at all bypass lines to the atmosphere and equipped with continuous recorder ^b <i>or</i>	1. Presence of flow diverted from the control device to the atmosphere <i>or</i>	Hourly records of whether the flow indicator was operating and whether a diversion was detected at any time during each hour
	2. Valves sealed closed with car-seal or lock-and-key configuration	2. Monthly inspections of sealed valves	Monthly.
Thermal Incinerator	Temperature monitoring device installed in firebox or in ductwork immediately downstream of firebox ^a and equipped with a continuous recorder ^b	Firebox temperature	Continuous.
Carbon adsorber (Non-regenerative)	Organic compound concentration monitoring device. ^c	Organic compound concentration of adsorber exhaust	Daily or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater.
Alternative monitoring parameters	Other parameters may be monitored upon approval from the Administrator in accordance with the requirements in §63.143(e)(3)		

^b“Continuous recorder” is defined in §63.111 of 40 C.F.R. Part 63, Subpart G.

- WDF-192. For each parameter monitored in accordance with paragraph (c), (d), or (e) of §63.143, the owner or operator shall establish a range that indicates proper operation of the treatment process or control device. In order to establish the range, the owner or operator shall comply with the requirements specified in §§63.146(b)(7)(ii)(A) and (b)(8)(ii) of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.143(f)]
- WDF-193. Monitoring equipment shall be installed, calibrated, and maintained according to the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately. [Rule 19.304 and 40 C.F.R. § 63.143(g)]
- WDF-194. Procedures to determine applicability. An owner or operator shall comply with paragraph (a)(1) or (a)(2) of §63.144 for each wastewater stream to determine which wastewater streams require control for Table 8 and/or Table 9 compounds. The owner or operator may use a combination of the approaches in paragraphs (a)(1) and (a)(2) of §63.144 for different wastewater streams generated at the source. [Rule 19.304 and 40 C.F.R. § 63.144(a)]
- WDF-195. Designate as Group 1. An owner or operator may designate as a Group 1 wastewater stream a single wastewater stream or a mixture of wastewater streams. The owner or operator is not required to determine the concentration or flow rate for each designated Group 1 wastewater stream for the purposes of §63.144. [Rule 19.304 and 40 C.F.R. § 63.144(a)(2)]
- WDF-196. General. This section specifies the procedures for performance tests that are conducted to demonstrate compliance of a treatment process or a control device with the control requirements specified in §63.138 of 40 C.F.R. Part 63, Subpart G. Owners or operators conducting a design evaluation shall comply with the requirements of paragraph (a)(1) or (a)(2) of §63.145. Owners or operators conducting a performance test shall comply with the applicable requirements in paragraphs (a) through (i) of §63.145. [Rule 19.304 and 40 C.F.R. § 63.145(a)]
- WDF-197. Performance tests and design evaluations for treatment processes. If design steam stripper option (§63.138(d)) or RCRA option (§63.138(h)) is selected to comply with §63.138, neither a design evaluation nor a performance test is required. For any other non-biological treatment process, the owner or operator shall conduct either a design evaluation as specified in §63.138(j), or a performance test as specified in this section. For closed biological treatment processes, the owner or operator shall conduct either a design evaluation as specified in §63.138(j), or a performance test as specified in this section. For each open biological treatment process, the owner or operator shall conduct a performance test as specified in this section. [Rule 19.304 and 40 C.F.R. § 63.145(a)(1)]
- WDF-198. For each waste management unit that receives, manages, or treats a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the owner

or operator shall submit as part of the next Periodic Report required by §63.152(c) of 40 C.F.R. Part 63, Subpart G the results of each inspection required by §63.143(a) of 40 C.F.R. Part 63, Subpart G in which a control equipment failure was identified. Control equipment failure is defined for each waste management unit in §63.133 through §63.137 of 40 C.F.R. Part 63, Subpart G. Each Periodic Report shall include the date of the inspection, identification of each waste management unit in which a control equipment failure was detected, description of the failure, and description of the nature of and date the repair was made. [Rule 19.304 and 40 C.F.R. § 63.146(c)]

WDF-199. Except as provided in paragraph (f) of this section, for each treatment process used to comply with § 63.138(b)(1), (c)(1), (d), (e), (f), or (g), the owner or operator shall submit as part of the next Periodic Report required by § 63.152(c) the information specified in paragraphs (d)(1), (2), and (3) of this section for the monitoring required by § 63.143(b), (c), and (d). [Rule 19.304 and 40 C.F.R. § 63.146(d)]

WDF-200. For Item 3 in table 12 of this subpart, the owner or operator shall submit the monitoring results for each operating day during which the daily average value of any monitored parameter approved in accordance with § 63.151 (f) was outside the range established in the Notification of Compliance Status or operating permit. [Rule 19.304 and 40 C.F.R. § 63.146(d)(3)]

WDF-201. Except as provided in paragraph (f) of §63.146, for each control device used to comply with §63.133 through §63.139 of 40 C.F.R. Part 63, Subpart G, the owner or operator shall submit as part of the next Periodic Report required by §63.152(c) of 40 C.F.R. Part 63, Subpart G the information specified in either paragraph (e)(1) or (e)(2) of §63.146. [Rule 19.304 and 40 C.F.R. § 63.146(e)]

a. The information specified in table 20 of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.146(e)(1)]

Table 20 to Subpart G of Part 63—Wastewater—Periodic Reporting Requirements for Control Devices Subject to §63.139 Used To Comply With §63.13 Through §63.139

Control device	Reporting requirements
(1) Thermal Incinerator	Report all daily average ^a temperatures that are outside the range established in the NCS ^b or operating permit and all operating days when insufficient monitoring data are collected. ^c
(7) Carbon Adsorber (Non-Regenerative)	(i) Report all operating days when inspections not done according to the schedule developed as specified in table 13 of this subpart.
	(ii) Report all operating days when carbon has not been replaced at the frequency specified in table 13 of this subpart.
(8) All Control Devices	(i) Report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is not operating, or

Control device	Reporting requirements
	(ii) Report all monthly inspections that show the valves are moved to the diverting position or the seal has been changed.

^aThe daily average is the average of all values recorded during the operating day, as specified in §63.147(d).

^bNCS = Notification of Compliance Status described in §63.152.

^cThe periodic reports shall include the duration of periods when monitoring data are not collected for each excursion as defined in §63.152(c)(2)(ii)(A).

WDF-202. If an extension is utilized in accordance with §63.133(e)(2) or §63.133(h) of 40 C.F.R. Part 63, Subpart G, the owner or operator shall include in the next periodic report the information specified in §63.133 (e)(2) or §63.133(h). [Rule 19.304 and 40 C.F.R. § 63.146(g)]

WDF-203. The owner or operator shall keep in a readily accessible location the records specified in paragraphs (b)(1) through (8) of the section. [Rule 19.304 and 40 C.F.R. § 63.147(b)]

- a. A record that each waste management unit inspection required by §63.133 through §63.137 of 40 C.F.R. Part 63, Subpart G was performed. [Rule 19.304 and 40 C.F.R. § 63.147(b)(1)]
- b. A record that each inspection for control devices required by §63.139 of 40 C.F.R. Part 63, Subpart G was performed. [Rule 19.304 and 40 C.F.R. § 63.147(b)(2)]
- c. For Item 1 and Item 3 of table 12 of this subpart, the owner or operator shall keep the records approved by the Administrator. [Rule 19.304 and 40 C.F.R. § 63.147(b)(4)]
- d. Except as provided in paragraph (e) of §63.147, continuous records of the monitored parameters specified in Item 2 of table 12 and table 13 of 40 C.F.R. Part 63, Subpart G, and in §63.143(e)(2) of 40 C.F.R. Part 63, Subpart G. [Rule 19.304 and 40 C.F.R. § 63.147(b)(5)]
- e. Documentation of a decision to use an extension, as specified in §63.133(e)(2) or (h) of 40 C.F.R. Part 63, Subpart G, which shall include a description of the failure, documentation that alternate storage capacity is unavailable, and specification of a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical. [Rule 19.304 and 40 C.F.R. § 63.147(b)(6)]
- f. Documentation of a decision to use a delay of repair due to unavailability of parts, as specified in §63.140(c), shall include a description of the failure, the reason additional time was necessary (including a statement of why replacement parts were not kept on site and when the manufacturer promised delivery), and the date when repair was completed. [Rule 19.304 and 40 C.F.R. § 63.147(b)(7)]

WDF-204. The owner or operator shall keep records of the daily average value of each continuously monitored parameter for each operating day as specified in §63.152(f), except as provided in paragraphs (d)(1) through (3) of §63.147. [Rule 19.304 and 40 C.F.R. § 63.147(d)]

WDF-205. Non-regenerative carbon adsorbers. For non-regenerative carbon adsorbers using organic monitoring equipment, the owner or operator shall keep the records specified in paragraph (d)(3)(i) of §63.147 instead of daily averages. For non-regenerative carbon adsorbers replacing the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and organic concentration in the gas stream vented to the carbon adsorption system, the owner or operator shall keep the records specified in paragraph (d)(3)(ii) of §63.147 instead of daily averages. [Rule 19.304 and 40 C.F.R. § 63.147(d)(3)]

- a. Record of how the monitoring frequency, as specified in table 13 of 40 C.F.R. Part 63, Subpart G, was determined. [Rule 19.304 and 40 C.F.R. § 63.147(d)(3)(i)(A)]
- b. Records of when organic compound concentration of adsorber exhaust was monitored. [Rule 19.304 and 40 C.F.R. § 63.147(d)(3)(i)(B)]
- c. Records of when the carbon was replaced. [Rule 19.304 and 40 C.F.R. § 63.147(d)(3)(i)(C)]
- d. Record of how the carbon replacement interval, as specified in table 13 of 40 C.F.R. Part 63, Subpart G, was determined. [Rule 19.304 and 40 C.F.R. § 63.147(d)(3)(ii)(A)]
- e. Records of when the carbon was replaced. [Rule 19.304 and 40 C.F.R. § 63.147(d)(3)(ii)(B)]

WDF-206. Owners or operators who choose to comply with 40 C.F.R. part 65 must also comply with the applicable general provisions of this part 63 listed in table 1A of this subpart. All sections and paragraphs of subpart A of this part that are not mentioned in table 1A of this subpart do not apply to owners or operators who choose to comply with 40 C.F.R. part 65, except that provisions required to be met prior to implementing 40 C.F.R. part 65 still apply. Owners and operators who choose to comply with a subpart of 40 C.F.R. part 65 must comply with 40 C.F.R. part 65, subpart A. [Rule 19.304 and 40 C.F.R. § 63.110(i)(2)]

40 C.F.R. § 63 Subpart XX

Sources SN-40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8,
40F.FT9, 41F.FT10, 40F.FTA, 40F.FT11, 40F.TX1, 45F.TX10, BCC

WDF-207. The affected sources are subject to the following conditions while handling any waste stream accompanied by a 40 C.F.R. Part 63.1096 notice until the waste is burned or transferred off-site pursuant to §63.1096. [Rule 19.304 and 40 C.F.R. Part 63, Subpart XX]

WDF-208. The types of waste described in paragraphs (a) and (b) of this section are exempt from this subpart.

- a. Waste in the form of gases or vapors that is emitted from process fluids.

- b. Waste that is contained in a segregated storm water sewer system. [Rule 19.304 and 40 C.F.R. § 63.1094]

WDF-209. For waste that is not transferred off-site, you must comply with the requirements in paragraph (a) of §63.1095 for continuous butadiene waste streams and paragraph (b) of §63.1095 for benzene waste streams. If you transfer waste off-site, you must comply with the requirements of §63.1096. [Rule 19.304 and 40 C.F.R. § 63.1095]

WDF-210. Waste streams that contain benzene. For waste streams that contain benzene, you must comply with the requirements of 40 C.F.R. Part 61, Subpart FF, except as specified in Table 2 to 40 C.F.R. Part 63, Subpart XX. You must manage and treat waste streams that contain benzene as specified in either paragraph (b)(1) or (2) of §63.1095. [Rule 19.304 and 40 C.F.R. § 63.1095(b)]

- a. If the total annual benzene quantity from waste at your facility is less than 10 Mg/yr, as determined according to 40 C.F.R. 61.342(a), manage and treat spent caustic waste streams and dilution steam blowdown waste streams according to 40 C.F.R. 61.342(c)(1) through (c)(3)(i). The requirements of 40 C.F.R. 63.1095(b)(1) shall apply at all times except during periods of startup, shutdown, and malfunction, if the startup, shutdown, or malfunction precludes the ability of the affected source to comply with the requirements of §63.1095 and the owner or operator follows the provisions for periods of startup, shutdown, and malfunction, as specified in §63.1111. [Rule 19.304 and 40 C.F.R. § 63.1095(b)(1)]
- b. If the total annual benzene quantity from waste at your facility is greater than or equal to 10 Mg/yr, as determined according to 40 C.F.R. 61.342(a), you must manage and treat waste streams according to any of the options in 40 C.F.R. 61.342(c)(1) through (e) or transfer waste off-site. If you elect to transfer waste off-site, then you must comply with the requirements of §63.1096. [Rule 19.304 and 40 C.F.R. § 63.1095(b)(2)]

WDF-211. If you elect to transfer waste off-site, you must comply with the requirements in paragraphs (a) through (d) of §63.1095. [Rule 19.304 and 40 C.F.R. § 63.1096]

- a. Include a notice with the shipment or transport of each waste stream. The notice shall state that the waste stream contains organic HAP that are to be treated in accordance with the provisions of 40 C.F.R. Part 63, Subpart XX. When the transport is continuous or ongoing (for example, discharge to a publicly-owned treatment works), the notice shall be submitted to the treatment operator initially and whenever there is a change in the required treatment. [Rule 19.304 and 40 C.F.R. § 63.1096(a)]
- b. You may not transfer the waste stream unless the transferee has submitted to the Administrator a written certification that the transferee will manage and treat any waste stream received from a source subject to the requirements of 40 C.F.R. Part 63, Subpart XX in accordance with the requirements of 40 C.F.R. Part 63, Subpart XX. [Rule 19.304 and 40 C.F.R. § 63.1096(b)]
- c. By providing this written certification to the Administrator, the certifying entity accepts responsibility for compliance with the regulatory provisions in this

subpart with respect to any shipment of waste covered by the written certification. Failure to abide by any of those provisions with respect to such shipments may result in enforcement action by EPA against the certifying entity in accordance with the enforcement provisions applicable to violations of those provisions by owners or operators of sources. [Rule 19.304 and 40 C.F.R. § 63.1096(c)]

- d. The certifying entity may revoke the written certification by sending a written statement to the Administrator and you. The notice of revocation must provide at least 90 days notice that the certifying entity is rescinding acceptance of responsibility for compliance with the regulatory provisions of 40 C.F.R. Part 63, Subpart XX. Upon expiration of the notice period, you may not transfer the waste stream to that off-site treatment operation. Written certifications and revocation statements to the Administrator from the transferees of waste shall be signed by the responsible official of the certifying entity, provide the name and address of the certifying entity, and be sent to the appropriate EPA Regional Office at the addresses listed in 40 C.F.R. 63.13. Such written certifications are not transferable by the treater to other off-site waste treatment operators. [Rule 19.304 and 40 C.F.R. § 63.1096(d)]

Table 2 to Subpart XX of Part 63 - Requirements of 40 C.F.R. Part 61, Subpart FF, Not Included in the Requirements for This Subpart and Alternate Requirements

If the total annual benzene quantity for waste from your facility is * * *	Do not comply with:	Instead, comply with:
1. Less than 10 Mg/yr	40 C.F.R. 61.340	§63.1093.
	40 C.F.R. 61.342(c)(3)(ii), (d), and (e)	There is no equivalent requirement.
	40 C.F.R. 61.342(f)	§61.1096.
	40 C.F.R. 61.355(j) and (k)	There is no equivalent requirement.
	40 C.F.R. 61.356(b)(2)(ii), (b)(3) through (b)(5)	There is no equivalent requirement.
	The requirement to submit the information required in 40 C.F.R. 61.357(a) to the Administrator within 90 days after January 7, 1993	The requirement to submit the information required in 40 C.F.R. 61.357(a) as part of the Initial Notification required in 40 C.F.R. 63.1110(c).
	The requirement in 40 C.F.R. 61.357(d) to submit the information in 40 C.F.R. 61.357(d)(1) and (d)(2) if the TAB quantity from your facility is equal to or greater than 10 Mg/yr	The requirement to submit the information in 40 C.F.R. 61.357(d)(1) and (d)(2) for spent caustic, dilution steam blowdown, and continuous butadiene waste streams.

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If the total annual benzene quantity for waste from your facility is * * *	Do not comply with:	Instead, comply with:
	The requirement in 40 C.F.R. 61.357(d)(1) to submit the information required in 40 C.F.R. 63.357(d)(1) to the Administrator within 90 days after January 7, 1993	The requirement to submit the information required in 40 C.F.R. 61.357(d)(1) as part of the Notification of Compliance Status required in 40 C.F.R. 63.1110(d).
	40 C.F.R. 61.357(d)(3) through (d)(5)	There is no equivalent requirement.
2. Greater than or equal to 10 Mg/yr	40 C.F.R. 61.340	§61.1093.
	40 C.F.R. 61.342(f)	§61.1096.
	The requirement to submit the information required in 40 C.F.R. 61.357(a) to the Administrator within 90 days after January 7, 1993	The requirement to submit the information required in 40 C.F.R. 61.357(a) as part of the Initial Notification required in 40 C.F.R. 63.1110(c).
	The requirement in 40 C.F.R. 61.357(d) to submit the information in 40 C.F.R. 61.357(d)(1) and (d)(2) if the TAB quantity from your facility is equal to or greater than 10 Mg/yr	The requirement to submit the information in 40 C.F.R. 61.357(d)(1) and (d)(2) as part of the Notification of Compliance Status required in 40 C.F.R. 63.1110(d).

Sources Subject to 40 C.F.R. § 63 Subpart EEE

Source Description

The kiln, bypass, in-line raw mill, coal mill and clinker cooler all vent to this stack.

Specific Conditions

- EEE-1. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with the PM/PM₁₀ emission rates through compliance with Specific Condition EEE-3 and Plantwide Condition 9. Compliance with the SO₂, NO_x, and Lead emission rates shall be demonstrated through compliance with Plantwide Condition 9. Compliance with the VOC and CO emission rates shall be demonstrated through compliance with Specific Conditions EEE-4, EEE-5, and Plantwide Condition 9. [Rule 19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
44B.BF20	Dust Collector	Vents to 443.SK10		
443.BF10	Dust Collector, Raw Mill, Clinker Cooler, Preheater, and Kiln	Vents to 443.SK10		
443.BF30	Baghouse, Kiln Bypass	Vents to 443.SK10		
443.SK10	Stack, Raw Mill, Kiln, Coal Mill and Bypass Gas Exhaust	PM ₁₀ (Total) ¹	336.0	520.6
		PM ₁₀ (Filterable)	27.3	119.3
		SO ₂	616.0 ²	2,699.0
		VOC	44.6 ²	195.0
		CO	2,500 ³	1,714.0
		NO _x	678.0 ²	2,970.0
		Lead*	0.14	0.58

* HAPs included in the PM/VOC totals. Other HAPs are not included in any other totals unless specifically stated.

1. Includes Condensable and Filterable PM₁₀

2. 30-day rolling average value

3. 8-hour average

- EEE-2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with the PM/PM₁₀ emission rate through compliance with Specific Condition EEE-3 and Plantwide Condition 9. Compliance with the organic HAP emission rates shall be demonstrated through compliance with Specific Condition EEE-4. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr ¹	tpy
44B.BF20	Dust Collector	Vents to 443.SK10		
443.BF10	Dust Collector, Raw Mill, Clinker Cooler, Preheater, and Kiln	Vents to 443.SK10		
443.BF30	Baghouse, Kiln Bypass	Vents to 443.SK10		
443.SK10	Stack, Raw Mill, Kiln, Coal Mill and Bypass Gas Exhaust	PM	27.3	119.3
		Ammonia	78.0	164.0
		1,1,1-Trichloroethane	44.5 ³	195.0 ³
		1,1,2,2-Tetrachloroethane*		
		1,1,2-Trichloroethane*		
		1,1-Dichloroethane*		
		1,2,4-Trichlorobenzene*		
		1,2-Dichloroethane*		
		1,2-Dichloropropane*		
		1,3-Dichloropropene*		
		1,4-Dichlorobenzene*		
		1,4-Phenylenediamine*		
		2,4,5-Trichlorophenol*		
		2,4,6-Trichlorophenol*		
		2,4-Dinitrophenol*		
		2,4-Dinitrotoluene*		
		3,3'-Dichlorobenzidine*		
		4,4'-Methylenedianiline*		
		4-Aminobiphenyl*		
		4-Nitrobiphenyl*		
		4-Nitrophenol*		
		Acrylonitrile*		
		Allyl Chloride*		
		Aniline*		
		Benzene*		
		Benzidine*		
		bis(2-Chloroethyl) ether*		
		bis(2-Ethylhexyl) phthalate*		
		Bromoform*		
		Bromomethane*		
		Carbon disulfide*		
		Carbon tetrachloride*		
		Chlorobenzene*		
		Chloroform*		
		Chloromethane*		
		Cumene*		
		Diethanolamine*		

SN	Description	Pollutant	lb/hr ¹	tpy
		Dimethyl phthalate* Ethyl Acrylate* Ethylbenzene* Ethylene Glycol* Hexachlorobenzene* Hexachlorobutadiene* Hexachlorocyclopentadiene* Hexachloroethane* Hydroquinone* Iodomethane* Isophorone* Methyl Methacrylate* Methyl tert-butyl ether* Methylene chloride Napthalene* n-Hexane* Nitrobenzene* o-Anisidine* o-Toluidine* Pentachloronitrobenzene* Pentachlorophenol* Phenol* Styrene* Toluene* Vinyl acetate* Vinyl Bromide* Vinyl chloride* Xylene*		
		Dioxin/Furan*	2.93E-7 ⁴	1.3E-6 ⁴
		HCl Chlorine	95.15 ⁵	416.76 ⁵
		Arsenic* Beryllium* Cadmium* Chromium* Mercury*	0.04 ⁶ 0.04 ⁶ 0.14 ⁶ 0.04 ⁶ 0.09 ⁷	0.18 ⁶ 0.18 ⁶ 0.58 ⁶ 0.18 ⁶ 0.39 ⁷
		Antimony* Cobalt* Manganese* Nickel* Selenium*	27.3 ²	119.3 ²

* HAPs included in the PM/VOC totals. Other HAPs are not included in any other totals unless specifically stated.

1. lb/hr limits are on a 24-hour average basis.
2. Compliance shown through compliance with the PM/PM₁₀ emission rate
3. Compliance shown through compliance with the VOC limit
4. Compliance shown through compliance with Specific Condition EEE-119
5. Compliance shown through compliance with Specific Condition EEE-142
6. Compliance shown through compliance with Specific Condition EEE-132
7. Compliance shown through compliance with Specific Condition EEE-124

EEE-3. For the purpose of demonstrating compliance with the particulate matter standard of 0.15 kg/Mg dry feed (0.3 lb/ton dry feed) set forth in 40 C.F.R. 63, Subpart EEE, the permittee shall comply with the requested limit of 0.0069 gr/dscf at 7 percent O₂ which was used in the PM netting analysis. The requested limit is more restrictive than the particulate matter standard in 40 C.F.R. Part 63, Subpart EEE. For the purpose of demonstrating compliance with 0.0069 gr/dscf at 7 percent O₂ the permittee shall determine the portion of the stack gas emitted at SN-443.SK10 which shall be attributed to combustion processes taking place in the kilns. While the 0.0069 gr/dscf standard shall apply to the entire stream exiting the stack, only the portion of the total stack gas made up of gases from the kiln, coal-mill and bypass shall be corrected to 7 percent O₂. This determination shall be made by following the method listed below.

- a. Determine the air flow by volume of flue gas from the combined sources at 443.SK10 and from the clinker cooler.
 - i. Measure the volumetric air flow rate, temperature, and moisture from the clinker cooler, before it is ducted through the raw mill, assuming a 21% O₂ concentration, and;
 - ii. Measure the total volumetric air flow rate, O₂ content, moisture and temperature at 443.SK10.
- b. Convert both volumetric air flow rates to dry standard conditions.
- c. Determine the volumetric air flow rate of the combustion sources by subtracting the volumetric air flow from the clinker cooler from the total volumetric flow rate at 443.SK10 using the equations below.
- d. Use the ratio of the cooler gas air volumetric flow rate and the combustion gas air volumetric flow rate to calculate the weighted percent oxygen factor to be used in correcting the combustion gas calculation to 7% oxygen.

$$P_{cc} = (V_{cc}/V_{tsg})$$

$$P_{cg} = 1 - P_{cc}$$

where: P_{cc} = fraction of total stack gases attributed to the clinker cooler

V_{cc} = Volume of gases from clinker cooler (dscf)

V_{tsg} = volume of total stack gas (dscf)

P_{cg} = fraction of total stack gas attributed to the combustion emissions

- e. Calculate the O₂ content of the combustion gas stream using the following equation

$$O_{2cg} = O_{2tsg} - (O_{2cc} \times P_{cc})$$

$$P_{cg}$$

where: $O2_{cg}$ = oxygen concentration of the combustion gases
 $O2_{tsg}$ = measured oxygen concentration of total stack gases
 $O2_{cc}$ = oxygen concentration of clinker cooler gases (assumed to be 21%)
 P_{cc} = fraction of total stack gases attributed to the clinker cooler
 P_{cg} = fraction of total stack gas attributed to the combustion emissions

- f. The 0.0069 gr/dscf limit shall apply to the entire combined stream, but only the volume of combustion gases shall be corrected to 7% O_2 to show compliance with Specific Condition EEE-155. The permittee shall apply the corrections in a. through e. above to performance test results for the purposes of demonstrating compliance with the 0.0069 gr/dscf limit in Specific Condition EEE-155. The PM emission rate in gr/dscf of the total stream shall be determined using the following equation

$$\text{Grains of PM/dscf} = \frac{\text{Performance Test Results (lb/hr)}}{(V_{cc} + V_{cg}) \times 1 \text{ lb/7000 gr} \times 60 \text{ min/hr}}$$

where: V_{cc} = Volume of clinker cooler gas (dscfm)
 V_{cg} = Volume of combustion gas corrected to 7% O_2 (dscfm)

- EEE-4. The permittee shall not exceed the emission rates set forth in the following table. Compliance with the VOC and CO emission rates shall be demonstrated through use of the CEMS at 443.SK10. The CO CEMS shall be installed and operated in accordance with performance specification 4, 4A, or 4B found in 40 C.F.R. Part 60, Appendix B, and the ADEQ Continuous Emission Monitoring System Conditions (see attached copy in Appendix A of this permit). The permittee may calculate the VOC emissions from the main stack using a THC analyzer operated in accordance with performance specification 8A found in 40 C.F.R. Part 60, Appendix B, the ADEQ Continuous Emission Monitoring System Conditions, and the equation below the following table. The permittee shall organize the data to reflect the averaging times listed below. [Rule 19.901 and 40 C.F.R. § 52 Subpart E]

Pollutant	BACT Limit	Averaging Time
VOC	44.5 lb/hr 195 tpy	30-day rolling average 12-month rolling average
CO	2500 lb/hr	8-hr average

Equation for calculation VOC emissions from the main stack:

$$VOC_{\text{Stack}} = THC_{\text{Stack}} * \text{MethaneReductionFactor}_{\text{Stack}}$$

Where,

$THC_{stack} = \text{CEMS reading}$

$MethaneReductionFactor_{stack} = (1 - \text{Methane}/THC_{stack})$ based on periodic stack test readings

- EEE-5. The permittee shall test 443.SK10 kiln stack quarterly for the Methane Reduction Factor used in Specific Condition EEE-4. The permittee shall use EPA Reference Method 18 in conjunction with EPA Reference Method 25A, or EPA Reference Method 25A with methane cutter to determine the methane portion of the total hydrocarbons from the main kiln stack 443.SK10. Testing shall be conducted with the source operating at least at 90% of its permitted capacity. Failure to test within this range shall limit the permittee to operating within 10% above the tested rate. The unit's permitted operating capacity is defined as 220.83 short tons of clinker production per hour at 100%, and 5,300 short tons of clinker production per day. Testing shall be conducted in accordance with Plantwide Condition 3. [Rule 18.1002, Rule 19.702, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- EEE-6. RESERVED
- EEE-7. The requirements of 40 C.F.R. 63, Subpart LLL for in-line kiln/raw mill are not applicable to the in-line kiln/raw mill at the Foreman cement plant. The plant shall operate in compliance with the requirements of 40 C.F.R. 63, Subpart EEE, as found in Appendix K of this permit, at all times, whether hazardous waste is being combusted or not. Only in the event that Ash Grove permanently ceases combustion of hazardous waste in the kiln system, and undergoes and completes RCRA closure requirements and otherwise completes all obligations to terminate coverage of 40 C.F.R. Part 63, Subpart EEE, will the in-line kiln/raw shall become subject to the applicable requirements of 40 C.F.R. Part 63, Subpart LLL. [Rule 19.304 and 40 C.F.R. § 1206(b)(1)]

40 C.F.R. § 63 Subpart EEE

- EEE-8. The emission standards and operating requirements set forth in 40 C.F.R. Part 63, Subpart EEE apply at all times except: [Rule 19.304 and 40 C.F.R. § 63.1206(b)(1)]
- a. During periods of startup, shutdown, and malfunction, provided that hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cutoff for a period time not less than the hazardous waste residence time, excluding residues that may adhere to the combustion chamber surfaces after waste feed is stopped) during those periods of operation, as provided by paragraph (c)(2)(ii) of §63.1206; and [Rule 19.304 and 40 C.F.R. § 63.1206(b)(1)(i)]
 - b. When hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cutoff for a period time not less than the hazardous waste residence time, excluding residues that may adhere to the

combustion chamber surfaces after waste feed is stopped), and you have documented in the operating record that you are complying with all otherwise applicable requirements and standards promulgated under authority of sections 112 or 129 of the Clean Air Act in lieu of the emission standards under §§63.1203, 63.1204, 63.1205, 63.1215, 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, and 63.1221; the monitoring and compliance standards of §63.1206 and §§63.1207 through 63.1209, except the modes of operation requirements of §63.1209(q); and the notification, reporting, and recordkeeping requirements of §§63.1210 through 63.1212. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(1)(ii)]

- EEE-9. The Administrator will determine compliance with the emission standards of 40 C.F.R. Part 63, Subpart EEE as provided by 63.6(f)(2). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirements of 63.6(f)(2)(iii)(B) and 63.7(e)(1) to conduct performance testing under representative operating conditions. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(2)]
- EEE-10. The Administrator will make a finding concerning compliance with the emission standards and other requirements of 40 C.F.R. Part 63, Subpart EEE as provided by 63.6(f)(3). [Rule 19.304 and 40 C.F.R. § 63.1206(b)(3)]
- EEE-11. The Administrator may grant an extension of compliance with the emission standards of 40 C.F.R. Part 63, Subpart EEE as provided by §63.6(i) and §63.1213. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(4)]
- EEE-12. If you plan to change the design, operation, or maintenance practices of the source in a manner that may adversely affect compliance with any emission standard that is not monitored with a CEMS, the following must be followed: [Rule 19.304 and 40 C.F.R. § 63.1206(b)(5)(i)]
- a. You must notify the Administrator at least 60 days prior to the change, unless you document the circumstances that dictate such prior notice is not reasonably feasible. The notification must include: [Rule 19.304 and 40 C.F.R. § 63.1206(b)(5)(i)(A)]
 - i. A description of the changes and which emission standards may be affected; and [Rule 19.304 and 40 C.F.R. § 63.1206(b)(5)(i)(A)(1)]
 - ii. A comprehensive performance test schedule and test plan under the requirements of 63.1207(f) that will document compliance with the affected emission standard(s); [Rule 19.304 and 40 C.F.R. § 63.1206(b)(5)(i)(A)(2)]
 - b. You must conduct a comprehensive performance test under the requirements of 63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits as required under 63.1209, and submit to the Administrator a Notification of Compliance under 63.1207(j) and 63.1210(d); and [Rule 19.304 and 40 C.F.R. § 63.1206(b)(5)(i)(B)]

- c. 63.1206(b)(5)(i)(C) Restriction on waste burning [Rule 19.304 and 40 C.F.R. § 63.1206(b)(5)(i)(C)]
 - i. Except as provided by §63.1206(b)(5)(i)(C)(2), after the change and prior to submitting the notification of compliance, you must not burn hazardous waste for more than a total of 720 hours (renewable at the discretion of the Administrator) and only for purposes of pretesting or comprehensive performance testing. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(5)(i)(C)(1)]
 - ii. You may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. You must specify operating requirements, including limits on operating parameters, that will demonstrate compliance with the emission standards of 40 C.F.R. Part 63, Subpart EEE based on available information. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(5)(i)(C)(2)]
- EEE-13. If you determine that a change will not adversely affect compliance with the emission standards or operating requirements, you must document the change in the operating record upon making such change. You must revise as necessary the performance test plan, Documentation of Compliance, Notification of Compliance, and start-up, shutdown, and malfunction plan to reflect these changes. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(5)(ii)]
- EEE-14. You must document compliance with the DRE standard under 40 C.F.R. Part 63, Subpart EEE only once, provided that you do not modify the source after the DRE test in a manner that could affect the ability of the source to achieve the DRE standard. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(7)(i)(A)]
- EEE-15. You may use any DRE test data that documents that the source achieves the required level of DRE provided: [Rule 19.304 and 40 C.F.R. § 63.1206(b)(7)(i)(B)]
 - a. You have not modified the design or operation of the source in a manner that could effect the ability of the source to achieve the DRE standard since the DRE test was performed; and, [Rule 19.304 and 40 C.F.R. § 63.1206(b)(7)(i)(B)(1)]
 - b. The DRE test data meet quality assurance objectives determined on a site-specific basis. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(7)(i)(B)(2)]
- EEE-16. For sources that feed hazardous waste at a location in the combustion system other than the normal flame zone, you must demonstrate compliance with the DRE standard during each comprehensive performance test. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(7)(ii)(A)]
- EEE-17. A cement kiln that feeds hazardous waste at a location other than the normal flame zone need only demonstrate compliance with the DRE standard during three consecutive comprehensive performance tests provided that: [Rule 19.304 and 40 C.F.R. § 63.1206(b)(7)(ii)(B)(1)]

- a. All three tests achieve the DRE standard in 40 C.F.R. Part 63, Subpart EEE; and [Rule 19.304 and 40 C.F.R. § 63.1206(b)(7)(ii)(B)(1)(i)]
 - b. The design, operation, and maintenance features of each of the three tests are similar; [Rule 19.304 and 40 C.F.R. § 63.1206(b)(7)(ii)(B)(1)(ii)]
 - c. The data in lieu restriction of § 63.1207(c)(2)(iv) does not apply when complying with the provisions of paragraph (b)(7)(ii)(B) of 40 C.F.R. Part 63, Subpart EEE. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(7)(ii)(B)(1)(iii)]
- EEE-18. If at any time you change the design, operation, and maintenance features in a manner that could reasonably be expected to affect your ability to meet the DRE standard, then you must comply with the requirements of paragraph (b)(7)(ii)(A) of 40 C.F.R. Part 63, Subpart EEE. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(7)(ii)(B)(2)]
- EEE-19. For sources that do not use DRE previous testing to document conformance with the DRE standard pursuant to §63.1207(c)(2), you must perform DRE testing during the initial comprehensive performance test. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(7)(iii)]
- EEE-20. Any particulate matter and opacity standards or any permit or other emissions operating parameter limits or conditions, including any limitation on workplace practices, that are applicable to hazardous waste combustors to insure compliance with any particulate matter or opacity standard of parts 60, 61, 63, 264, 265, and 266 of Chapter I (i.e., any title 40 particulate or opacity standards) applicable to hazardous waste combustor do not apply while you conduct particulate matter continuous emissions monitoring system (CEMS) correlation tests. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(8)(i) and (ii)]
- EEE-21. For provisions of §63.1206(b)(8) to apply, you must develop a particulate matter CEMS correlation test plan that includes the following information. This test plan may be included as part of the comprehensive performance test plan required under §§63.1207(e) and (f): [Rule 19.304 and 40 C.F.R. § 63.1206(b)(8)(iii)(A)]
- a. Number of test conditions and number of runs for each test condition; [Rule 19.304 and 40 C.F.R. § 63.1206(b)(8)(iii)(A)(1)]
 - b. Target particulate matter emission level for each test condition; [Rule 19.304 and 40 C.F.R. § 63.1206(b)(8)(iii)(A)(2)]
 - c. How you plan to modify operations to attain the desired particulate matter emission levels; [Rule 19.304 and 40 C.F.R. § 63.1206(b)(8)(iii)(A)(3)]
 - d. Anticipated normal emission levels; and [Rule 19.304 and 40 C.F.R. § 63.1206(b)(8)(iii)(A)(4)]
 - e. Submit the test plan to the Administrator for approval at least 90 calendar days before the correlation test is scheduled to be conducted. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(8)(iii)(B)]
- EEE-22. The Administrator will review and approve/disapprove the correlation test plan under the procedures for review and approval of the site-specific test plan provided by

§63.7(c)(3)(i) and (iii). If the Administrator fails to approve or disapprove the correlation test plan with the time period specified by §63.7(c)(3)(i), the plan is considered approved, unless the Administrator has requested additional information. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(8)(iv)]

- EEE-23. The particulate matter and associated operating limits and conditions will not be waived for more than 96 hours, in the aggregate, for a correlation test, including all runs of all test conditions unless an extension to this limit has been granted by the Administrator prior to the occurrence. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(8)(v)]
- EEE-24. The stack sampling team must be on-site and prepared to perform correlation testing no later than 24 hours after you modify operations to attain the desired particulate matter emissions concentrations; unless you document in the correlation test plan that a longer period of conditioning is appropriate. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(8)(vi)]
- EEE-25. You must return to operating conditions indicative of compliance with the applicable particulate matter and opacity standards as soon as possible after correlation testing is completed. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(8)(vii)]
- EEE-26. You may petition the Administrator to request alternative standards to the mercury or hydrogen chloride/chlorine gas emission standards of this subpart, to the semivolatile metals emission standards under § § 63.1204, 63.1220(a)(3)(ii), or 63.1220(b)(3)(ii), or to the low volatile metals emissions standards under § § 63.1204, 63.1220(a)(4)(ii), or 63.1220(b)(4)(ii) if: [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(i)]
- a. You cannot achieve one or more of these standards while using maximum achievable control technology (MACT) because of raw material contributions to emissions of mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas; or [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(i)(A)]
 - b. You determine that mercury is not present at detectable levels in your raw material. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(i)(B)]
- EEE-27. The alternative standard that you recommend under paragraph (b)(10)(i)(A) of this section may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or chlorine, and/or an emission limitation. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(ii)]
- EEE-28. The alternative standard must include a requirement to use MACT, or better, applicable to the standard for which the source is seeking relief, as defined in paragraphs (b)(10)(viii) and (ix) of this section. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(iii)]
- EEE-29. The alternative standard petition you submit under paragraph (b)(10)(i)(A) of this section must include data or information documenting that raw material contributions

to emissions prevent you from complying with the emission standard even though the source is using MACT, as defined in paragraphs (b)(10)(viii) and (ix) of this section, for the standard for which you are seeking relief. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(iv)(A)]

- EEE-30. Alternative standard petitions that you submit under paragraph (b)(10)(i)(B) of this section must include data or information documenting that mercury is not present at detectable levels in raw materials. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(iv)(B)]
- EEE-31. You must include data or information with semivolatile metal and low volatile metal alternative standard petitions that you submit under paragraph (b)(10)(i)(A) of this section documenting that increased chlorine feedrates associated with the burning of hazardous waste, when compared to non-hazardous waste operations, do not significantly increase metal emissions attributable to raw materials. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(v)]
- EEE-32. You must include data or information with semivolatile metals, low volatile metals, and hydrogen chloride/chlorine gas alternative standard petitions that you submit under paragraph (b)(10)(i)(A) of this section documenting that emissions of the regulated metals and hydrogen chloride/chlorine gas attributable to the hazardous waste only will not exceed the emission standards in this subpart. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(vi)]
- EEE-33. You must not operate pursuant to your recommended alternative standards in lieu of emission standards specified in this subpart: [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(vii)]
- a. Unless the Administrator approves the provisions of the alternative standard petition request or establishes other alternative standards; and [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(vii)(A)]
 - b. Until you submit a revised Notification of Compliance that incorporates the revised standards. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(vii)(B)]
- EEE-34. For purposes of this alternative standard provision, MACT for existing hazardous waste burning cement kilns is defined as: [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(viii)]
- a. For mercury, a hazardous waste feedrate corresponding to an MTEC of 88 µg/dscm or less; [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(viii)(A)]
 - b. For semivolatile metals, a hazardous waste feedrate corresponding to an MTEC of 31,000 µg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(viii)(B)]
 - c. For low volatile metals, a hazardous waste feedrate corresponding to an MTEC of 54,000 µg/dscm or less, and use of a particulate matter control device that

- achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; and [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(viii)(C)]
- d. For hydrogen chloride/chlorine gas, a hazardous waste chlorine feedrate corresponding to an MTEC of 720,000 µgm/dscm or less. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(viii)(D)]
- EEE-35. For purposes of this alternative standard provision, MACT for new hazardous waste burning cement kilns is defined as: [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(ix)]
- a. For mercury, a hazardous waste feedrate corresponding to an MTEC of 7 µgm/dscm or less; [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(ix)(A)]
- b. For semivolatile metals, a hazardous waste feedrate corresponding to an MTEC of 31,000 µgm/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(ix)(B)]
- c. For low volatile metals, a hazardous waste feedrate corresponding to an MTEC of 15,000 µgm/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(ix)(C)]
- d. For hydrogen chloride/chlorine gas, a hazardous waste chlorine feedrate corresponding to an MTEC of 420,000 µgm/dscm or less. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(10)(ix)(D)]
- EEE-36. You must calculate the hazardous waste residence time and include the calculation in the performance test plan under §63.1207(f) and the operating record. You must also provide the hazardous waste residence time in the Documentation of Compliance under §63.1211(c) and the Notification of Compliance under §§63.1207(j) and 63.1210(d). [Rule 19.304 and 40 C.F.R. § 63.1206(b)(11)]
- EEE-37. You must conduct a minimum of three runs of a performance test required under §63.1207 to document compliance with the emission standards of 40 C.F.R. Part 63, Subpart EEE. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(12)(i)]
- EEE-38. You must document compliance with the emission standards based on the arithmetic average of the emission results of each run, except that you must document compliance with the destruction and removal efficiency standard for each run of the comprehensive performance test individually. [Rule 19.304 and 40 C.F.R. § 63.1206(b)(12)(ii)]
- EEE-39. Cement kilns that feed hazardous waste at a location other than the end where products are normally discharged and where fuels are normally fired must comply with the carbon monoxide and hydrocarbon standards of this subpart as follows: [Rule 19.304 and 40 C.F.R. § 63.1206(b)(13)(i)]
- a. For new sources, you must not discharge or cause combustion gases to be emitted into the atmosphere that contain either: [Rule 19.304 and 40 C.F.R. § 63.1206(b)(13)(i)(B)]

- i. Hydrocarbons in the main stack in excess of 20 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or [Rule 19.304 and 40 C.F.R. § 63.1206(b)(13)(i)(B)(1)]
- ii. Hydrocarbons both in the by-pass duct and at a preheater tower combustion gas monitoring location in excess of 10 parts per million by volume, at each location, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, and [Rule 19.304 and 40 C.F.R. § 63.1206(b)(13)(i)(B)(2)(i)]
- iii. Hydrocarbons in the main stack, if construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, to 50 parts per million by volume, over a 30-day block average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or [Rule 19.304 and 40 C.F.R. § 63.1206(b)(13)(i)(B)(2)(ii)]
- iv. If the only firing location of hazardous waste upstream (in terms of gas flow) of the point where combustion gases are diverted into the bypass duct is at the kiln end where products are normally discharged, then both hydrocarbons at the preheater tower combustion gas monitoring location in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, and either hydrocarbons in the by-pass duct in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, or carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, and corrected to 7 percent oxygen. If you comply with the carbon monoxide standard of 100 parts per million by volume in the by-pass duct, then you must also not discharge or cause combustion gases to be emitted into the atmosphere that contain hydrocarbons in the by-pass duct in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, at any time during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by § 63.1206(b)(7). [Rule 19.304 and 40 C.F.R. § 63.1206(b)(13)(i)(B)(3)(i)]

EEE-40. You must operate only under the operating requirements specified in the Documentation of Compliance under §63.1211(c) or the Notification of Compliance under §§63.1207(j) and 63.1210(d), except during performance tests under approved

test plans according to §63.1207(e), (f), and (g) and under the conditions of paragraph (b)(1)(i) or (ii) of §63.1206. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(1)(i)]

- EEE-41. The Documentation of Compliance and the Notification of Compliance must contain operating requirements including, but not limited to, the operating requirements of §63.1206 and §63.1209. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(1)(ii)]
- EEE-42. Failure to comply with the operating requirements is failure to ensure compliance with the emissions standards of 40 C.F.R. Part 63, Subpart EEE. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(1)(iii)]
- EEE-43. Operating requirements in the Notification of Compliance are applicable requirements for purposes of parts 70 and 71 of Chapter I. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(1)(iv)]
- EEE-44. The operating requirements specified in the Notification of Compliance will be incorporated in the Title V permit per Specific Condition EEE-165. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(1)(v)]
- EEE-45. You are subject to the startup, shutdown, and malfunction plan requirements of §63.6(e)(3). [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(i)]
- EEE-46. If you elect to comply with §§270.235(a)(1)(iii), 270.235(a)(2)(iii), or 270.235(b)(1)(ii) of Chapter I to address RCRA concerns that you minimize emissions of toxic compounds from startup, shutdown, and malfunction events (including releases from emergency safety vents), then you must comply with §63.1206(c)(2)(ii). [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(ii)]
- a. The startup, shutdown, and malfunction plan must include a description of potential causes of malfunctions, including releases from emergency safety vents, that may result in significant releases of hazardous air pollutants, and actions the source is taking to minimize the frequency and severity of those malfunctions. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(ii)(A)]
 - b. You must submit the startup, shutdown, and malfunction plan to the Administrator for review and approval. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(ii)(B)]
 - i. The Administrator will notify you of approval or intention to deny approval of the startup, shutdown, and malfunction plan within 90 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplemental information that you submit. Before disapproving the plan, the Administrator will notify you of the Administrator's intention to disapprove the plan together with: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(ii)(B)(1)]
 - 1. Notice of the information and findings on which intended disapproval is based; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(ii)(B)(1)(i)]

2. Notice of opportunity for you to present additional information to the Administrator before final action on disapproval of the plan. At the time the Administrator notifies you of intention to disapprove the plan, the Administrator will specify how much time you will have after being notified on the intended disapproval to submit additional information. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(ii)(B)(1)(ii)]
 - ii. You are responsible for ensuring that you submit any supplementary and additional information supporting your plan in a timely manner to enable the Administrator to consider whether to approve the plan. Neither your submittal of the plan, nor the Administrator's failure to approve or disapprove the plan, relieves you of the responsibility to comply with the provisions of this subpart. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(ii)(B)(2)]
 - c. Changes to the plan that may significantly increase emissions. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(ii)(C)]
 - i. You must request approval in writing from the Administrator within 5 days after making a change to the startup, shutdown, and malfunction plan that may significantly increase emissions of hazardous air pollutants. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(ii)(C)(1)]
 - ii. To request approval of such changes to the startup, shutdown, and malfunction plan, you must follow the procedures provided by paragraph (c)(2)(ii)(B) of this section for initial approval of the plan. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(ii)(C)(2)]
- EEE-47. You must identify in the plan the projected oxygen correction factor based on normal operations to use during periods of startup and shutdown. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(iii)]
- EEE-48. You must record the plan in the operating record. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(iv)]
- EEE-49. During malfunctions, the automatic waste feed cutoff requirements of §63.1206(c)(3) continue to apply, except for paragraphs (c)(3)(v) and (c)(3)(vi) of §63.1206. If you exceed a part 63, Subpart EEE, of Chapter I emission standard monitored by a CEMS or COMs or operating limit specified under §63.1209, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed, except as provided by paragraph (c)(3)(viii) of §63.1206. If the malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, however, you must cease feeding hazardous waste as quickly as possible. Although the automatic waste feed cutoff requirements continue to apply during a malfunction, an exceedance of an emission standard monitored by a CEMS or COMS or operating limit specified under §63.1209 is not a violation of 40 C.F.R. Part 63, Subpart EEE if you take the corrective measures prescribed in the startup, shutdown, and malfunction plan. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(v)(A)(1) and (2)]

- EEE-50. For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, you must: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(v)(A)(3)]
- Within 45 days of the 10th exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the startup, shutdown, and malfunction plan as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(v)(A)(3)(i)]
 - Record the results of the investigation and evaluation in the operating record, and include a summary of the investigation and evaluation, and any changes to the startup, shutdown, and malfunction plan, in the excess emissions report required under §63.10(e)(3). [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(v)(A)(3)(ii)]
- EEE-51. Compliance with AWFCO requirements when burning hazardous waste during startup and shutdown. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(v)(B)]
- If you feed hazardous waste during startup or shutdown, you must include waste feed restrictions (e.g., type and quantity), and other appropriate operating conditions and limits in the startup, shutdown, and malfunction plan. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(v)(B)(1)]
 - You must interlock the operating limits you establish under paragraph (c)(2)(v)(B)(1) of §63.1206 with the automatic waste feed cutoff system required under §63.1206(c)(3), except for paragraphs (c)(3)(v) and (c)(3)(vi) of §63.1206. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(v)(B)(2)]
 - When feeding hazardous waste during startup or shutdown, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed if you exceed the operating limits you establish under paragraph (c)(2)(v)(B)(1) of §63.1206, except as provided by paragraph (c)(3)(viii) of §63.1206. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(v)(B)(3)]
 - Although the automatic waste feed cutoff requirements of this paragraph (c)(2)(v)(B)(4) apply during startup and shutdown, an exceedance of an emission standard or operating limit is not a violation of 40 C.F.R. Part 63, Subpart EEE if you comply with the operating procedures prescribed in the startup, shutdown, and malfunction plan. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(2)(v)(B)(4)]
- EEE-52. Upon the compliance date, you must operate the combustor with a functioning system that immediately and automatically cuts off the hazardous waste feed, except as provided by paragraph (c)(3)(viii) of §63.1206: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(i)]
- When any of the following are exceeded: operating parameter limits specified under §63.1209; an emission standard monitored by CEMS; and the allowable combustion chamber pressure; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(i)(A)]

- b. When the span value of any CMS detector, except a CEMS, is met or exceeded; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(i)(B)]
 - c. Upon malfunction of a CMS monitoring an operating parameter limit specified under §63.1209 or an emission level; or [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(i)(C)]
 - d. When any component of the automatic waste feed cutoff system fails. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(i)(D)]
- EEE-53. During an automatic waste feed cutoff (AWFCO) you must continue to duct combustion gases to the air pollution control system while hazardous waste remains in the combustion chamber (i.e., if the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated). [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(ii)]
- EEE-54. You must continue to monitor during the cutoff the operating parameters for which limits are established under §63.1209 and the emissions required under that section to be monitored by a CEMS, and you must not restart the hazardous waste feed until the operating parameters and emission levels are within specified limits. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(iii)]
- EEE-55. If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of a parameter required to be interlocked with the AWFCO system under paragraph (c)(3)(i) of §63.1206, you have failed to comply with the AWFCO requirements of paragraph (c)(3) of §63.1206. If an equipment or other failure prevents immediate and automatic cutoff of the hazardous waste feed, however, you must cease feeding hazardous waste as quickly as possible. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(iv)]
- EEE-56. If, after any AWFCO, there is an exceedance of any emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber (i.e., whether the hazardous waste residence time has transpired since the hazardous waste feed cutoff system was activated), you must investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs and record the findings and corrective measures in the operating record. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(v)]
- EEE-57. For each set of 10 exceedances of an emissions standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff), excluding residues that may adhere to the combustion chamber surfaces after waste feed is stopped, during a 60-day block period, you must submit to the Administrator a written report within 5 calendar days of the 10th exceedance documenting the exceedances and the results of the investigation and corrective measures taken. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(vi)(A)]

- EEE-58. On a case-by-case basis, the Administrator may require excessive exceedance reporting when fewer than 10 exceedances occur during a 60-day block period. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(vi)(B)]
- EEE-59. The AWFCO system and associated alarms must be tested at least weekly to verify operability, unless you document in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, you must conduct operability testing at least monthly. You must document and record in the operating record AWFCO operability test procedures and results. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(vii)]
- EEE-60. You may ramp down the waste feedrate of pumpable hazardous waste over a period not to exceed one minute, except as provided by paragraph (c)(3)(viii)(B). If you elect to ramp down the waste feed, you must document ramp down procedures in the operating and maintenance plan. The procedure must specify that the ramp down begins immediately upon initiation of automatic waste feed cutoff and the procedures must prescribe a bona fide ramping down. If an emission standard or operating limit is exceeded during the ramp down, you have failed to comply with the emission standards or operating requirements of 40 C.F.R. Part 63, Subpart EEE. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(viii)(A)]
- EEE-61. If the automatic waste feed cutoff is triggered by an exceedance of any of the following operating limits, you may not ramp down the waste feed cutoff: Minimum combustion temperature, maximum hazardous waste feedrate, or any hazardous waste firing system operating limits that may be established for the combustor. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(3)(viii)(B)]
- EEE-62. Emergency safety vent (ESV) operating and reporting requirements set forth in §63.1206(c)(4). [Rule 19.304 and 40 C.F.R. § 63.1206(c)(4)]
- a. If an emergency safety vent (ESV) opens when hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not expired) during an event other than a malfunction as defined in the startup, shutdown, and malfunction plan such that combustion gases are not treated as during the most recent comprehensive performance test (e.g., if the combustion gas by-passes any emission control device that was operating during the performance test), you must document in the operating record whether you remain in compliance with the emission standards of this subpart considering emissions during the ESV opening event. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(4)(i)]
 - b. ESV operating plan. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(4)(ii)]
 - i. You must develop an ESV operating plan, comply with the operating plan, and keep the plan in the operating record. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(4)(ii)(A)]
 - ii. The ESV operating plan must provide detailed procedures for rapidly stopping the waste feed, shutting down the combustor, and maintaining temperature and negative pressure in the combustion chamber during the

hazardous waste residence time, if feasible. The plan must include calculations and information and data documenting the effectiveness of the plan's procedures for ensuring that combustion chamber temperature and negative pressure are maintained as is reasonably feasible. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(4)(ii)(B)]

- c. After any ESV opening that results in a failure to meet the emission standards as defined in paragraph (c)(4)(i) of this section, you must investigate the cause of the ESV opening, take appropriate corrective measures to minimize such future ESV openings, and record the findings and corrective measures in the operating record. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(4)(iii)]
- d. You must submit to the Administrator a written report within 5 days of an ESV opening that results in failure to meet the emission standards of this subpart (as determined in paragraph (c)(4)(i) of this section) documenting the result of the investigation and corrective measures taken. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(4)(iv)]

EEE-63. Combustion system leak control system operating and reporting requirements set forth in §63.1206(c)(5). [Rule 19.304 and 40 C.F.R. § 63.1206(c)(5)]

- a. Combustion system leaks of hazardous air pollutants must be controlled by: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(5)(i)]
 - i. Keeping the combustion zone sealed to prevent combustion system leaks; or [Rule 19.304 and 40 C.F.R. § 63.1206(c)(5)(i)(A)]
 - ii. Maintaining the maximum combustion zone pressure lower than ambient pressure using an instantaneous monitor; or [Rule 19.304 and 40 C.F.R. § 63.1206(c)(5)(i)(B)]
 - iii. Upon prior written approval of the Administrator, an alternative means of control to provide control of combustion system leaks equivalent to maintenance of combustion zone pressure lower than ambient pressure; or [Rule 19.304 and 40 C.F.R. § 63.1206(c)(5)(i)(C)]
 - iv. Upon prior written approval of the Administrator, other technique(s) which can be demonstrated to prevent fugitive emissions without use of instantaneous pressure limits; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(5)(i)(D)]
- b. You must specify in the performance test workplan and Notification of Compliance the method that will be used to control combustion system leaks. If you control combustion system leaks by maintaining the combustion zone pressure lower than ambient pressure using an instantaneous monitor, you must also specify in the performance test workplan and Notification of Compliance the monitoring and recording frequency of the pressure monitor, and specify how the monitoring approach will be integrated into the automatic waste feed cutoff system. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(5)(ii)]

EEE-64. Operator training and certification standards set forth in §63.1206(c)(6). [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)]

- a. You must establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of hazardous air pollutants from the source. Such persons include, but are not limited to, chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feedstreams, persons that manage and charge feedstreams to the combustor, persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the "certification" for personnel, except that, for control room operators, the training and certification program shall be as specified in paragraphs (c)(6)(iii) through (c)(6)(vi) of this section. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(i)]
- b. You must ensure that the source is operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may affect emissions of hazardous air pollutants. A certified control room operator must be on duty at the site at all times the source is in operation. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(ii)]
- c. Control room operators of cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, and hydrochloric acid production furnaces must be trained and certified under: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(iv)]
 - i. A site-specific, source-developed and implemented program that meets the requirements of paragraph (c)(6)(v) of this section; or [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(iv)(A)]
 - ii. A State program. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(iv)(B)]
- d. Site-specific, source developed and implemented training programs for control room operators must include the following elements: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)]
 - i. Training on the following subjects: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)(A)]
 1. Environmental concerns, including types of emissions; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)(A)(1)]
 2. Basic combustion principles, including products of combustion; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)(A)(2)]
 3. Operation of the specific type of combustor used by the operator, including proper startup, waste firing, and shutdown procedures; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)(A)(3)]
 4. Combustion controls and continuous monitoring systems; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)(A)(4)]
 5. Operation of air pollution control equipment and factors affecting performance; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)(A)(5)]

6. Inspection and maintenance of the combustor, continuous monitoring systems, and air pollution control devices; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)(A)(6)]
 7. Actions to correct malfunctions or conditions that may lead to malfunction; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)(A)(7)]
 8. Residue characteristics and handling procedures; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)(A)(8)]
 9. Applicable Federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)(A)(9)]
 - ii. An examination designed and administered by the instructor; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)(B)]
 - iii. Written material covering the training course topics that may serve as reference material following completion of the course. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(v)(C)]
 - e. To maintain control room operator qualification under a site-specific, source developed and implemented training program as provided by paragraph (c)(6)(v) of this section, control room operators must complete an annual review or refresher course covering, at a minimum, the following topics: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(vi)]
 - i. Update of regulations; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(vi)(A)]
 - ii. Combustor operation, including startup and shutdown procedures, waste firing, and residue handling; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(vi)(B)]
 - iii. Inspection and maintenance; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(vi)(C)]
 - iv. Responses to malfunctions or conditions that may lead to malfunction; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(vi)(D)]
 - v. Operating problems encountered by the operator. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(vi)(E)]
 - f. You must record the operator training and certification program in the operating record. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(6)(vii)]
- EEE-65. Operation and maintenance plan which complies with the requirements set forth in §63.1206(c)(7). [Rule 19.304 and 40 C.F.R. § 63.1206(c)(7)]
- a. You must prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(7)(i)]
 - b. The plan must prescribe how you will operate and maintain the combustor in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(7)(ii)]

- c. This plan ensures compliance with the operation and maintenance requirements of § 63.6(e) and minimizes emissions of pollutants, automatic waste feed cutoffs, and malfunctions. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(7)(iii)]
- d. You must record the plan in the operating record. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(7)(iv)]

EEE-66. Bag leak detection system requirements set forth in §63.1206(c)(8). [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)]

- a. If your combustor is equipped with a baghouse (fabric filter), you must continuously operate either: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(i)]
 - i. A bag leak detection system that meets the specifications and requirements of paragraph (c)(8)(ii) of this section and you must comply with the corrective measures and notification requirements of paragraphs (c)(8)(iii) and (iv) of this section; or [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(i)(A)]
 - ii. A particulate matter detection system under paragraph (c)(9) of this section. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(i)(B)]
- b. Bag leak detection system specification and requirements. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(ii)]
 - i. The bag leak detection system must be certified by the manufacturer to be capable of continuously detecting and recording particulate matter emissions at concentrations of 1.0 milligrams per actual cubic meter unless you demonstrate, under § 63.1209(g)(1), that a higher detection limit would routinely detect particulate matter loadings during normal operations; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(ii)(A)]
 - ii. The bag leak detection system shall provide output of relative or absolute particulate matter loadings; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(ii)(B)]
 - iii. The bag leak detection system shall be equipped with an alarm system that will sound an audible alarm when an increase in relative particulate loadings is detected over a preset level; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(ii)(C)]
 - iv. The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(ii)(D)]
 - v. The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(ii)(E)]
 - vi. Following initial adjustment, you must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the operation and maintenance plan required under paragraph (c)(7) of

- this section. You must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(ii)(F)]
- vii. For negative pressure or induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector shall be installed downstream of the baghouse and upstream of any wet acid gas scrubber; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(ii)(G)]
 - viii. Where multiple detectors are required, the system's instrumentation and alarm system may be shared among the detectors. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(ii)(H)]
- c. The operating and maintenance plan required by paragraph (c)(7) of this section must include a corrective measures plan that specifies the procedures you will follow in the case of a bag leak detection system alarm or malfunction. The corrective measures plan must include, at a minimum, the procedures used to determine and record the time and cause of the alarm or bag leak detection system malfunction in accordance with the requirements of paragraph (c)(8)(iii)(A) of this section as well as the corrective measures taken to correct the control device or bag leak detection system malfunction or to minimize emissions in accordance with the requirements of paragraph (c)(8)(iii)(B) of this section. Failure to initiate the corrective measures required by this paragraph is failure to ensure compliance with the emission standards in this subpart. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iii)]
- i. You must initiate the procedures used to determine the cause of the alarm or bag leak detection system malfunction within 30 minutes of the time the alarm first sounds; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iii)(A)]
 - ii. You must alleviate the cause of the alarm or bag leak detection system malfunction by taking the necessary corrective measure(s) which may include, but are not to be limited to, the following: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iii)(B)]
 - 1. Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iii)(B)(1)]
 - 2. Sealing off defective bags or filter media; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iii)(B)(2)]
 - 3. Replacing defective bags or filter media, or otherwise repairing the control device; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iii)(B)(3)]
 - 4. Sealing off a defective baghouse compartment; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iii)(B)(4)]

5. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system; or [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iii)(B)(5)]
 6. Shutting down the combustor. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iii)(B)(6)]
- d. If you operate the combustor when the detector response exceeds the alarm set-point or the bag leak detection system is malfunctioning more than 5 percent of the time during any 6-month block time period, you must submit a notification to the Administrator within 30 days of the end of the 6-month block time period that describes the causes of the exceedances and bag leak detection system malfunctions and the revisions to the design, operation, or maintenance of the combustor, baghouse, or bag leak detection system you are taking to minimize exceedances and bag leak detection system malfunctions. To document compliance with this requirement: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iv)]
- i. You must keep records of the date, time, and duration of each alarm and bag leak detection system malfunction, the time corrective action was initiated and completed, and a brief description of the cause of the alarm or bag leak detection system malfunction and the corrective action taken; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iv)(A)]
 - ii. You must record the percent of the operating time during each 6-month period that the alarm sounds and the bag leak detection system malfunctions; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iv)(B)]
 - iii. If inspection of the fabric filter demonstrates that no corrective action is required, then no alarm time is counted; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iv)(C)]
 - iv. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. Each bag leak detection system malfunction shall also be counted as a minimum of 1 hour. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(8)(iv)(D)]
- EEE-67. Particulate matter detection system requirements. You must continuously operate a particulate matter detection system (PMDS) that meets the specifications and requirements of paragraphs (c)(9)(i) through (v) of this section and you must comply with the corrective measures and notification requirements of paragraphs (c)(9)(vii) and (viii) of this section if your combustor either: Is equipped with an electrostatic precipitator or ionizing wet scrubber and you do not establish site-specific control device operating parameter limits under §63.1209(m)(1)(iv) that are linked to the automatic waste feed cutoff system under paragraph (c)(3) of this section, or is equipped with a baghouse (fabric filter) and you do not operate a bag leak detection system as provided by paragraph (c)(8)(i)(B) of this section. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)]
- a. PMDS requirements. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(i)]
 - i. The PMDS must be certified by the manufacturer to be capable of continuously detecting and recording particulate matter emissions at

- concentrations of 1.0 milligrams per actual cubic meter unless you demonstrate, under § 63.1209(g)(1), that a higher detection limit would routinely detect particulate matter loadings during normal operations; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(i)(A)]
- ii. The particulate matter detector shall provide output of relative or absolute particulate matter loadings; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(i)(B)]
 - iii. The PMDS shall be equipped with an alarm system that will sound an audible alarm when an increase in relative or absolute particulate loadings is detected over the set-point; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(i)(C)]
 - iv. You must install, operate, and maintain the PMDS in a manner consistent with the provisions of paragraph (c)(9) of this section and available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, maintenance and quality assurance of the system. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(i)(D)]
 1. If you establish the alarm set-point without extrapolation under paragraph (c)(9)(iii)(A) of this section, you must request approval from the regulatory authority, in the continuous monitoring system test plan, of the quality assurance procedures that will reasonably ensure that PMDS response values below the alarm set-point correspond to PM emission concentrations below those demonstrated during the comprehensive performance test. Your recommended quality assurance procedures may include periodic testing under as-found conditions (i.e., normal operations) to obtain additional PM concentration and PMDS response run pairs, as warranted. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(i)(D)(1)]
 2. If you establish the alarm set-point by extrapolation under paragraph (c)(9)(iii)(B) of this section, you must request approval from the regulatory authority, in the continuous monitoring system test plan, of the quality assurance procedures that will reasonably ensure that PMDS response values below the alarm set-point correspond to PM emission concentrations below the value that correlates to the alarm set-point. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(i)(D)(2)]
 - v. You must include procedures for installation, operation, maintenance, and quality assurance of the PMDS in the site-specific continuous monitoring system test plan required under § § 63.1207(e) and 63.8(e)(3); [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(i)(E)]
 - vi. Where multiple detectors are required to monitor multiple control devices, the system's instrumentation and alarm system may be shared among the detectors. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(i)(F)]

- vii. You must establish the alarm set-point as a 6-hour rolling average as provided by paragraphs (c)(9)(ii), (c)(9)(iii), and (c)(9)(iv) of this section; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(i)(G)]
- viii. Your PMDS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must update the 6-hour rolling average of the detector response each hour with a one-hour block average that is the average of the detector responses over each 15-minute block; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(i)(H)]
- ix. If you exceed the alarm set-point (or if your PMDS malfunctions), you must comply with the corrective measures under paragraph (c)(9)(vii) of this section. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(i)(I)]
- b. You must establish the alarm set-point for operations under the Documentation of Compliance (i.e., after the compliance date but prior to submitting a Notification of Compliance subsequent to conducting the initial comprehensive performance test) of an existing source as follows: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(ii)]
- c. You must establish the initial alarm set-point for operations under the Notification of Compliance as provided by either paragraph (c)(9)(iii)(A) or paragraph (c)(9)(iii)(B) of this section. You must periodically revise the alarm set-point as provided by paragraph (c)(9)(iv) of this section. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iii)]
 - i. Establishing the initial set-point without extrapolation. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iii)(A)]
 - 1. If you establish the initial alarm set-point without extrapolation, the alarm set-point is the average of the test run averages of the PMDS response during the runs of the comprehensive performance test that document compliance with the PM emission standard. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iii)(A)(1)]
 - 2. During the comprehensive performance test, you may simulate PM emission concentrations at the upper end of the range of normal operations by means including feeding high levels of ash and detuning the emission control equipment. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iii)(A)(2)]
 - ii. You may extrapolate the particulate matter detector response to establish the alarm set-point under the following procedures: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iii)(B)]
 - 1. You must request approval from the regulatory authority, in the continuous monitoring system test plan, of the procedures you will use to establish an approximate correlation curve using the three pairs of Method 5 or 5I data (see methods in appendix A–3 of part 60 of this chapter) and PMDS data from the comprehensive performance test, the data pairs used to establish the correlation curve for the Documentation of Compliance under paragraph

- (c)(9)(ii) of this section, and additional data pairs, as warranted. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iii)(B)(1)]
2. You must request approval from the regulatory authority, in the continuous monitoring system test plan, of your determination of whether multiple correlation curves are needed considering the design and operation of your combustor and PMDS. If so, you must recommend the number of data pairs needed to establish those correlation curves and how the data will be obtained. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iii)(B)(2)]
 3. During the comprehensive performance test, you may simulate PM emission concentrations at the upper end of the range of normal operations by means including feeding high levels of ash and detuning the emission control equipment. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iii)(B)(3)]
 4. Data obtained up to 60 months prior to the comprehensive performance test may be used provided that the design and operation of the combustor or PMDS has not changed in a manner that may adversely affect the correlation of PM concentrations and PMDS response. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iii)(B)(4)]
 5. You may include a zero point correlation value. To establish a zero point, you must follow the procedures under paragraph (c)(9)(ii)(C)(2) of this section. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iii)(B)(5)]
 6. You must use a least-squares regression model to correlate PM concentrations to PMDS responses for data pairs. You may assume a linear regression model approximates the relationship between PM concentrations and PMDS responses. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iii)(B)(6)]
 7. You must establish the alarm set-point as the PMDS response that corresponds to a PM concentration that is 50% of the PM emission standard or 125% of the highest PM concentration used to develop the correlation, whichever is greater. The emission concentration used to extrapolate the PMDS response must not exceed the PM emission standard. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iii)(B)(7)]
- d. Revising the Notification of Compliance alarm set-point. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iv)]
 - i. If you establish the alarm set-point without extrapolation under paragraph (c)(9)(iii)(A) of this section, you must establish a new alarm set-point in the Notification of Compliance following each comprehensive performance test as the average of the test run averages of the PMDS response during the runs of the comprehensive performance test that document compliance with the PM emission standard. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iv)(A)]

- ii. If you establish the alarm set-point by extrapolation under paragraph (c)(9)(iii)(B) of this section, you must request approval from the regulatory authority, in the continuous monitoring system test plan, of the procedures for periodically revising the alarm set-point, considering the additional data pairs obtained during periodic comprehensive performance tests and data pairs obtained from other tests, such as for quality assurance. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(iv)(B)]
- e. Quality assurance. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(v)]
 - i. If you establish the alarm set-point without extrapolation under paragraph (c)(9)(iii)(A) of this section, you must request approval from the regulatory authority, in the continuous monitoring system test plan, of the quality assurance procedures that reasonably ensure that PMDS response values below the alarm set-point correspond to PM emission concentrations below the average of the PM concentrations demonstrated during the comprehensive performance test. Your recommended quality assurance procedures may include periodic testing under as-found conditions (i.e., normal operations) to obtain additional PM concentration and PMDS response run pairs, as warranted. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(v)(A)]
 - ii. If you establish the alarm set-point by extrapolation under paragraph (c)(9)(iii)(B) of this section, you must request approval from the regulatory authority, in the continuous monitoring system test plan, of the quality assurance procedures that reasonably ensure that PMDS response values below the alarm set-point correspond to PM emission concentrations below the value that correlated to the alarm set-point. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(v)(B)]
- f. For a PMDS for which the alarm set-point is established by extrapolation using a correlation curve under paragraphs (c)(9)(ii), (c)(9)(iii)(B), and (c)(9)(iv)(B) of this section, an exceedance of the PMDS response that appears to correlate with a PM concentration that exceeds the PM emission standard is not by itself evidence that the standard has been exceeded. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(vi)]
- g. The operating and maintenance plan required by paragraph (c)(7) of this section must include a corrective measures plan that specifies the procedures you will follow in the case of a PMDS alarm or malfunction. The corrective measures plan must include, at a minimum, the procedures used to determine and record the time and cause of the alarm or PMDS malfunction as well as the corrective measures taken to correct the control device or PMDS malfunction or minimize emissions as specified below. Failure to initiate the corrective measures required by this paragraph is failure to ensure compliance with the emission standards in this subpart. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(vii)]
 - i. You must initiate the procedures used to determine the cause of the alarm or PMDS malfunction within 30 minutes of the time the alarm first sounds or the PMDS malfunctions; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(vii)(A)]

- ii. You must alleviate the cause of the alarm or the PMDS malfunction by taking the necessary corrective measure(s) which may include shutting down the combustor. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(vii)(B)]
 - h. If you operate the combustor when the detector response exceeds the alarm set-point or when the PMDS is malfunctioning more than 5 percent of the time during any 6-month block time period, you must submit a notification to the Administrator within 30 days of the end of the 6-month block time period that describes the causes of the exceedances and the revisions to the design, operation, or maintenance of the combustor, emission control device, or PMDS you are taking to minimize exceedances. To document compliance with this requirement: [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(viii)]
 - i. You must keep records of the date, time, and duration of each alarm and PMDS malfunction, the time corrective action was initiated and completed, and a brief description of the cause of the alarm or PMDS malfunction and the corrective action taken; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(viii)(A)]
 - ii. You must record the percent of the operating time during each 6-month period that the alarm sounds and the PMDS malfunctions; [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(viii)(B)]
 - iii. If inspection of the emission control device demonstrates that no corrective action is required, then no alarm time is counted; and [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(viii)(C)]
 - iv. If corrective action to the emission control device is required, each alarm shall be counted as a minimum of 1 hour. Each PMDS malfunction shall also be counted as a minimum of 1 hour. [Rule 19.304 and 40 C.F.R. § 63.1206(c)(9)(viii)(D)]
- EEE-68. Performance testing in accordance with the applicable requirements contained in §63.1207. [Rule 19.304 and 40 C.F.R. § 63.1207(b)]
 - a. You must conduct comprehensive performance tests to demonstrate compliance with the emission standards provided by this subpart, establish limits for the operating parameters provided by § 63.1209, and demonstrate compliance with the performance specifications for continuous monitoring systems. [Rule 19.304 and 40 C.F.R. § 63.1207(b)(1)]
 - b. You must conduct confirmatory performance tests to: [Rule 19.304 and 40 C.F.R. § 63.1207(b)(2)]
 - i. Demonstrate compliance with the dioxin/furan emission standard when the source operates under normal operating conditions; and [Rule 19.304 and 40 C.F.R. § 63.1207(b)(2)(i)]
 - ii. Conduct a performance evaluation of continuous monitoring systems required for compliance assurance with the dioxin/furan emission standard under § 63.1209(k). [Rule 19.304 and 40 C.F.R. § 63.1207(b)(2)(ii)]
- EEE-69. Except as provided by paragraphs (c)(2) and (c)(3) of §63.1207, you must commence the initial comprehensive performance test no later than six months after the

compliance date. Performance tests were conducted in February 2012 and January 2017. [Rule 19.304 and 40 C.F.R. § 63.1207(c)(1)]

- EEE-70. You may request that previous emissions test data serve as documentation of conformance with the emission standards of this subpart provided that the previous testing: [Rule 19.304 and 40 C.F.R. § 63.1207(c)(2)(i)]
- a. Was initiated after 54 months prior to the compliance date, except as provided by paragraphs (c)(2)(iii) or (c)(2)(iv) of this section; [Rule 19.304 and 40 C.F.R. § 63.1207(c)(2)(i)(A)]
 - b. Results in data that meet quality assurance objectives (determined on a site-specific basis) such that the results demonstrate compliance with the applicable standards; [Rule 19.304 and 40 C.F.R. § 63.1207(c)(2)(i)(B)]
 - c. Was in conformance with the requirements of paragraph (g)(1) of this section; and [Rule 19.304 and 40 C.F.R. § 63.1207(c)(2)(i)(C)]
 - d. Was sufficient to establish the applicable operating parameter limits under § 63.1209. [Rule 19.304 and 40 C.F.R. § 63.1207(c)(2)(i)(D)]
- EEE-71. Except as otherwise specified in paragraph (d)(4) of this section, you must conduct testing periodically as prescribed in paragraphs (d)(1) through (d)(3) of this section. The date of commencement of the initial comprehensive performance test is the basis for establishing the deadline to commence the initial confirmatory performance test and the next comprehensive performance test. You may conduct performance testing at any time prior to the required date. The deadline for commencing subsequent confirmatory and comprehensive performance testing is based on the date of commencement of the previous comprehensive performance test. Unless the Administrator grants a time extension under paragraph (i) of this section, you must conduct testing as follows: [Rule 19.304 and 40 C.F.R. § 63.1207(d)]
- a. Except as otherwise specified in paragraph (d)(4) of this section, you must commence testing no later than 61 months after the date of commencing the previous comprehensive performance test used to show compliance with § § 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, or 63.1221. If you submit data in lieu of the initial performance test, you must commence the subsequent comprehensive performance test within 61 months of commencing the test used to provide the data in lieu of the initial performance test. [Rule 19.304 and 40 C.F.R. § 63.1207(d)(1)]
 - b. Except as otherwise specified in paragraph (d)(4) of this section, you must commence confirmatory performance testing no later than 31 months after the date of commencing the previous comprehensive performance test used to show compliance with § § 63.1217, 63.1219, 63.1220, or 63.1221. If you submit data in lieu of the initial performance test, you must commence the initial confirmatory performance test within 31 months of the date six months after the compliance date. To ensure that the confirmatory test is conducted approximately midway between comprehensive performance tests, the Administrator will not approve a

- test plan that schedules testing within 18 months of commencing the previous comprehensive performance test. [Rule 19.304 and 40 C.F.R. § 63.1207(d)(2)]
- c. You must complete performance testing within 60 days after the date of commencement, unless the Administrator determines that a time extension is warranted based on your documentation in writing of factors beyond your control that prevent you from meeting the 60-day deadline. [Rule 19.304 and 40 C.F.R. § 63.1207(d)(3)]
- EEE-72. You must submit to the Administrator a notification of intent to conduct a comprehensive performance test and CMS performance evaluation and a site specific test plan and CMS performance evaluation plan at least one year before the performance test and performance evaluation are scheduled to begin. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(1)(i)]
- EEE-73. The Administrator will notify you of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within 9 months after receipt of the original plan. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(1)(i)(A)]
- EEE-74. You must submit to the Administrator a notification of intent to conduct the comprehensive performance test at least 60 calendar days before the test is scheduled to begin. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(1)(i)(B)]
- EEE-75. You must submit to the Administrator a notification of intent to conduct a confirmatory performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation plan at least 60 calendar days before the performance test is scheduled to begin. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(1)(ii)]
- EEE-76. You must make the site-specific test plan and CMS performance evaluation test plan available to the public for review no later than 60 calendar days before initiation of the test. You must issue a public notice to all persons on your facility/public mailing list (developed pursuant to 40 C.F.R. 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) announcing the availability of the test plans and the location where the test plans are available for review. The test plans must be accessible to the public for 60 calendar days, beginning on the date that you issue your public notice. The location must be unrestricted and provide access to the public during reasonable hours and provide a means for the public to obtain copies. The notification must include the following information at a minimum: [Rule 19.304 and 40 C.F.R. § 63.1207(e)(2)]
- The name and telephone number of the source's contact person; [Rule 19.304 and 40 C.F.R. § 63.1207(e)(2)(i)]
 - The name and telephone number of the regulatory agency's contact person; [Rule 19.304 and 40 C.F.R. § 63.1207(e)(2)(ii)]
 - The location where the test plans and any necessary supporting documentation can be reviewed and copied; [Rule 19.304 and 40 C.F.R. § 63.1207(e)(2)(iii)]

- d. The time period for which the test plans will be available for public review; and [Rule 19.304 and 40 C.F.R. § 63.1207(e)(2)(iv)]
- e. An expected time period for commencement and completion of the performance test and CMS performance evaluation test. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(2)(v)]

EEE-77. You may petition the Administrator under § 63.7(h) to obtain a “waiver” of any performance test—initial or periodic performance test; comprehensive or confirmatory test. The “waiver” would be implemented as an extension of time to conduct the performance test at a later date. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)]

- a. Qualifications for the waiver. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(i)]
 - i. You may not petition the Administrator for a waiver under this section if the Administrator has issued a notification of intent to deny your test plan(s) under § 63.7(c)(3)(i)(B); [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(i)(A)]
 - ii. You must submit a site-specific emissions testing plan and a continuous monitoring system performance evaluation test plan at least one year before a comprehensive performance test is scheduled to begin as required by paragraph (c)(1) of this section, or at least 60 days before a confirmatory performance test is scheduled to begin as required by paragraph (d) of this section. The test plans must include all required documentation, including the substantive content requirements of paragraph (f) of this section and § 63.8(e); and [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(i)(B)]
 - iii. You must make a good faith effort to accommodate the Administrator's comments on the test plans. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(i)(C)]
- b. Procedures for obtaining a waiver and duration of the waiver. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(ii)]
 - i. You must submit to the Administrator a waiver petition or request to renew the petition under § 63.7(h) separately for each source at least 60 days prior to the scheduled date of the performance test; [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(ii)(A)]
 - ii. The Administrator will approve or deny the petition within 30 days of receipt and notify you promptly of the decision; [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(ii)(B)]
 - iii. The Administrator will not approve an individual waiver petition for a duration exceeding 6 months; [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(ii)(C)]
 - iv. The Administrator will include a sunset provision in the waiver ending the waiver within 6 months; [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(ii)(D)]
 - v. You may submit a revised petition to renew the waiver under § 63.7(h)(3)(iii) at least 60 days prior to the end date of the most recently

- approved waiver petition; [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(ii)(E)]
- vi. The Administrator may approve a revised petition for a total waiver period up to 12 months. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(ii)(F)]
- c. Content of the waiver. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(iii)]
- i. You must provide documentation to enable the Administrator to determine that the source is meeting the relevant standard(s) on a continuous basis as required by § 63.7(h)(2). For extension requests for the initial comprehensive performance test, you must submit your Documentation of Compliance to assist the Administrator in making this determination. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(iii)(A)]
 - ii. You must include in the petition information justifying your request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test, as required by § 63.7(h)(3)(iii). [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(iii)(B)]
- d. At the same time that you submit your petition to the Administrator, you must notify the public (e.g., distribute a notice to the facility/public mailing list developed pursuant to 40 C.F.R. 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) of your petition to waive a performance test. The notification must include all of the following information at a minimum: [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(iv)]
- i. The name and telephone number of the source's contact person; [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(iv)(A)]
 - ii. The name and telephone number of the regulatory agency's contact person; [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(iv)(B)]
 - iii. The date the source submitted its site-specific performance test plan and CMS performance evaluation test plans; and [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(iv)(C)]
 - iv. The length of time requested for the waiver. [Rule 19.304 and 40 C.F.R. § 63.1207(e)(3)(iv)(D)]
- EEE-78. Content of performance test plan. The provisions of § 63.7(c)(2)(i)–(iii) and (v) regarding the content of the test plan apply. [Rule 19.304 and 40 C.F.R. § 63.1207(f)]
- EEE-79. Content of comprehensive performance test plan. [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)]
- a. An analysis of each feedstream, including hazardous waste, other fuels, and industrial furnace feedstocks, as fired, that includes: [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(i)]
 - i. Heating value, levels of ash (for hazardous waste incinerators only), levels of semivolatile metals, low volatile metals, mercury, and total chlorine (organic and inorganic); and
 - ii. Viscosity or description of the physical form of the feedstream;

- b. For organic hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) as provided by § 63.60: [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(ii)]
 - i. Except as provided by paragraph (f)(1)(ii)(D) of this section, an identification of such organic hazardous air pollutants that are present in each hazardous waste feedstream. You need not analyze for organic hazardous air pollutants that would reasonably not be expected to be found in the feedstream. You must identify any constituents you exclude from analysis and explain the basis for excluding them. You must conduct the feedstream analysis according to § 63.1208(b)(8); [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(ii)(A)]
 - ii. An approximate quantification of such identified organic hazardous air pollutants in the hazardous waste feedstreams, within the precision produced by analytical procedures of § 63.1208(b)(8); and [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(ii)(B)]
 - iii. A description of blending procedures, if applicable, prior to firing the hazardous waste feedstream, including a detailed analysis of the materials prior to blending, and blending ratios. [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(ii)(C)]
 - iv. The Administrator may approve on a case-by-case basis a hazardous waste feedstream analysis for organic hazardous air pollutants in lieu of the analysis required under paragraph (f)(1)(ii)(A) of this section if the reduced analysis is sufficient to ensure that the POHCs used to demonstrate compliance with the applicable DRE standards of this subpart continue to be representative of the most difficult to destroy organic compounds in your hazardous waste feedstreams; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(ii)(D)]
- c. A detailed engineering description of the hazardous waste combustor, including: [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(iii)]
 - i. Manufacturer's name and model number of the hazardous waste combustor; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(iii)(A)]
 - ii. Type of hazardous waste combustor; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(iii)(B)]
 - iii. Maximum design capacity in appropriate units; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(iii)(C)]
 - iv. Description of the feed system for each feedstream; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(iii)(D)]
 - v. Capacity of each feed system; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(iii)(E)]
 - vi. Description of automatic hazardous waste feed cutoff system(s); [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(iii)(F)]
 - vii. Description of the design, operation, and maintenance practices for any air pollution control system; and [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(iii)(G)]

- viii. Description of the design, operation, and maintenance practices of any stack gas monitoring and pollution control monitoring systems; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(iii)(H)]
- d. A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(iv)]
- e. A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(v)]
- f. A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the emission standards; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(vi)]
- g. A description of, and planned operating conditions for, any emission control equipment that will be used; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(vii)]
- h. Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(viii)]
- i. A determination of the hazardous waste residence time as required by § 63.1206(b)(11); [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(ix)]
- j. If you are requesting to extrapolate metal feedrate limits from comprehensive performance test levels under § 63.1209(l)(1)(v) or 63.1209(n)(2)(vii): [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(x)]
 - i. A description of the extrapolation methodology and rationale for how the approach ensures compliance with the emission standards; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(x)(A)]
 - ii. Documentation of the historical range of normal (i.e., other than during compliance testing) metals feedrates for each feedstream; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(x)(B)]
 - iii. Documentation that the level of spiking recommended during the performance test will mask sampling and analysis imprecision and inaccuracy to the extent that the extrapolated feedrate limits adequately assure compliance with the emission standards; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(x)(C)]
- k. If you do not continuously monitor regulated constituents in natural gas, process air feedstreams, and feedstreams from vapor recovery systems under § 63.1209(c)(5), you must include documentation of the expected levels of regulated constituents in those feedstreams; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xi)]
- l. Documentation justifying the duration of system conditioning required to ensure the combustor has achieved steady-state operations under performance test operating conditions, as provided by paragraph (g)(1)(iii) of this section; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xii)]

- m. For cement kilns with in-line raw mills, if you elect to use the emissions averaging provision of this subpart, you must notify the Administrator of your intent in the initial (and subsequent) comprehensive performance test plan, and provide the information required by the emission averaging provision; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xiii)]
- n. If you request to use Method 23 for dioxin/furan you must provide the information required under § 63.1208(b)(1)(i)(B); [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xv)]
- o. If you are not required to conduct performance testing to document compliance with the mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas emission standards under paragraph (m) of this section, you must include with the comprehensive performance test plan documentation of compliance with the provisions of that section. [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xvi)]
- p. If you propose to use a surrogate for measuring or monitoring gas flowrate, you must document in the comprehensive performance test plan that the surrogate adequately correlates with gas flowrate, as required by paragraph (m)(7) of this section, and § 63.1209(j)(2), (k)(3), (m)(2)(i), (n)(5)(i), and (o)(2)(i). [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xvii)]
- q. You must submit an application to request alternative monitoring under § 63.1209(g)(1) not later than with the comprehensive performance test plan, as required by § 63.1209(g)(1)(iii)(A). [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xviii)]
- r. You must document the temperature location measurement in the comprehensive performance test plan, as required by § 63.1209(j)(1)(i) and 63.1209(k)(2)(i). [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xix)]
- s. If your source is equipped with activated carbon injection, you must document in the comprehensive performance test plan: [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xx)]
 - i. The manufacturer specifications for minimum carrier fluid flowrate or pressure drop, as required by § 63.1209(k)(6)(ii); and [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xx)(A)]
 - ii. Key parameters that affect carbon adsorption, and the operating limits you establish for those parameters based on the carbon used during the performance test, if you elect not to specify and use the brand and type of carbon used during the comprehensive performance test, as required by § 63.1209(k)(6)(iii). [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xx)(B)]
- t. If you feed a dioxin/furan inhibitor into the combustion system, you must document in the comprehensive performance test plan key parameters that affect the effectiveness of the inhibitor, and the operating limits you establish for those parameters based on the inhibitor fed during the performance test, if you elect not to specify and use the brand and type of inhibitor used during the comprehensive performance test, as required by § 63.1209(k)(9)(ii). [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xxii)]

- u. For purposes of calculating semivolatile metal, low volatile metal, mercury, and total chlorine (organic and inorganic), and ash feedrate limits, a description of how you will handle performance test feedstream analytical results that determines these constituents are not present at detectable levels. [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xxvi)]
- v. Such other information as the Administrator reasonably finds necessary to determine whether to approve the performance test plan. [Rule 19.304 and 40 C.F.R. § 63.1207(f)(1)(xxvii)]

- EEE-80. Content of confirmatory test plan. [Rule 19.304 and 40 C.F.R. § 63.1207(f)(2)]
- a. A description of your normal hydrocarbon or carbon monoxide operating levels, as specified in paragraph (g)(2)(i) of this section, and an explanation of how these normal levels were determined; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(2)(i)]
 - b. A description of your normal applicable operating parameter levels, as specified in paragraph (g)(2)(ii) of this section, and an explanation of how these normal levels were determined; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(2)(ii)]
 - c. A description of your normal chlorine operating levels, as specified in paragraph (g)(2)(iii) of this section, and an explanation of how these normal levels were determined; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(2)(iii)]
 - d. A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(2)(v)]
 - e. A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(2)(vi)]
 - f. A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the dioxin/furan emission standard; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(2)(vii)]
 - g. A description of, and planned operating conditions for, any emission control equipment that will be used; [Rule 19.304 and 40 C.F.R. § 63.1207(f)(2)(viii)]
 - h. Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction; and [Rule 19.304 and 40 C.F.R. § 63.1207(f)(2)(ix)]
 - i. Such other information as the Administrator reasonably finds necessary to determine whether to approve the confirmatory test plan. [Rule 19.304 and 40 C.F.R. § 63.1207(f)(2)(x)]
- EEE-81. You must comply with the provisions of § 63.7(e). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirement of § 63.7(e)(1) to conduct performance testing under representative operating conditions. [Rule 19.304 and 40 C.F.R. § 63.1207(g)]

- EEE-82. Comprehensive performance testing. [Rule 19.304 and 40 C.F.R. § 63.1207(g)(1)]
- a. For the following parameters, you must operate the combustor during the performance test under normal conditions (or conditions that will result in higher than normal emissions): [Rule 19.304 and 40 C.F.R. § 63.1207(g)(1)(i)]
 - i. You must feed normal (or higher) levels of chlorine during the dioxin/furan performance test; [Rule 19.304 and 40 C.F.R. § 63.1207(g)(1)(i)(A)]
 - ii. You must conduct the following tests when the particulate matter control device undergoes its normal (or more frequent) cleaning cycle: The particulate matter, semivolatile metal, and low volatile metal performance tests; and the dioxin/furan and mercury performance tests if activated carbon injection or a carbon bed is used. [Rule 19.304 and 40 C.F.R. § 63.1207(g)(1)(i)(C)]
 - b. Given that you must establish limits for the applicable operating parameters specified in § 63.1209 based on operations during the comprehensive performance test, you may conduct testing under two or more operating modes to provide operating flexibility. [Rule 19.304 and 40 C.F.R. § 63.1207(g)(1)(ii)]
 - c. Steady-state conditions. [Rule 19.304 and 40 C.F.R. § 63.1207(g)(1)(iii)]
 - i. Prior to obtaining performance test data, you must operate under performance test conditions until you reach steady-state operations with respect to emissions of pollutants you must measure during the performance test and operating parameters under § 63.1209 for which you must establish limits. During system conditioning, you must ensure that each operating parameter for which you must establish a limit is held at the level planned for the performance test. You must include documentation in the performance test plan under paragraph (f) of this section justifying the duration of system conditioning. [Rule 19.304 and 40 C.F.R. § 63.1207(g)(1)(iii)(A)]
- EEE-83. Confirmatory performance testing. You must conduct confirmatory performance testing for dioxin/furan under normal operating conditions for the following parameters: [Rule 19.304 and 40 C.F.R. § 63.1207(g)(2)]
- a. Carbon monoxide (or hydrocarbon) CEMS emissions levels must be within the range of the average value to the maximum value allowed, except as provided by paragraph (g)(2)(v) of this section. The average value is defined as the sum of the hourly rolling average values recorded (each minute) over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste; [Rule 19.304 and 40 C.F.R. § 63.1207(g)(2)(i)]
 - b. Each operating limit (specified in § 63.1209) established to maintain compliance with the dioxin/furan emission standard must be held within the range of the average value over the previous 12 months and the maximum or minimum, as appropriate, that is allowed, except as provided by paragraph (g)(2)(v) of this section. The average value is defined as the sum of the rolling average values

recorded over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste; [Rule 19.304 and 40 C.F.R. § 63.1207(g)(2)(ii)]

- c. You must feed chlorine at normal feedrates or greater; and [Rule 19.304 and 40 C.F.R. § 63.1207(g)(2)(iii)]
- d. The Administrator may approve an alternative range to that required by paragraphs (g)(2)(i) and (ii) of this section if you document in the confirmatory performance test plan that it may be problematic to maintain the required range during the test. In addition, when making the finding of compliance, the Administrator may consider test conditions outside of the range specified in the test plan based on a finding that you could not reasonably maintain the range specified in the test plan and considering factors including whether the time duration and level of the parameter when operations were out of the specified range were such that operations during the confirmatory test are determined to be reasonably representative of normal operations. In addition, the Administrator will consider the proximity of the emission test results to the standard. [Rule 19.304 and 40 C.F.R. § 63.1207(g)(2)(v)]

EEE-84. Operating conditions during subsequent testing. [Rule 19.304 and 40 C.F.R. § 63.1207(h)]

- a. Current operating parameter limits established under § 63.1209 are waived during subsequent comprehensive performance testing. [Rule 19.304 and 40 C.F.R. § 63.1207(h)(1)]
- b. Current operating parameter limits are also waived during pretesting prior to comprehensive performance testing for an aggregate time not to exceed 720 hours of operation (renewable at the discretion of the Administrator) under an approved test plan or if the source records the results of the pretesting. Pretesting means:
 - i. Operations when stack emissions testing for dioxin/furan, mercury, semivolatile metals, low volatile metals, particulate matter, or hydrogen chloride/chlorine gas is being performed; and [Rule 19.304 and 40 C.F.R. § 63.1207(h)(2)(i)]
 - ii. Operations to reach steady-state operating conditions prior to stack emissions testing under paragraph (g)(1)(iii) of this section. [Rule 19.304 and 40 C.F.R. § 63.1207(h)(2)(ii)]

EEE-85. Time extension for subsequent performance tests. After the initial comprehensive performance test, you may request up to a one-year time extension for conducting a comprehensive or confirmatory performance test to consolidate performance testing with other state or federally required emission testing, or for other reasons deemed acceptable by the Administrator. If the Administrator grants a time extension for a comprehensive performance test, the deadlines for commencing the next comprehensive and confirmatory tests are based on the date that the subject comprehensive performance test commences. [Rule 19.304 and 40 C.F.R. § 63.1207(i)]

- a. You must submit in writing to the Administrator any request under this paragraph for a time extension for conducting a performance test. [Rule 19.304 and 40 C.F.R. § 63.1207(i)(1)]
 - b. You must include in the request for an extension for conducting a performance test the following: [Rule 19.304 and 40 C.F.R. § 63.1207(i)(2)]
 - i. A description of the reasons for requesting the time extension; [Rule 19.304 and 40 C.F.R. § 63.1207(i)(2)(i)]
 - ii. The date by which you will commence performance testing. [Rule 19.304 and 40 C.F.R. § 63.1207(i)(2)(ii)]
 - c. The Administrator will notify you in writing of approval or intention to deny approval of your request for an extension for conducting a performance test within 30 calendar days after receipt of sufficient information to evaluate your request. The 30-day approval or denial period will begin after you have been notified in writing that your application is complete. The Administrator will notify you in writing whether the application contains sufficient information to make a determination within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that you submit. [Rule 19.304 and 40 C.F.R. § 63.1207(i)(2)]
 - d. When notifying you that your application is not complete, the Administrator will specify the information needed to complete the application. The Administrator will also provide notice of opportunity for you to present, in writing, within 30 calendar days after notification of the incomplete application, additional information or arguments to the Administrator to enable further action on the application. [Rule 19.304 and 40 C.F.R. § 63.1207(i)(4)]
 - e. Before denying any request for an extension for performance testing, the Administrator will notify you in writing of the Administrator's intention to issue the denial, together with: [Rule 19.304 and 40 C.F.R. § 63.1207(i)(5)]
 - i. Notice of the information and findings on which the intended denial is based; and [Rule 19.304 and 40 C.F.R. § 63.1207(i)(5)(i)]
 - ii. Notice of opportunity for you to present in writing, within 15 calendar days after notification of the intended denial, additional information or arguments to the Administrator before further action on the request. [Rule 19.304 and 40 C.F.R. § 63.1207(i)(5)(ii)]
 - f. The Administrator's final determination to deny any request for an extension will be in writing and will set forth specific grounds upon which the denial is based. The final determination will be made within 30 calendar days after the presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made. [Rule 19.304 and 40 C.F.R. § 63.1207(i)(6)]
- EEE-86. Notification of compliance. [Rule 19.304 and 40 C.F.R. § 63.1207(j)]
- a. Comprehensive performance test. [Rule 19.304 and 40 C.F.R. § 63.1207(j)(1)]
 - i. Except as provided by paragraphs (j)(4) and (j)(5) of this section, within 90 days of completion of a comprehensive performance test, you must

- postmark a Notification of Compliance documenting compliance with the emission standards and continuous monitoring system requirements, and identifying operating parameter limits under § 63.1209. [Rule 19.304 and 40 C.F.R. § 63.1207(j)(1)(i)]
- ii. Upon postmark of the Notification of Compliance, you must comply with all operating requirements specified in the Notification of Compliance in lieu of the limits specified in the Documentation of Compliance required under § 63.1211(c). [Rule 19.304 and 40 C.F.R. § 63.1207(j)(1)(ii)]
- b. Confirmatory performance test. Except as provided by paragraph (j)(4) of this section, within 90 days of completion of a confirmatory performance test, you must postmark a Notification of Compliance documenting compliance or noncompliance with the applicable dioxin/furan emission standard. [Rule 19.304 and 40 C.F.R. § 63.1207(j)(2)]
- c. See §§ 63.7(g), 63.9(h), and 63.1210(d) for additional requirements pertaining to the Notification of Compliance (e.g., you must include results of performance tests in the Notification of Compliance). [Rule 19.304 and 40 C.F.R. § 63.1207(j)(3)]
- d. You may submit a written request to the Administrator for a time extension documenting that, for reasons beyond your control, you may not be able to meet the 90-day deadline for submitting the Notification of Compliance after completion of testing. The Administrator will determine whether a time extension is warranted. [Rule 19.304 and 40 C.F.R. § 63.1207(j)(4)]
- EEE-87. Failure to submit a timely notification of compliance. [Rule 19.304 and 40 C.F.R. § 63.1207(k)]
- a. If you fail to postmark a Notification of Compliance by the specified date, you must cease hazardous waste burning immediately. [Rule 19.304 and 40 C.F.R. § 63.1207(k)(1)]
- b. Prior to submitting a revised Notification of Compliance as provided by paragraph (k)(3) of this section, you may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing and only for a maximum of 720 hours (renewable at the discretion of the Administrator). [Rule 19.304 and 40 C.F.R. § 63.1207(k)(2)]
- c. You must submit to the Administrator a Notification of Compliance subsequent to a new comprehensive performance test before resuming hazardous waste burning. [Rule 19.304 and 40 C.F.R. § 63.1207(k)(3)]
- EEE-88. Failure of performance test. [Rule 19.304 and 40 C.F.R. § 63.1207(l)]
- a. The provisions of this paragraph do not apply to the initial comprehensive performance test if you conduct the test prior to your compliance date. [Rule 19.304 and 40 C.F.R. § 63.1207(l)(1)]
- i. If you determine (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that you have exceeded any emission standard during a comprehensive performance test for a mode of operation, you must cease hazardous waste burning

- immediately under that mode of operation. You must make this determination within 90 days following completion of the performance test. [Rule 19.304 and 40 C.F.R. § 63.1207(l)(1)(i)]
- ii. If you have failed to demonstrate compliance with the emission standards for any mode of operation: [Rule 19.304 and 40 C.F.R. § 63.1207(l)(1)(ii)]
 - 1. Prior to submitting a revised Notification of Compliance as provided by paragraph (l)(1)(ii)(C) of this section, you may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing under revised operating conditions, and only for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by paragraph (l)(3) of this section; [Rule 19.304 and 40 C.F.R. § 63.1207(l)(1)(ii)(A)]
 - 2. You must conduct a comprehensive performance test under revised operating conditions following the requirements for performance testing of this section; and [Rule 19.304 and 40 C.F.R. § 63.1207(l)(1)(ii)(B)]
 - 3. You must submit to the Administrator a Notification of Compliance subsequent to the new comprehensive performance test. [Rule 19.304 and 40 C.F.R. § 63.1207(l)(1)(ii)(C)]
 - b. If you determine (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that you have failed the dioxin/furan emission standard during a confirmatory performance test, you must cease burning hazardous waste immediately. You must make this determination within 90 days following completion of the performance test. To burn hazardous waste in the future: [Rule 19.304 and 40 C.F.R. § 63.1207(l)(2)]
 - i. You must submit to the Administrator for review and approval a test plan to conduct a comprehensive performance test to identify revised limits on the applicable dioxin/furan operating parameters specified in § 63.1209(k); [Rule 19.304 and 40 C.F.R. § 63.1207(l)(2)(i)]
 - ii. You must submit to the Administrator a Notification of Compliance with the dioxin/furan emission standard under the provisions of paragraphs (j) and (k) of this section and this paragraph (l). You must include in the Notification of Compliance the revised limits on the applicable dioxin/furan operating parameters specified in § 63.1209(k); and [Rule 19.304 and 40 C.F.R. § 63.1207(l)(2)(ii)]
 - iii. Until the Notification of Compliance is submitted, you must not burn hazardous waste except for purposes of pretesting or confirmatory performance testing, and for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by paragraph (l)(3) of this section. [Rule 19.304 and 40 C.F.R. § 63.1207(l)(2)(iii)]
 - c. You may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. You must specify operating requirements, including limits on operating parameters, that you determine will ensure

compliance with the emission standards of this subpart based on available information including data from the failed performance test. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements. An approval of interim operating requirements will include a schedule for submitting a Notification of Compliance. [Rule 19.304 and 40 C.F.R. § 63.1207(l)(3)]

- EEE-89. Waiver of performance test. You are not required to conduct performance tests to document compliance with the mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas emission standards under the conditions specified in paragraphs (m)(1) or (m)(2) of this section. The waiver provisions of this paragraph apply in addition to the provisions of § 63.7(h). [Rule 19.304 and 40 C.F.R. § 63.1207(m)]
- a. Emission standards based on exhaust gas flow rate. [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)]
 - i. You are deemed to be in compliance with an emission standard based on the volumetric flow rate of exhaust gas (i.e., $\mu\text{g/dscm}$ or ppmv) if the maximum theoretical emission concentration (MTEC) does not exceed the emission standard over the relevant averaging period specified under § 63.1209(l), (n), and (o) of this section for the standard: [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)(i)]
 1. Determine the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride from all feedstreams; [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)(i)(A)]
 2. Determine the stack gas flowrate; and [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)(i)(B)]
 3. Calculate a MTEC for each standard assuming all mercury, semivolatile metals, low volatile metals, or total chlorine (organic and inorganic) from all feedstreams is emitted; [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)(i)(C)]
 - ii. To document compliance with this provision, you must: [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)(ii)]
 1. Monitor and record the feedrate of mercury, semivolatile metals, low volatile metals, and total chlorine and chloride from all feedstreams according to § 63.1209(c); [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)(ii)(A)]
 2. Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate); [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)(ii)(B)]
 3. Continuously calculate and record in the operating record the MTEC under the procedures of paragraph (m)(1)(i) of this section; and [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)(ii)(C)]
 4. Interlock the MTEC calculated in paragraph (m)(1)(i)(C) of this section to the AWFCO system to stop hazardous waste burning

- when the MTEC exceeds the emission standard. [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)(ii)(D)]
- iii. In lieu of the requirement in paragraphs (m)(1)(ii)(C) and (D) of this section, you may: [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)(iii)]
1. Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride from all feedstreams that ensures the MTEC as calculated in paragraph (m)(1)(i)(C) of this section is below the applicable emission standard; and [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)(iii)(A)]
 2. Interlock the minimum gas flowrate limit and maximum feedrate limit of paragraph (m)(1)(iii)(A) of this section to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride feedrate exceeds the limits of paragraph (m)(1)(iii)(A) of this section. [Rule 19.304 and 40 C.F.R. § 63.1207(m)(1)(iii)(B)]
- b. Emission standards based on hazardous waste thermal concentration. [Rule 19.304 and 40 C.F.R. § 63.1207(m)(2)]
- i. You are deemed to be in compliance with an emission standard specified on a hazardous waste thermal concentration basis (i.e., pounds emitted per million Btu of heat input) if the HAP thermal concentration in the waste feed does not exceed the allowable HAP thermal concentration emission rate. [Rule 19.304 and 40 C.F.R. § 63.1207(m)(2)(i)]
 - ii. To document compliance with this provision, you must: [Rule 19.304 and 40 C.F.R. § 63.1207(m)(2)(ii)]
 1. Monitor and record the feedrate of mercury, semivolatile metals, low volatile metals, and total chlorine and chloride from all hazardous waste feedstreams in accordance with § 63.1209(c); [Rule 19.304 and 40 C.F.R. § 63.1207(m)(2)(ii)(A)]
 2. Determine and record the higher heating value of each hazardous waste feed; [Rule 19.304 and 40 C.F.R. § 63.1207(m)(2)(ii)(B)]
 3. Continuously calculate and record the thermal feed rate of all hazardous waste feedstreams by summing the products of each hazardous waste feed rate multiplied by the higher heating value of that hazardous waste; [Rule 19.304 and 40 C.F.R. § 63.1207(m)(2)(ii)(C)]
 4. Continuously calculate and record the total HAP thermal feed concentration for each constituent by dividing the HAP feedrate determined in paragraph (m)(2)(ii)(A) of this section by the thermal feed rate determined in paragraph (m)(2)(ii)(C) of this section for all hazardous waste feedstreams; [Rule 19.304 and 40 C.F.R. § 63.1207(m)(2)(ii)(D)]
 5. Interlock the HAP thermal feed concentration for each constituent with the AWFCO to stop hazardous waste feed when the thermal

feed concentration exceeds the applicable thermal emission standard. [Rule 19.304 and 40 C.F.R. § 63.1207(m)(2)(ii)(E)]

- c. When you determine the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride for purposes of this provision, except as provided by paragraph (m)(4) of this section, you must assume that the analyte is present at the full detection limit when the feedstream analysis determines that the analyte is not detected in the feedstream. [Rule 19.304 and 40 C.F.R. § 63.1207(m)(3)]
- d. Owners and operators of hazardous waste burning cement kilns and lightweight aggregate kilns may assume that mercury is present in raw material at half the detection limit when the raw material feedstream analysis determines that mercury is not detected. [Rule 19.304 and 40 C.F.R. § 63.1207(m)(4)]
- e. You must state in the site-specific test plan that you submit for review and approval under paragraph (e) of this section that you intend to comply with the provisions of this paragraph. You must include in the test plan documentation that any surrogate that is proposed for gas flowrate adequately correlates with the gas flowrate. [Rule 19.304 and 40 C.F.R. § 63.1207(m)(5)]

EEE-90. Test methods. Dioxins and furans. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(1)]

- a. To determine compliance with the emission standard for dioxins and furans, you must use: [Rule 19.304 and 40 C.F.R. § 63.1208(b)(1)(i)]
 - i. Method 0023A, Sampling Method for Polychlorinated Dibenzo- p-Dioxins and Polychlorinated Dibenzofurans emissions from Stationary Sources, EPA Publication SW-846 (incorporated by reference—see § 63.14); or [Rule 19.304 and 40 C.F.R. § 63.1208(b)(1)(i)(A)]
 - ii. Method 23, provided in appendix A, part 60 of this chapter, after approval by the Administrator. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(1)(i)(B)]
 - 1. You may request approval to use Method 23 in the performance test plan required under § 63.1207(e)(i) and (ii). [Rule 19.304 and 40 C.F.R. § 63.1208(b)(1)(i)(B)(1)]
 - 2. In determining whether to grant approval to use Method 23, the Administrator may consider factors including whether dioxin/furan were detected at levels substantially below the emission standard in previous testing, and whether previous Method 0023 analyses detected low levels of dioxin/furan in the front half of the sampling train. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(1)(i)(B)(2)]
- b. You must sample for a minimum of three hours, and you must collect a minimum sample volume of 2.5 dscm; [Rule 19.304 and 40 C.F.R. § 63.1208(b)(1)(ii)]
- c. You may assume that nondetects are present at zero concentration. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(1)(iii)]

EEE-91. Test methods. Mercury. You must use Method 29, provided in appendix A, part 60 of this chapter, to demonstrate compliance with emission standard for mercury. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(2)]

- EEE-92. Test methods. Cadmium. You must use Method 29, provided in appendix A, part 60 of this chapter, to determine compliance with the emission standard for cadmium and lead (combined). [Rule 19.304 and 40 C.F.R. § 63.1208(b)(3)]
- EEE-93. Test methods. Arsenic, beryllium, and chromium. You must use Method 29, provided in appendix A, part 60 of this chapter, to determine compliance with the emission standard for arsenic, beryllium, and chromium (combined). [Rule 19.304 and 40 C.F.R. § 63.1208(b)(4)]
- EEE-94. Test methods. Hydrogen chloride and chlorine gas. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)]
- a. Compliance with MACT standards. To determine compliance with the emission standard for hydrogen chloride and chlorine gas (combined), you must use: [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)(i)]
- i. Method 26/26A as provided in appendix A, part 60 of this chapter; or [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)(i)(A)]
 - ii. Methods 320 or 321 as provided in appendix A, part 63 of this chapter, or [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)(i)(B)]
 - iii. ASTM D 6735–01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method to measure emissions of hydrogen chloride, and Method 26/26A to measure emissions of chlorine gas, provided that you follow the provisions in paragraphs (b)(5)(C)(1) through (6) of this section. ASTM D 6735–01 is available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428–2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)(i)(C)]
1. A test must include three or more runs in which a pair of samples is obtained simultaneously for each run according to section 11.2.6 of ASTM Method D6735–01. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)(i)(C)(1)]
 2. You must calculate the test run standard deviation of each set of paired samples to quantify data precision, according to Equation 1 of this section: [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)(i)(C)(2)]
- Where:
- RSDa= The test run relative standard deviation of sample pair a, percent.
- C1a and C2a= The HCl concentrations, milligram/dry standard cubic meter (mg/dscm), from the paired samples.
3. You must calculate the test average relative standard deviation according to Equation 2 of this section: [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)(i)(C)(3)]

Where:

RSDTA= The test average relative standard deviation, percent.

RSDa= The test run relative standard deviation for sample pair a.

p = The number of test runs, ≥ 3 .

4. If RSDTA is greater than 20 percent, the data are invalid and the test must be repeated. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)(i)(C)(4)]
 5. The post-test analyte spike procedure of section 11.2.7 of ASTM Method D6735–01 is conducted, and the percent recovery is calculated according to section 12.6 of ASTM Method D6735–01. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)(i)(C)(5)]
 6. If the percent recovery is between 70 percent and 130 percent, inclusive, the test is valid. If the percent recovery is outside of this range, the data are considered invalid, and the test must be repeated. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)(i)(C)(6)]
- b. Compliance with risk-based limits under § 63.1215.
- To demonstrate compliance with emission limits established under § 63.1215, you must use Method 26/26A as provided in appendix A, part 60 of this chapter, Method 320 as provided in appendix A, part 63 of this chapter, Method 321 as provided in appendix A, part 63 of this chapter, or ASTM D 6735–01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method (following the provisions of paragraphs (b)(5)(C)(1) through (6) of this section), except: [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)(ii)]
- i. For cement kilns and sources equipped with a dry acid gas scrubber, you must use Methods 320 or 321 as provided in appendix A, part 63 of this chapter, or ASTM D 6735–01 to measure hydrogen chloride, and the back-half, caustic impingers of Method 26/26A as provided in appendix A, part 60 of this chapter to measure chlorine gas; and [Rule 19.304 and 40 C.F.R. § 63.1208(b)(5)(ii)(A)]

- EEE-95. Test methods. Particulate matter. You must use Methods 5 or 5I, provided in appendix A, part 60 of this chapter, to demonstrate compliance with the emission standard for particulate matter.. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(6)]
- EEE-96. Other test methods. You may use applicable test methods in EPA Publication SW-846, as incorporated by reference in paragraph (a) of this section, as necessary to demonstrate compliance with requirements of this subpart, except as otherwise specified in paragraphs (b)(2)–(b)(6) of this section. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(7)]
- EEE-97. Feedstream analytical methods. You may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is your responsibility to ensure that the sampling and analysis procedures are unbiased,

precise, and that the results are representative of the feedstream. [Rule 19.304 and 40 C.F.R. § 63.1208(b)(8)]

- EEE-98. You must use either a carbon monoxide or hydrocarbon CEMS to demonstrate and monitor compliance with the carbon monoxide and hydrocarbon standards under 40 C.F.R. Part 63, Subpart EEE. You must also use an oxygen CEMS to continuously correct the carbon monoxide or hydrocarbon levels to 7 percent oxygen. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(1)(i)]
- EEE-99. You must install, calibrate, maintain, and operate a particulate matter CEMS to demonstrate and monitor compliance with the particulate matter standards under 40 C.F.R. Part 63, Subpart EEE. However, compliance with the requirements in §63.1209 to install, calibrate, maintain, and operate the PM CEMS is not required until such time that the Agency promulgates all performance specifications and operational requirements applicable to PM CEMS. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(1)(iii)]
- EEE-100. You must install, calibrate, maintain, and continuously operate the COMS and CEMS in compliance with the quality assurance procedures provided in the appendix to 40 C.F.R. Part 63, Subpart EEE and Performance Specifications 1 (opacity), 4B (carbon monoxide and oxygen), and 8A (hydrocarbons) in Appendix B, Part 60 of Chapter I. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(2)]
- EEE-101. Carbon Monoxide readings exceeding the span. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(3)]
- a. Except as provided by paragraph (a)(3)(ii) of this section, if a carbon monoxide CEMS detects a response that results in a one-minute average at or above the 3,000 ppmv span level required by Performance Specification 4B in appendix B, part 60 of this chapter, the one-minute average must be recorded as 10,000 ppmv. The one-minute 10,000 ppmv value must be used for calculating the hourly rolling average carbon monoxide level. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(3)(i)]
 - b. Carbon monoxide CEMS that use a span value of 10,000 ppmv when one-minute carbon monoxide levels are equal to or exceed 3,000 ppmv are not subject to paragraph (a)(3)(i) of this section. Carbon monoxide CEMS that use a span value of 10,000 are subject to the same CEMS performance and equipment specifications when operating in the range of 3,000 ppmv to 10,000 ppmv that are provided by Performance Specification 4B for other carbon monoxide CEMS, except: [Rule 19.304 and 40 C.F.R. § 63.1209(a)(3)(ii)]
 - i. Calibration drift must be less than 300 ppmv; and [Rule 19.304 and 40 C.F.R. § 63.1209(a)(3)(ii)(A)]
 - ii. Calibration error must be less than 500 ppmv. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(3)(ii)(B)]

- EEE-102. Hydrocarbon readings exceeding the span. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(4)]
- a. Except as provided by paragraph (a)(4)(ii) of this section, if a hydrocarbon CEMS detects a response that results in a one-minute average at or above the 100 ppmv span level required by Performance Specification 8A in appendix B, part 60 of this chapter, the one-minute average must be recorded as 500 ppmv. The one-minute 500 ppmv value must be used for calculating the hourly rolling average HC level. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(4)(i)]
 - b. Hydrocarbon CEMS that use a span value of 500 ppmv when one-minute hydrocarbon levels are equal to or exceed 100 ppmv are not subject to paragraph (a)(4)(i) of this section. Hydrocarbon CEMS that use a span value of 500 ppmv are subject to the same CEMS performance and equipment specifications when operating in the range of 100 ppmv to 500 ppmv that are provided by Performance Specification 8A for other hydrocarbon CEMS, except: [Rule 19.304 and 40 C.F.R. § 63.1209(a)(4)(ii)]
 - i. The zero and high-level calibration gas must have a hydrocarbon level of between 0 and 100 ppmv, and between 250 and 450 ppmv, respectively; [Rule 19.304 and 40 C.F.R. § 63.1209(a)(4)(ii)(A)]
 - ii. The strip chart recorder, computer, or digital recorder must be capable of recording all readings within the CEM measurement range and must have a resolution of 2.5 ppmv; [Rule 19.304 and 40 C.F.R. § 63.1209(a)(4)(ii)(B)]
 - iii. The CEMS calibration must not differ by more than ± 15 ppmv after each 24-hour period of the seven day test at both zero and high levels; [Rule 19.304 and 40 C.F.R. § 63.1209(a)(4)(ii)(C)]
 - iv. The calibration error must be no greater than 25 ppmv; and [Rule 19.304 and 40 C.F.R. § 63.1209(a)(4)(ii)(D)]
 - v. The zero level, mid-level, and high level calibration gas used to determine calibration error must have a hydrocarbon level of 0–200 ppmv, 150–200 ppmv, and 350–400 ppmv, respectively. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(4)(ii)(E)]
- EEE-103. Calculation of rolling averages. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(6)]
- a. Calculation of rolling averages upon intermittent operations. You must ignore periods of time when one-minute values are not available for calculating the hourly rolling average. When one-minute values become available again, the first one-minute value is added to the previous 59 values to calculate the hourly rolling average. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(6)(ii)]
 - b. Calculation of rolling averages when the hazardous waste feed is cutoff. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(6)(iii)]
 - i. Except as provided by paragraph (a)(6)(iii)(B) of this section, you must continue monitoring carbon monoxide and hydrocarbons when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if the emission levels exceed the standard. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(6)(iii)(A)]

- ii. You are not subject to the CEMS requirements of this subpart during periods of time you meet the requirements of § 63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste). [Rule 19.304 and 40 C.F.R. § 63.1209(a)(6)(iii)(B)]

EEE-104. If you elect to comply with the carbon monoxide and hydrocarbon emission standard by continuously monitoring carbon monoxide with a CEMS, you must demonstrate that hydrocarbon emissions during the comprehensive performance test do not exceed the hydrocarbon emissions standard. In addition, the limits you establish on the destruction and removal efficiency (DRE) operating parameters required under paragraph (j) of §63.1209 also ensure that you maintain compliance with the hydrocarbon emission standard. If you do not conduct the hydrocarbon demonstration and DRE tests concurrently, you must establish separate operating parameter limits under paragraph (j) of §63.1209 based on each test and the more restrictive of the operating parameter limits applies. [Rule 19.304 and 40 C.F.R. § 63.1209(a)(7)]

EEE-105. Other continuous monitoring systems (CMS). [Rule 19.304 and 40 C.F.R. § 63.1209(b)]

- a. You must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under this section. [Rule 19.304 and 40 C.F.R. § 63.1209(b)(1)]
- b. Except as specified in paragraphs (b)(2)(i) and (ii) of this section, you must install and operate continuous monitoring systems other than CEMS in conformance with § 63.8(c)(3) that requires you, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system: [Rule 19.304 and 40 C.F.R. § 63.1209(b)(2)]
 - i. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. You must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. You must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. And, [Rule 19.304 and 40 C.F.R. § 63.1209(b)(2)(i)]
- c. CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds. [Rule 19.304 and 40 C.F.R. § 63.1209(b)(3)]
- d. The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the automatic waste feed cutoff system required by § 63.1206(c)(3). [Rule 19.304 and 40 C.F.R. § 63.1209(b)(4)]
- e. Calculation of rolling average [Rule 19.304 and 40 C.F.R. § 63.1209(b)(5)]

- i. You must ignore periods of time when one-minute values are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages. [Rule 19.304 and 40 C.F.R. § 63.1209(b)(5)(ii)]
 - ii. Calculation of rolling averages when the hazardous waste feed is cutoff. [Rule 19.304 and 40 C.F.R. § 63.1209(b)(5)(iii)]
 1. Except as provided by paragraph (b)(5)(iii)(B) of this section, you must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit. [Rule 19.304 and 40 C.F.R. § 63.1209(b)(5)(iii)(A)]
 2. You are not subject to the CMS requirements of this subpart during periods of time you meet the requirements of § 63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste). [Rule 19.304 and 40 C.F.R. § 63.1209(b)(5)(iii)(B)]
- EEE-106. Prior to feeding the material, you must obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feedrate limits provided in §63.1209. [Rule 19.304 and 40 C.F.R. § 63.1209(c)(1)]
- EEE-107. You must develop and implement a feedstream analysis plan and record it in the operating record. The plan must specify at a minimum: [Rule 19.304 and 40 C.F.R. § 63.1209(c)(2)]
- a. The parameters for which you will analyze each feedstream to ensure compliance with the operating parameter limits of this section; [Rule 19.304 and 40 C.F.R. § 63.1209(c)(2)(i)]
 - b. Whether you will obtain the analysis by performing sampling and analysis or by other methods, such as using analytical information obtained from others or using other published or documented data or information; [Rule 19.304 and 40 C.F.R. § 63.1209(c)(2)(ii)]
 - c. How you will use the analysis to document compliance with applicable feedrate limits (e.g., if you blend hazardous wastes and obtain analyses of the wastes prior to blending but not of the blended, as-fired, waste, the plan must describe how you will determine the pertinent parameters of the blended waste); [Rule 19.304 and 40 C.F.R. § 63.1209(c)(2)(iii)]
 - d. The test methods which you will use to obtain the analyses; [Rule 19.304 and 40 C.F.R. § 63.1209(c)(2)(iv)]
 - e. The sampling method which you will use to obtain a representative sample of each feedstream to be analyzed using sampling methods described in appendix IX, part 266 of this chapter, or an equivalent method; and [Rule 19.304 and 40 C.F.R. § 63.1209(c)(2)(v)]

- f. The frequency with which you will review or repeat the initial analysis of the feedstream to ensure that the analysis is accurate and up to date. [Rule 19.304 and 40 C.F.R. § 63.1209(c)(2)(vi)]
- EEE-108. You must submit the feedstream analysis plan to the Administrator for review and approval, if requested. [Rule 19.304 and 40 C.F.R. § 63.1209(c)(3)]
- EEE-109. To comply with the applicable feedrate limits of §63.1209, you must monitor and record the feedrates as follows: [Rule 19.304 and 40 C.F.R. § 63.1209(c)(4)]
 - a. Determine and record the value of the parameter for each feedstream by sampling and analysis or other method; [Rule 19.304 and 40 C.F.R. § 63.1209(c)(4)(i)]
 - b. Determine and record the mass or volume flowrate of each feedstream by a CMS. If you determine flowrate of a feedstream by volume, you must determine and record the density of the feedstream by sampling and analysis (unless you report the constituent concentration in units of weight per volume); and [Rule 19.304 and 40 C.F.R. § 63.1209(c)(4)(ii)]
 - c. Calculate and record the mass feedrate of the parameter per unit time. [Rule 19.304 and 40 C.F.R. § 63.1209(c)(4)(iii)]
- EEE-110. You are not required to monitor levels of metals or chlorine in the following feedstreams to document compliance with the feedrate limits under this section provided that you document in the comprehensive performance test plan the expected levels of the constituent in the feedstream and account for those assumed feedrate levels in documenting compliance with feedrate limits: natural gas, process air, and feedstreams from vapor recovery systems. [Rule 19.304 and 40 C.F.R. § 63.1209(c)(5)]
- EEE-111. The requirements of §§63.8(d) (Quality control program) and (e) (Performance evaluation of continuous monitoring systems) apply, except that you must conduct performance evaluations components of the CMS under the frequency and procedures (for example, submittal of performance evaluation test plan for review and approval) applicable to performance tests as provided by §63.1207. [Rule 19.304 and 40 C.F.R. § 63.1209(d)(1)]
- EEE-112. You must comply with the quality assurance procedures for CEMS prescribed in the appendix to 40 C.F.R. Part 63, Subpart EEE. [Rule 19.304 and 40 C.F.R. § 63.1209(d)(2)]
- EEE-113. Conduct of monitoring. The provisions of § 63.8(b) apply. [Rule 19.304 and 40 C.F.R. § 63.1209(e)]
- EEE-114. Operation and maintenance of continuous monitoring systems. The provisions of § 63.8(c) apply except: [Rule 19.304 and 40 C.F.R. § 63.1209(f)]

- a. The requirements of § 63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of section 63.8(c)(3); [Rule 19.304 and 40 C.F.R. § 63.1209(f)(1)]
- b. The performance specifications for carbon monoxide, hydrocarbon, and oxygen CEMSs in subpart B, part 60 of this chapter that requires detectors to measure the sample concentration at least once every 15 seconds for calculating an average emission rate once every 60 seconds shall be complied with instead of section 63.8(c)(4)(ii); [Rule 19.304 and 40 C.F.R. § 63.1209(f)(2)]

EEE-115. Alternative monitoring requirements other than continuous emissions monitoring systems (CEMS)— [Rule 19.304 and 40 C.F.R. § 63.1209(g)]

- a. Requests to use alternatives to operating parameter monitoring requirements. [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)]
 - i. You may submit an application to the Administrator under this paragraph for approval of alternative operating parameter monitoring requirements to document compliance with the emission standards of this subpart. For requests to use additional CEMS, however, you must use paragraph (a)(5) of this section and § 63.8(f). Alternative requests to operating parameter monitoring requirements that include unproven monitoring methods may not be made under this paragraph and must be made under § 63.8(f). [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)(i)]
 - ii. You may submit an application to waive an operating parameter limit specified in this section based on documentation that neither that operating parameter limit nor an alternative operating parameter limit is needed to ensure compliance with the emission standards of this subpart. [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)(ii)]
 - iii. You must comply with the following procedures for applications submitted under paragraphs (g)(1)(i) and (ii) of this section: [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)(iii)]
 1. You must submit the application to the Administrator not later than with the comprehensive performance test plan. [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)(iii)(A)]
 2. You must include in the application: [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)(iii)(B)]
 - a. Data or information justifying your request for an alternative monitoring requirement (or for a waiver of an operating parameter limit), such as the technical or economic infeasibility or the impracticality of using the required approach; [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)(iii)(B)(1)]
 - b. A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach/technique (e.g., type of detector, monitoring location), the averaging period for the

- limit, and how the limit is to be calculated; and [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)(iii)(B)(2)]
- c. Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard, or that it is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable. [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)(iii)(B)(3)]
3. The Administrator will notify you of approval or intention to deny approval of the request within 90 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplementary information that you submit. The Administrator will not approve an alternative monitoring request unless the alternative monitoring requirement provides equivalent or better assurance of compliance with the relevant emission standard, or is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable. Before disapproving any request, the Administrator will notify you of the Administrator's intention to disapprove the request together with: [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)(iii)(C)]
- a. Notice of the information and findings on which the intended disapproval is based; and [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)(iii)(C)(1)]
- b. Notice of opportunity for you to present additional information to the Administrator before final action on the request. At the time the Administrator notifies you of intention to disapprove the request, the Administrator will specify how much time you will have after being notified of the intended disapproval to submit the additional information. [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)(iii)(C)(2)]
4. You are responsible for ensuring that you submit any supplementary and additional information supporting your application in a timely manner to enable the Administrator to consider your application during review of the comprehensive performance test plan. Neither your submittal of an application, nor the Administrator's failure to approve or disapprove the application, relieves you of the responsibility to comply with the provisions of this subpart. [Rule 19.304 and 40 C.F.R. § 63.1209(g)(1)(iii)(D)]
- b. The Administrator may determine on a case-by-case basis at any time (e.g., during review of the comprehensive performance test plan, during compliance certification review) that you may need to limit additional or alternative operating parameters (e.g., opacity in addition to or in lieu of operating parameter limits on

the particulate matter control device) or that alternative approaches to establish limits on operating parameters may be necessary to document compliance with the emission standards of this subpart. [Rule 19.304 and 40 C.F.R. § 63.1209(g)(2)]

EEE-116. Reduction of monitoring data. The provisions of § 63.8(g) apply. [Rule 19.304 and 40 C.F.R. § 63.1209(h)]

EEE-117. Paragraphs (j) through (p) of this section require you to establish limits on operating parameters based on comprehensive performance testing to ensure you maintain compliance with the emission standards of this subpart. For several parameters, you must establish a limit for the parameter to ensure compliance with more than one emission standard. An example is a limit on minimum combustion chamber temperature to ensure compliance with both the DRE standard of paragraph (j) of this section and the dioxin/furan standard of paragraph (k) of this section. If the performance tests for such standards are not performed simultaneously, the most stringent limit for a parameter derived from independent performance tests applies. [Rule 19.304 and 40 C.F.R. § 63.1209(i)]

EEE-118. To remain in compliance with the destruction and removal efficiency (DRE) standards, you must establish operating limits during the comprehensive performance test (or during a previous DRE test under provisions of §63.1206(b)(7)) for the following parameters, unless the limits are based on manufacturer specifications and comply with those limits at all times that hazardous waste remains in the combustion chamber (i.e., the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated). [Rule 19.304 and 40 C.F.R. § 63.1209(j)]

- a. Minimum combustion chamber temperature. [Rule 19.304 and 40 C.F.R. § 63.1209(j)(1)]
 - i. You must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. You must document the temperature measurement location in the test plan you submit under § 63.1207(e); [Rule 19.304 and 40 C.F.R. § 63.1209(j)(1)(i)]
 - ii. You must establish a minimum hourly rolling average limit as the average of the test run averages; [Rule 19.304 and 40 C.F.R. § 63.1209(j)(1)(ii)]
- b. Maximum flue gas flowrate or production rate. [Rule 19.304 and 40 C.F.R. § 63.1209(j)(2)]
 - i. As an indicator of gas residence time in the control device, you must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [Rule 19.304 and 40 C.F.R. § 63.1209(j)(2)(i)]

- ii. You must comply with this limit on an hourly rolling average basis; [Rule 19.304 and 40 C.F.R. § 63.1209(j)(2)(ii)]
 - c. Maximum hazardous waste feedrate. [Rule 19.304 and 40 C.F.R. § 63.1209(j)(3)]
 - i. You must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where hazardous waste is fed. [Rule 19.304 and 40 C.F.R. § 63.1209(j)(3)(i)]
 - ii. You must establish the limits as the average of the maximum hourly rolling averages for each run. [Rule 19.304 and 40 C.F.R. § 63.1209(j)(3)(ii)]
 - iii. You must comply with the feedrate limit(s) on an hourly rolling average basis; [Rule 19.304 and 40 C.F.R. § 63.1209(j)(3)(iii)]
 - d. You must specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained. [Rule 19.304 and 40 C.F.R. § 63.1209(j)(4)]
- EEE-119. You must comply with the dioxin and furans emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [Rule 19.304 and 40 C.F.R. § 63.1209(k)]
- EEE-120. Gas temperature at the inlet to a dry particulate matter control device. [Rule 19.304 and 40 C.F.R. § 63.1209(k)(1)]
 - a. For sources other than a lightweight aggregate kiln, if the combustor is equipped with an electrostatic precipitator, baghouse (fabric filter), or other dry emissions control device where particulate matter is suspended in contact with combustion gas, you must establish a limit on the maximum temperature of the gas at the inlet to the device on an hourly rolling average. You must establish the hourly rolling average limit as the average of the test run averages. [Rule 19.304 and 40 C.F.R. § 63.1209(k)(1)(i)]
- EEE-121. Minimum combustion chamber temperature. [Rule 19.304 and 40 C.F.R. § 63.1209(k)(2)]
 - a. You must establish a minimum hourly rolling average limit as the average of the test run averages. [Rule 19.304 and 40 C.F.R. § 63.1209(k)(2)(ii)]
- EEE-122. Maximum flue gas flowrate or production rate. [Rule 19.304 and 40 C.F.R. § 63.1209(k)(3)]
 - a. As an indicator of gas residence time in the control device, you must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [Rule 19.304 and 40 C.F.R. § 63.1209(k)(3)(i)]

- b. You must comply with this limit on an hourly rolling average basis; [Rule 19.304 and 40 C.F.R. § 63.1209(k)(3)(ii)]
- EEE-123. Maximum hazardous waste feedrate. [Rule 19.304 and 40 C.F.R. § 63.1209(k)(4)]
- a. You must establish limits on the maximum pumpable and total (pumpable and nonpumpable) hazardous waste feedrate for each location where waste is fed. [Rule 19.304 and 40 C.F.R. § 63.1209(k)(4)(i)]
 - b. You must establish the limits as the average of the maximum hourly rolling averages for each run. [Rule 19.304 and 40 C.F.R. § 63.1209(k)(4)(ii)]
 - c. You must comply with the feedrate limit(s) on an hourly rolling average basis; [Rule 19.304 and 40 C.F.R. § 63.1209(k)(4)(iii)]
- EEE-124. You must comply with the mercury emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications.. [Rule 19.304 and 40 C.F.R. § 63.1209(l)]
- EEE-125. When complying with the emission standards under §63.1220(a)(2)(i) and (b)(2)(i), you must: [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(A)]
- a. Comply with the mercury hazardous waste feed concentration operating requirement on a twelve-hour rolling average; [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(A)(1)]
 - b. Monitor and record in the operating record the as-fired mercury concentration in the hazardous waste (or the weighted-average mercury concentration for multiple hazardous waste feedstreams); and [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(A)(2)]
 - c. Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when the as-fired mercury concentration operating requirement is exceeded. [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(A)(3)]
- EEE-126. When complying with the emissions standards under § 63.1204 and 63.1220(a)(2)(ii)(A) and (b)(2)(ii)(A), you must establish a 12-hour rolling average limit for the feedrate of mercury in all feedstreams as the average of the test run averages. [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(B)]
- EEE-127. Except as provided by paragraph (l)(1)(iii)(D) of 63.1209, when complying with the hazardous waste maximum theoretical emission concentration (MTEC) under §63.1220(a)(2)(ii)(B) and (b)(2)(ii)(B), you must: [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(C)]
- a. Comply with the MTEC operating requirement on a twelve-hour rolling average; [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(C)(1)]
 - b. Monitor and record the feedrate of mercury for each hazardous waste feedstream according to § 63.1209(c); [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(C)(2)]

- c. Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate); [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(C)(3)]
- d. Continuously calculate and record in the operating record a MTEC assuming mercury from all hazardous waste feedstreams is emitted; and [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(C)(4)]
- e. Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when the MTEC operating requirement is exceeded. [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(C)(5)]

EEE-128. In lieu of complying with paragraph (l)(1)(iii)(C) of §63.1209, you may: [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(D)]

- a. Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury from all hazardous waste feedstreams that ensures the MTEC calculated in paragraph (l)(1)(iii)(C)(4) of §63.1209 is below the operating requirement under paragraphs § § 63.1220(a)(2)(ii)(B) and (b)(2)(ii)(B); and [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(D)(1)]
- b. Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when either the gas flowrate or mercury feedrate exceeds the limits identified in paragraph (l)(1)(iii)(D)(1) of §63.1209. [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(iii)(D)(2)]

EEE-129. In lieu of establishing mercury feedrate limits as specified in paragraphs (l)(1)(i) through (iv) of this section, you may request as part of the performance test plan under § § 63.7(b) and (c) and § § 63.1207 (e) and (f) to use the mercury feedrates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether: [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(v)]

- a. Performance test metal feedrates are appropriate (i.e., whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(v)(A)]
- b. Whether the extrapolated feedrates you request are warranted considering historical metal feedrate data. [Rule 19.304 and 40 C.F.R. § 63.1209(l)(1)(v)(B)]

EEE-130. You must comply with the particulate matter emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [Rule 19.304 and 40 C.F.R. § 63.1209(m)]

EEE-131. Maximum flue gas flowrate or production rate. [Rule 19.304 and 40 C.F.R. § 63.1209(m)(2)]

- a. As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. You comply with this limit on an hourly rolling average basis. [Rule 19.304 and 40 C.F.R. § 63.1209(m)(2)(i)]
 - b. You must comply with this limit on an hourly rolling average basis; [Rule 19.304 and 40 C.F.R. § 63.1209(m)(2)(ii)]
- EEE-132. You must comply with the semivolatile metal (cadmium and lead) and low volatile metal (arsenic, beryllium, and chromium) emission standards by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [Rule 19.304 and 40 C.F.R. § 63.1209(n)]
- EEE-133. You must establish a limit on the maximum inlet temperature to the primary dry metals emissions control device on an hourly rolling basis as the average of the test run averages. [Rule 19.304 and 40 C.F.R. § 63.1209(n)(1)]
- EEE-134. Maximum feedrate of semivolatile and low volatile metals [Rule 19.304 and 40 C.F.R. § 63.1209(n)(2)]
 - a. You must establish feedrate limits for semivolatile metals (cadmium and lead) and low volatile metals (arsenic, beryllium, and chromium) as follows, except as provided by paragraph (n)(2)(vii) of this section. [Rule 19.304 and 40 C.F.R. § 63.1209(n)(2)(i)]
 - b. For incinerators, cement kilns, and lightweight aggregate kilns, when complying with the emission standards under § 63.1203, 63.1204, 63.1205, and 63.1219, and for solid fuel boilers when complying with the emission standards under § 63.1216, you must establish 12-hour rolling average limits for the total feedrate of semivolatile and low volatile metals in all feedstreams as the average of the test run averages. [Rule 19.304 and 40 C.F.R. § 63.1209(n)(2)(ii)]
- EEE-135. When complying with the emission standards under §63.1220(a)(3)(i), (a)(4)(i), (b)(3)(i), and (b)(4)(i), you must establish 12-hour rolling average feedrate limits for semivolatile and low volatile metals as the thermal concentration of semivolatile metals or low volatile metals in all hazardous waste feedstreams. You must calculate hazardous waste thermal concentrations for semivolatile metals and low volatile metals for each run as the total mass feedrate of semivolatile metals or low volatile metals for all hazardous waste feedstreams divided by the total heat input rate for all hazardous waste feedstreams. The 12-hour rolling average feedrate limits for semivolatile metals and low volatile metals are the average of the test run averages, calculated on a thermal concentration basis, for all hazardous waste feeds. [Rule 19.304 and 40 C.F.R. § 63.1209(n)(2)(iii)(A)]

- EEE-136. When complying with the emission standards under §63.1220(a)(3)(ii), (a)(4)(ii), (b)(3)(ii), and (b)(4)(ii), you must establish 12-hour rolling average limits for the total feedrate of semivolatile and low volatile metals in all feedstreams as the average of the test run averages. [Rule 19.304 and 40 C.F.R. § 63.1209(n)(2)(iii)(B)]
- EEE-137. You must establish separate feedrate limits for low volatile metals in pumpable feedstreams using the procedures prescribed above for total low volatile metals. Dual feedrate limits for both pumpable and total feedstreams are not required, however, if you base the total feedrate limit solely on the feedrate of pumpable feedstreams. [Rule 19.304 and 40 C.F.R. § 63.1209(n)(2)(vi)]
- EEE-138. In lieu of establishing feedrate limits as specified in paragraphs (n)(2)(ii) through (vi) of §63.1209, you may request as part of the performance test plan under §63.7(b) and (c) and §63.1207(e) and (f) to use the semivolatile metal and low volatile metal feedrates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether: [Rule 19.304 and 40 C.F.R. § 63.1209(n)(2)(vii)]
- a. Performance test metal feedrates are appropriate (*i.e.*, whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and [Rule 19.304 and 40 C.F.R. § 63.1209(n)(2)(vii)(A)]
 - b. Whether the extrapolated feedrates you request are warranted considering historical metal feedrate data. [Rule 19.304 and 40 C.F.R. § 63.1209(n)(2)(vii)(B)]
- EEE-139. You must establish operating parameter limits on the particulate matter control device as specified by paragraph §63.1209(m)(1). [Rule 19.304 and 40 C.F.R. § 63.1209(n)(3)]
- EEE-140. You must establish a 12-hour rolling average limit for the feedrate of total chlorine and chloride in all feedstreams as the average of the test run averages. [Rule 19.304 and 40 C.F.R. § 63.1209(n)(4)]
- EEE-141. Maximum flue gas flowrate or production rate. [Rule 19.304 and 40 C.F.R. § 63.1209(n)(5)]
- a. As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [Rule 19.304 and 40 C.F.R. § 63.1209(n)(5)(i)]

- b. You must comply with this limit on an hourly rolling average basis. [Rule 19.304 and 40 C.F.R. § 63.1209(n)(5)(ii)]
- EEE-142. You must comply with the hydrogen chloride and chlorine gas emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [Rule 19.304 and 40 C.F.R. § 63.1209(o)]
- EEE-143. You must establish a 12-hour rolling average limit for the total feedrate of chlorine (organic and inorganic) in all feedstreams as the average of the test run averages. [Rule 19.304 and 40 C.F.R. § 63.1209(o)(1)(i)]
- EEE-144. Maximum flue gas flowrate or production rate. [Rule 19.304 and 40 C.F.R. § 63.1209(o)(2)]
 - a. As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [Rule 19.304 and 40 C.F.R. § 63.1209(o)(2)(i)]
 - b. You must comply with this limit on an hourly rolling average basis. [Rule 19.304 and 40 C.F.R. § 63.1209(o)(2)(ii)]
- EEE-145. If you comply with the requirements for combustion system leaks under §63.1206(c)(5) by maintaining combustion chamber zone pressure lower than ambient pressure, you must monitor the pressure instantaneously and the automatic waste feed cutoff system must be engaged when negative pressure is not adequately maintained. [Rule 19.304 and 40 C.F.R. § 63.1209(p)]
- EEE-146. If you operate under different modes of operation, you must establish operating parameter limits for each mode. You must document in the operating record when you change a mode of operation and begin complying with the operating limits for an alternative mode of operation.. [Rule 19.304 and 40 C.F.R. § 63.1209(q)]
 - a. As provided by § 63.1206(b)(1)(ii), you may operate under otherwise applicable requirements promulgated under sections 112 and 129 of the Clean Air Act in lieu of the substantive requirements of this subpart. [Rule 19.304 and 40 C.F.R. § 63.1209(q)(1)]
 - i. The otherwise applicable requirements promulgated under sections 112 and 129 of the Clean Air Act are applicable requirements under this subpart. [Rule 19.304 and 40 C.F.R. § 63.1209(q)(1)(i)]
 - ii. You must specify (e.g., by reference) the otherwise applicable requirements as a mode of operation in your Documentation of Compliance under § 63.1211(c), your Notification of Compliance under § 63.1207(j), and your title V permit application. These requirements include the otherwise applicable requirements governing emission

standards, monitoring and compliance, and notification, reporting, and recordkeeping. [Rule 19.304 and 40 C.F.R. § 63.1209(q)(1)(ii)]

- b. When you transition to a different mode of operation, you must calculate rolling averages as follows: [Rule 19.304 and 40 C.F.R. § 63.1209(q)(2)]
 - i. Calculate rolling averages anew using the continuous monitoring system values previously recorded for that mode of operation (i.e., you ignore continuous monitoring system values subsequently recorded under other modes of operation when you transition back to a mode of operation); or [Rule 19.304 and 40 C.F.R. § 63.1209(q)(2)(i)]
 - ii. Calculate rolling averages anew without considering previous recordings. [Rule 19.304 and 40 C.F.R. § 63.1209(q)(2)(ii)]
 1. Rolling averages must be calculated as the average of the available one-minute values for the parameter until enough one-minute values are available to calculate hourly or 12-hour rolling averages, whichever is applicable to the parameter. [Rule 19.304 and 40 C.F.R. § 63.1209(q)(2)(ii)(A)]
 2. You may not transition to a new mode of operation using this approach if the most recent operation in that mode resulted in an exceedance of an applicable emission standard measured with a CEMS or operating parameter limit prior to the hazardous waste residence time expiring; or [Rule 19.304 and 40 C.F.R. § 63.1209(q)(2)(ii)(B)]
 - iii. Continue calculating rolling averages using data from the previous operating mode provided that both the operating limit and the averaging period for the parameter are the same for both modes of operation. [Rule 19.304 and 40 C.F.R. § 63.1209(q)(2)(iii)]

EEE-147. The averaging periods specified in section §63.1209 for operating parameters are not-to-exceed averaging periods. You may elect to use shorter averaging periods. For example, you may elect to use a 1-hour rolling average rather than the 12-hour rolling average specified in paragraph (1)(1)(i) of section §63.1209 for mercury. [Rule 19.304 and 40 C.F.R. § 63.1209(r)]

EEE-148. You must submit the following notifications prior to the Administrator: [Rule 19.304 and 40 C.F.R. § 63.1210(a)(1)]

- a. Initial notifications that you are subject to Subpart EEE of this Part.
- b. Notification that you are subject to special compliance requirements.
- c. Notification and documentation of any change in information already provided under § 63.9.
- d. Notification of changes in design, operation, or maintenance.
- e. Notification of excessive bag leak detection system exceedances.
- f. Notification of excessive particulate matter detection system exceedances.
- g. Notification of performance test and continuous monitoring system evaluation, including the performance test plan and CMS performance evaluation plan.

- i. You may also be required on a case-by-case basis to submit a feedstream analysis plan under § 63.1209(c)(3).
 - h. Notification of intent to comply.
 - i. Notification of compliance, including results of performance tests and continuous monitoring system performance evaluations.
- EEE-149. You must submit the following notifications to the Administrator if you request or elect to comply with alternative requirements: [Rule 19.304 and 40 C.F.R. § 63.1210(a)(2)]
 - a. You may request an adjustment to time periods or postmark deadlines for submittal and review of required information.
 - b. You may request to reduce the frequency of excess emissions and CMS performance reports.
 - c. You may request to waive recordkeeping or reporting requirements.
 - d. Notification that you elect to comply with the emission averaging requirements for cement kilns with in-line raw mills.
 - e. Notification that you elect to comply with the emission averaging requirements for preheater or preheater/precalciner kilns with dual stacks.
 - f. You may request an extension of the compliance date for up to one year.
 - g. You may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting after making a change in the design or operation that could affect compliance with emission standards and prior to submitting a revised Notification of Compliance.
 - h. You may request approval to have the particulate matter and opacity standards and associated operating limits and conditions waived for more than 96 hours for a correlation test.
 - i. Owners and operators of cement kilns may request approval of alternative emission standards for mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas under certain conditions.
 - j. You may request to make changes to the startup, shutdown, and malfunction plan.
 - k. You may request an alternative means of control to provide control of combustion system leaks.
 - l. You may request other techniques to prevent fugitive emissions without use of instantaneous pressure limits.
 - m. You may request to base initial compliance on data in lieu of a comprehensive performance test.
 - n. You may request more than 60 days to complete a performance test if additional time is needed for reasons beyond your control.
 - o. You may request a time extension if the Administrator fails to approve or deny your test plan.
 - p. You may request to waive current operating parameter limits during pretesting for more than 720 hours.
 - q. You may request a reduced hazardous waste feedstream analysis for organic hazardous air pollutants if the reduced analysis continues to be representative of organic hazardous air pollutants in your hazardous waste feedstreams.

- r. You may request to operate under a wider operating range for a parameter during confirmatory performance testing.
- s. You may request up to a one-year time extension for conducting a performance test (other than the initial comprehensive performance test) to consolidate testing with other state or federally-required testing.
- t. You may request more than 90 days to submit a Notification of Compliance after completing a performance test if additional time is needed for reasons beyond your control.
- u. After failure of a performance test, you may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting.
- v. You may request: (1) Approval of alternative monitoring methods for compliance with standards that are monitored with a CEMS; and (2) approval to use a CEMS in lieu of operating parameter limits.
- w. You may request approval of: (1) Alternatives to operating parameter monitoring requirements, except for standards that you must monitor with a continuous emission monitoring system (CEMS) and except for requests to use a CEMS in lieu of operating parameter limits; or (2) a waiver of an operating parameter limit.
- x. You may request to extrapolate mercury feedrate limits.
- y. You may request to extrapolate semivolatile and low volatile metal feedrate limits.
- z. You may request to use data compression techniques to record data on a less frequent basis than required by § 63.1209.

EEE-150. Notification of compliance. [Rule 19.304 and 40 C.F.R. § 63.1210(d)]

- a. The Notification of Compliance status requirements of § 63.9(h) apply, except that: [Rule 19.304 and 40 C.F.R. § 63.1210(d)(1)]
 - i. The notification is a Notification of Compliance, rather than compliance status; [Rule 19.304 and 40 C.F.R. § 63.1210(d)(1)(i)]
 - ii. The notification is required for the initial comprehensive performance test and each subsequent comprehensive and confirmatory performance test; and [Rule 19.304 and 40 C.F.R. § 63.1210(d)(1)(ii)]
 - iii. You must postmark the notification before the close of business on the 90th day following completion of relevant compliance demonstration activity specified in this subpart rather than the 60th day as required by § 63.9(h)(2)(ii). [Rule 19.304 and 40 C.F.R. § 63.1210(d)(1)(iii)]
- b. Upon postmark of the Notification of Compliance, the operating parameter limits identified in the Notification of Compliance, as applicable, shall be complied with, the limits identified in the Documentation of Compliance or a previous Notification of Compliance are no longer applicable. [Rule 19.304 and 40 C.F.R. § 63.1210(d)(2)]
- c. The Notification of Compliance requirements of § 63.1207(j) also apply. [Rule 19.304 and 40 C.F.R. § 63.1210(d)(3)]

EEE-151. Summary of reporting requirements. You must submit the following reports to the Administrator: [Rule 19.304 and 40 C.F.R. § 63.1211(a)]

- a. Compliance progress reports, if required as a condition of an extension of the compliance date granted under § 63.6(i).
- b. Periodic startup, shutdown, and malfunction reports.
- c. Immediate startup, shutdown, and malfunction reports.
- d. Excessive emissions and continuous monitoring system performance report and summary report.
- e. Startup, shutdown, and malfunction plan.
- f. Excessive exceedances reports.
- g. Emergency safety vent opening reports.

EEE-152. Summary of recordkeeping requirements. You must retain the following in the operating record: [Rule 19.304 and 40 C.F.R. § 63.1211(b)]

- a. General. Information required to document and maintain compliance with the regulations of Subpart EEE, including data recorded by continuous monitoring systems (CMS), and copies of all notifications, reports, plans, and other documents submitted to the Administrator.
- b. Documentation of mode of operation changes for cement kilns with in-line raw mills.
- c. Documentation of compliance with the emission averaging requirements for cement kilns with in-line raw mills.
- d. Documentation that a change will not adversely affect compliance with the emission standards or operating requirements.
- e. Calculation of hazardous waste residence time.
- f. Startup, shutdown, and malfunction plan.
- g. Documentation of your investigation and evaluation of excessive exceedances during malfunctions.
- h. Corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit.
- i. Documentation and results of the automatic waste feed cutoff operability testing.
- j. Emergency safety vent operating plan.
- k. Corrective measures for any emergency safety vent opening.
- l. Method used for control of combustion system leaks.
- m. Operator training and certification program.
- n. Operation and maintenance plan.
- o. Feedstream analysis plan.

EEE-153. Documentation of compliance. [Rule 19.304 and 40 C.F.R. § 63.1211(c)]

- a. The Documentation of Compliance must identify the applicable emission standards under this subpart and the limits on the operating parameters under § 63.1209 that will ensure compliance with those emission standards. [Rule 19.304 and 40 C.F.R. § 63.1211(c)(2)]
- b. You must include a signed and dated certification in the Documentation of Compliance that: [Rule 19.304 and 40 C.F.R. § 63.1211(c)(3)]

- i. Required CEMs and CMS are installed, calibrated, and continuously operating in compliance with the requirements of this subpart; and [Rule 19.304 and 40 C.F.R. § 63.1211(c)(3)(i)]
- ii. Based on an engineering evaluation prepared under your direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation, and considering at a minimum the design, operation, and maintenance characteristics of the combustor and emissions control equipment, the types, quantities, and characteristics of feedstreams, and available emissions data: [Rule 19.304 and 40 C.F.R. § 63.1211(c)(3)(ii)]
 - 1. You are in compliance with the emission standards of this subpart; and [Rule 19.304 and 40 C.F.R. § 63.1211(c)(3)(ii)(A)]
 - 2. The limits on the operating parameters under § 63.1209 ensure compliance with the emission standards of this subpart. [Rule 19.304 and 40 C.F.R. § 63.1211(c)(3)(ii)(B)]
- c. You must comply with the emission standards and operating parameter limits specified in the Documentation of Compliance. [Rule 19.304 and 40 C.F.R. § 63.1211(c)(4)]

EEE-154. You may submit a written request to the Administrator for approval to use data compression techniques to record data from CMS, including CEMS, on a frequency less than that required by § 63.1209. You must submit the request for review and approval as part of the comprehensive performance test plan. [Rule 19.304 and 40 C.F.R. § 63.1211(d)]

- a. You must record a data value at least once each ten minutes. [Rule 19.304 and 40 C.F.R. § 63.1211(d)(1)]
- b. For each CEMS or operating parameter for which you request to use data compression techniques, you must recommend: [Rule 19.304 and 40 C.F.R. § 63.1211(d)(2)]
 - i. A fluctuation limit that defines the maximum permissible deviation of a new data value from a previously generated value without requiring you to revert to recording each one-minute value. [Rule 19.304 and 40 C.F.R. § 63.1211(d)(2)(i)]
 - 1. If you exceed a fluctuation limit, you must record each one-minute value for a period of time not less than ten minutes. [Rule 19.304 and 40 C.F.R. § 63.1211(d)(2)(i)(A)]
 - 2. If neither the fluctuation limit nor the data compression limit are exceeded during that period of time, you may reinitiate recording data values on a frequency of at least once each ten minutes; and [Rule 19.304 and 40 C.F.R. § 63.1211(d)(2)(i)(B)]
 - ii. A data compression limit defined as the closest level to an operating parameter limit or emission standard at which reduced data recording is allowed. [Rule 19.304 and 40 C.F.R. § 63.1211(d)(2)(ii)]

1. Within this level and the operating parameter limit or emission standard, you must record each one-minute average. [Rule 19.304 and 40 C.F.R. § 63.1211(d)(2)(ii)(A)]
2. The data compression limit should reflect a level at which you are unlikely to exceed the specific operating parameter limit or emission standard, considering its averaging period, with the addition of a new one-minute average. [Rule 19.304 and 40 C.F.R. § 63.1211(d)(2)(ii)(B)]

EEE-155. You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain: [Rule 19.304 and 40 C.F.R. § 63.1220(b)]

- a. For dioxins and furans: [Rule 19.304 and 40 C.F.R. § 63.1220(b)(1)]
 - i. Emissions in excess of 0.20 ng TEQ/dscm, corrected to 7 percent oxygen; or [Rule 19.304 and 40 C.F.R. § 63.1220(b)(1)(i)]
 - ii. Emissions in excess of 0.40 ng TEQ/dscm, corrected to 7 percent oxygen, provided that the combustion gas temperature at the inlet to the initial dry particulate matter control device is 400 °F or lower based on the average of the test run average temperatures; [Rule 19.304 and 40 C.F.R. § 63.1220(b)(1)(ii)]
- b. For Mercury, both: [Rule 19.304 and 40 C.F.R. § 63.1220(b)(2)]
 - i. An average as-fired concentration of mercury in all hazardous waste feedstreams in excess of 1.9 parts per million by weight; and [Rule 19.304 and 40 C.F.R. § 63.1220(b)(2)(i)]
 - ii. Either: [Rule 19.304 and 40 C.F.R. § 63.1220(b)(2)(ii)]
 1. Emissions in excess of 120 µg/dscm, corrected to 7 percent oxygen; or [Rule 19.304 and 40 C.F.R. § 63.1220(b)(2)(ii)(A)]
 2. A hazardous waste feed maximum theoretical emission concentration (MTEC) in excess of 120 µg/dscm; [Rule 19.304 and 40 C.F.R. § 63.1220(b)(2)(ii)(B)]
- c. For Cadmium and lead, both: [Rule 19.304 and 40 C.F.R. § 63.1220(b)(3)]
 - i. Emissions in excess of 6.2×10^{-5} lbs combined emissions of cadmium and lead attributable to the hazardous waste per million Btu heat input from the hazardous waste; and [Rule 19.304 and 40 C.F.R. § 63.1220(b)(3)(i)]
 - ii. Emissions in excess of 180 µgm/dscm, combined emissions, corrected to 7 percent oxygen; [Rule 19.304 and 40 C.F.R. § 63.1220(b)(3)(ii)]
- d. For Arsenic, beryllium, and chromium, both: [Rule 19.304 and 40 C.F.R. § 63.1220(b)(4)]
 - i. Emissions in excess of 1.5×10^{-5} lbs combined emissions of arsenic, beryllium, and chromium attributable to the hazardous waste per million Btu heat input from the hazardous waste; and [Rule 19.304 and 40 C.F.R. § 63.1220(b)(4)(i)]
 - ii. Emissions in excess of 54 µgm/dscm, combined emissions, corrected to 7 percent oxygen; [Rule 19.304 and 40 C.F.R. § 63.1220(b)(4)(ii)]

- e. For Carbon monoxide and hydrocarbons.: [Rule 19.304 and 40 C.F.R. § 63.1220(b)(5)]
 - i. For kilns equipped with a by-pass duct or midkiln gas sampling system, carbon monoxide and hydrocarbons emissions are limited in both the bypass duct or midkiln gas sampling system and the main stack as follows: [Rule 19.304 and 40 C.F.R. § 63.1220(b)(5)(i)]
 - 1. Emissions in the by-pass or midkiln gas sampling system are limited to either: [Rule 19.304 and 40 C.F.R. § 63.1220(b)(5)(i)(A)]
 - a. Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (b)(5)(i)(A)(2) of this section, you also must document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or [Rule 19.304 and 40 C.F.R. § 63.1220(b)(5)(i)(A)(1)]
 - b. Hydrocarbons in the by-pass duct or midkiln gas sampling system in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; and [Rule 19.304 and 40 C.F.R. § 63.1220(b)(5)(i)(A)(2)]
 - 2. Hydrocarbons in the main stack are limited, if construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, to 50 parts per million by volume, over a 30-day block average (monitored continuously with a continuous monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; [Rule 19.304 and 40 C.F.R. § 63.1220(b)(5)(i)(B)]
- f. Hydrogen chloride and chlorine gas in excess of 86 parts per million by volume, combined emissions, expressed as a chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen; and [Rule 19.304 and 40 C.F.R. § 63.1220(b)(6)]
- g. For particulate matter, both: [Rule 19.304 and 40 C.F.R. § 63.1220(b)(7)]
 - i. Emissions in excess of 0.0069 gr/dscf corrected to 7 percent oxygen; and [Rule 19.304 and 40 C.F.R. § 63.1220(b)(7)(i)]
 - ii. Opacity greater than 20 percent, unless your source is equipped with a bag leak detection system under §63.1206(c)(8) or a particulate matter

detection system under §63.1206(c)(9). [Rule 19.304 and 40 C.F.R. § 63.1220(b)(7)(ii)]

EEE-156. Except as provided in Specific Condition EEE-157, you must achieve a destruction and removal efficiency (DRE) of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (c)(3) of §63.1220. You must calculate DRE for each POHC from the following equation: [Rule 19.304 and 40 C.F.R. § 63.1220(c)(1)]

$$\text{DRE} = [1 - (W_{\text{out}} / W_{\text{in}})] \times 100\%$$

Where:

W_{in} = mass feedrate of one POHC in a waste feedstream; and
 W_{out} = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

EEE-157. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see 40 C.F.R. Part, §261.31), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of §63.1220. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo- p-dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of §63.1220 to calculate DRE for each POHC. In addition, you must notify the Administrator of the intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027. [Rule 19.304 and 40 C.F.R. § 63.1220(c)(2)]

EEE-158. You must treat each POHC in the waste feed that you specify under paragraph (c)(3)(ii) of §63.1220 to the extent required by paragraphs (c)(1) and (c)(2) of §63.1220. [Rule 19.304 and 40 C.F.R. § 63.1220(c)(3)(i)]

EEE-159. You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information. [Rule 19.304 and 40 C.F.R. § 63.1220(c)(3)(ii)]

EEE-160. Cement kilns with in-line kiln raw mills. [Rule 19.304 and 40 C.F.R. § 63.1220(d)]

- You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate operating parameter limits under § 63.1209 for each mode of operation, except as provided by paragraphs (d)(1)(iv) and (d)(1)(v) of this section. [Rule 19.304 and 40 C.F.R. § 63.1220(d)(1)(i)]
- You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the operating

parameter limits for that alternate mode of operation. [Rule 19.304 and 40 C.F.R. § 63.1220(d)(1)(ii)]

- c. You must calculate rolling averages for operating parameter limits as provided by § 63.1209(q)(2). [Rule 19.304 and 40 C.F.R. § 63.1220(d)(1)(iii)]
- d. In lieu of conducting a performance test to demonstrate compliance with the dioxin/furan emission standards for the mode of operation when the raw mill is on-line, you may specify in the performance test workplan and Notification of Compliance the same operating parameter limits required under § 63.1209(k) for the mode of operation when the raw mill is on-line as you establish during performance testing for the mode of operation when the raw mill is off-line. [Rule 19.304 and 40 C.F.R. § 63.1220(d)(1)(v)]

EEE-161. You may comply with the mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas emission standards on a time-weighted average basis under the following procedures: [Rule 19.304 and 40 C.F.R. § 63.1220(d)(2)]

- a. You must calculate the time-weighted average emission concentration with the following equation: [Rule 19.304 and 40 C.F.R. § 63.1220(d)(2)(i)]

$C_{total} = \{C_{mill-off} \times (T_{mill-off} / (T_{mill-off} + T_{mill-on}))\} + \{C_{mill-on} \times (T_{mill-on} / (T_{mill-off} + T_{mill-on}))\}$

Where:

C_{total} = time-weighted average concentration of a regulated constituent considering both raw mill on time and off time;

$C_{mill-off}$ = average performance test concentration of regulated constituent with the raw mill off-line;

$C_{mill-on}$ = average performance test concentration of regulated constituent with the raw mill on-line;

$T_{mill-off}$ = time when kiln gases are not routed through the raw mill; and

$T_{mill-on}$ = time when kiln gases are routed through the raw mill.

- b. Compliance. [Rule 19.304 and 40 C.F.R. § 63.1220(d)(2)(ii)]

- i. If you use this emission averaging provision, you must document in the operating record compliance with the emission standards on an annual basis by using the equation provided by paragraph (d)(2) of this section. [Rule 19.304 and 40 C.F.R. § 63.1220(d)(2)(ii)(A)]
- ii. Compliance is based on one-year block averages beginning on the day you submit the initial notification of compliance. [Rule 19.304 and 40 C.F.R. § 63.1220(d)(2)(ii)(B)]

- c. Notification. [Rule 19.304 and 40 C.F.R. § 63.1220(d)(2)(iii)]

- i. If you elect to document compliance with one or more emission standards using this emission averaging provision, you must notify the Administrator in the initial comprehensive performance test plan submitted under § 63.1207(e). [Rule 19.304 and 40 C.F.R. § 63.1220(d)(2)(iii)(A)]
- ii. You must include historical raw mill operation data in the performance test plan to estimate future raw mill down-time and document in the performance test plan that estimated emissions and estimated raw mill

- down-time will not result in an exceedance of an emission standard on an annual basis. [Rule 19.304 and 40 C.F.R. § 63.1220(d)(2)(iii)(B)]
- iii. You must document in the notification of compliance submitted under § 63.1207(j) that an emission standard will not be exceeded based on the documented emissions from the performance test and predicted raw mill down-time. [Rule 19.304 and 40 C.F.R. § 63.1220(d)(2)(iii)(C)]

- EEE-162. The emission limits provided by paragraphs (a) and (b) of §63.1220, as outlined in Specific Condition EEE-155, are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance. [Rule 19.304 and 40 C.F.R. § 63.1220(f)]
- EEE-163. When you comply with the particulate matter requirements of paragraphs (a)(7) or (b)(7) of §63.1220, you are exempt from the New Source Performance Standard for particulate matter and opacity under § 60.60. [Rule 19.304 and 40 C.F.R. § 63.1220(h)]
- EEE-164. RESERVED
- EEE-165. Ash Grove shall comply with the operating parameter limits (OPLs) as contained in Appendix N. Should Ash Grove conduct a periodic comprehensive or confirmatory performance test, as required by 40 C.F.R. Part 63, Subpart EEE, during the term of this operating permit, the operating parameter limits found in this permit shall be superseded by those submitted to the Administrator in the facility's most recent Notification of Compliance (NOC). The facility shall submit a Title V Modification Application to ADEQ within 90-days of the NOC submittal to modify the permit to incorporate the table of applicable operating parameter limits found in appendix N. [Rule 19.304 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. Part 63 Subpart EEE §63.1206(c)(1)(v)]
- EEE-166. Table 1 to Subpart EEE specifies the provisions of subpart A (General Provisions, §§63.1–63.15) that apply and those that do not apply to sources affected by this subpart. [Rule 19.304 and 40 C.F.R. § 63.1200(c)]
- EEE-167. The permittee shall keep daily records of the OPLs required by Specific Conditions EEE-118, EEE-122, EEE-123, EEE-131, EEE-134, EEE-140, and EEE-143, and as contained in Appendix N. These records shall be updated by the 15th day of the month following the month to which the records pertain. These records shall be maintained on site and shall be submitted in accordance with General Provision 7. [Rule 19.705 and 40 C.F.R. § 52 Subpart E]

Kiln 4 - SN- 443.SK10

The following conditions have been incorporated into the permit as a condition of Consent Decree No. 2:13-cv-02299 and survive the termination of the Consent Decree.

- CD-1. The “30-Day Rolling Average Emission Limit” definition is relevant to Specific Conditions CD-2 through CD-14. A summary of the compliance mechanism found in the definition is listed below. [Rules 19.501, 19.505, & 19.701 *et seq.*, as agreed to in Consent Decree No: 2:13-cv-02299-JTM-DJW.]
- A. The owner or operator shall determine compliance with the 30-Day Rolling Average Emission Limit as follows:
1. First, sum the total pounds of the air pollutant in question emitted from Foreman Kiln 4 during that Operating Day and the previous twenty-nine (29) Operating Days;
 2. Second, sum the total Tons of clinker produced by Foreman Kiln 4 during the same Operating Day and previous 29 Operating Days; and
 3. Third, divide the total number of pounds of the air pollutant emitted from Foreman Kiln 4 during the thirty (30) Operating Days by the total Tons of clinker produced by Foreman Kiln 4 during the same 30 Operating Days.
- B. A new compliance determination of the 30-Day Rolling Average Emission Limit shall be calculated for each new Operating Day.
- C. In calculating each compliance determination of the 30-Day Rolling Average Emission Limit, the total pounds of such air pollutant emitted from Foreman Kiln 4 during a specified period (Operating Day or 30-Day Period) shall include all emissions of that pollutant from Foreman Kiln 4 that occur during the specified period, including emissions during each Startup, Shutdown, or Malfunction, except to the extent a Malfunction qualifies as a Force Majeure event.

Specific Conditions

- CD-2. The permittee shall have installed and continuously operate the SNCR technology at Foreman Kiln 4 and not exceed the emission limit set forth in the following table:

Kiln	Control Technology	30-Day Rolling Average Emission Limit (lbs. NO _x /Ton of clinker)
Kiln 4 SN-443.SK10	SNCR	1.5

- CD-3. The permittee is required to demonstrate compliance and thereafter maintain compliance with the 30-Day rolling average emission limit for NO_x specified in Specific Condition CD-2 at Kiln 4 (SN-443.SK10). [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]
- CD-4. The permittee shall determine and record the daily clinker production rates by either one of the two following methods:
- Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates of the amount of clinker produced in tons of mass per hour; or
 - Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates of the amount of feed to the kiln in tons of mass per hour. The permittee shall calculate hourly clinker production rate using a kiln specific feed-to-clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. This ratio should be updated no less frequently than once per month. If this ratio changes at clinker reconciliation, the new ratio must be used going forward, but it is not necessary to retroactively change clinker production rates previously estimated.

[Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

- CD-5. Except during CEMS breakdowns, repairs, calibration checks, and zero span adjustments, the NO_x CEMS at SN-443.SK10 shall be operated at all times during kiln operation. The NO_x CEMS shall be used to demonstrate compliance with the NO_x emission limit established in Specific Condition CD-2. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]
- CD-6. The NO_x CEMS shall monitor and record the NO_x emission rate from the Foreman Kiln 4 stack in units of pounds of NO_x per ton of clinker produced from Kiln 4, and shall be installed, certified, calibrated, maintained, and operated in accordance with the applicable requirements of 40 C.F.R. Part 60. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]
- CD-7. All emissions of NO_x from Kiln 4 shall be measured by a NO_x CEMS. During any time when the CEMS is inoperable and otherwise not measuring emissions of NO_x from the Kiln, Ash Grove shall apply the missing data substitution procedures in 40 C.F.R. Part 75, Subpart D. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]
- CD-8. Ash Grove is required to demonstrate and maintain compliance with a 30-Day Rolling Average Emission Limit applicable to Foreman Kiln 4 of 0.6 pounds of SO₂ per ton of clinker. In calculating the 30-day rolling average emission rate, the total pounds of SO₂ emitted from the kiln during a specified period shall include all kiln emissions that occur during the specified period, including emissions during each startup, shutdown or malfunction. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

- CD-9. The permittee shall install and operate a SO₂ CEMS on the Foreman Kiln 4 stack in accordance with the requirements of 40 C.F.R. Part 60. [Rule 19.501 *et seq.*, 40 C.F.R. § 52 Subpart E and Consent Decree No: 2:13-cv-02299-JTM-DJW Document 27, paragraph 51]
- CD-10. Except during CEMS breakdowns, repairs, calibration checks, and zero span adjustments, the SO₂ CEMS shall be operated at all times during kiln operation. The SO₂ CEMS shall be used to demonstrate compliance with the SO₂ emission limit established in Specific Condition CD-8. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]
- CD-11. The SO₂ CEMS shall monitor and record the SO₂ emission rate from the Foreman Kiln 4 stack in units of pounds of SO₂ per ton of clinker produced from Kiln 4, and shall be installed, certified, calibrated, maintained, and operated in accordance with the applicable requirements of 40 C.F.R. Part 60. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]
- CD-12. All emissions of SO₂ from Foreman Kiln 4 shall be measured by a SO₂ CEMS. During any time when the CEMS is inoperable and otherwise not measuring emissions of SO₂ from the Kiln, Ash Grove shall apply the missing data substitution procedures in 40 C.F.R. Part 75, Subpart D. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]
- CD-13. Ash Grove is required to demonstrate and maintain compliance with an emission limit of 0.086 pounds of PM per ton of clinker. Compliance shall be demonstrated using a three run EPA Method 5 or Method 5I performance test and that performance test shall be repeated no less frequently than every 365 Operating Days thereafter. If performance testing would be required less than 15 Operating Days after the Kiln has completed Startup after being down for more than 24 hours, then performance testing may be deferred up to 15 Operating Days after completion of the Startup. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]
- CD-14. Ash Grove shall use the PM continuous parametric monitoring system (CPMS) on the Foreman Kiln 4 stack to establish a site specific operating limit (SSOL) for PM corresponding to the results of the performance test demonstrating compliance with the PM limit using Method 5 or 5I at Appendix A-3 of 40 C.F.R. Part 60 and using the methodology in 40 C.F.R. § 63.1349(b). Ash Grove shall reassess and adjust the SSOL in accordance with the results of the most recent PM performance test demonstrating compliance with the PM emission limit. For any deviation from the SSOL established in accordance with Paragraph 60 of the Decree, Ash Grove shall:
- a. Within 48 hours of the deviation, visually inspect the PM Control Technology;

- b. If inspection of the PM Control Technology identifies the cause of the deviation, take corrective action as soon as possible, and return the CPMS measurement to within the SSOL;
- c. Within 45 Days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the SSOL consistent with Section II of Appendix B of the Consent Decree. Ash Grove is not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this subparagraph;
- d. Except as identified in Specific Condition CD-14.e, deviation from the SSOL does not constitute a violation of the Consent Decree and is not subject to stipulated penalties under Section XV of the Consent Decree (Stipulated Penalties).
- e. Any deviation of the 30 day rolling average from the established SSOL leading to more than four required performance tests in a 12-consecutive month period (rolling monthly) shall be treated as a separate violation of the Consent Decree and subject to stipulated penalties under Section XV of the Consent Decree (Stipulated Penalties).

Emergency Generator - SN-710.EG10

Source Description

This is a diesel fired generator that is only allowed to operate 500 hours per year.

Specific Conditions

- EG-1. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Condition EG-3. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
710.EG10	Emergency Generator	PM ₁₀	0.5	0.2
		SO ₂	2.9	0.7
		VOC	0.5	0.2
		CO	3.9	1.0
		NO _x	6.2	1.6

- EG-2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Condition EG-3. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
710.EG10	Emergency Generator	PM	0.5	0.2
		Total HAP	0.01	0.01

- EG-3. The permittee shall not operate this source in excess of 500 hours per consecutive 12-month period. The permittee shall maintain records of the hours of operation of this source. These records shall be updated as necessary. These records shall be maintained on site and made available to Division of Environmental Quality personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 18.1004, Rule 19.705, 40 C.F.R. § 70.6 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

40 C.F.R. § 60 Subpart IIII

- EG-4. The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. [Rule 19.304 and 40 C.F.R. § 60.4200(a)]

- a. Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are: [Rule 19.304 and 40 C.F.R. § 60.4200(a)(2)]
 - i. Manufactured after April 1, 2006, and are not fire pump engines [Rule 19.304 and 40 C.F.R. § 60.4200(a)(2)(i)]
 - b. The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005. [Rule 19.304 and 40 C.F.R. § 60.4200(a)(4)]
- EG-5. Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [Rule 19.304 and 40 C.F.R. § 60.4205(b)]
 - a. For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 C.F.R. 89.112 and 40 C.F.R. 89.113 for all pollutants beginning in model year 2007. [Rule 19.304 and 40 C.F.R. § 60.4202(a)(2)]
- EG-6. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4204 and 60.4205 over the entire life of the engine. [Rule 19.304 and 40 C.F.R. § 60.4206]
- EG-7. Beginning October 1, 2010, if owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must purchase diesel fuel that meets the requirements of 40 C.F.R. 80.510(b) for nonroad diesel fuel. [Rule 19.304 and 40 C.F.R. § 60.4207(b)]
- EG-8. Owners and operators must meet the monitoring requirements of §60.4209. In addition, you must also meet the monitoring requirements specified in §60.4211. [Rule 19.304 and 40 C.F.R. § 60.4209]
 - a. If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.
- EG-9. If you are an owner or operator and must comply with the emission standards specified in Subpart IIII, you must do all of the following, except as permitted under paragraph (g) of §60.4211: [Rule 19.304 and 40 C.F.R. § 60.4211(a)]
 - a. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; [Rule 19.304 and 40 C.F.R. § 60.4211(a)(1)]

- b. Change only those emission-related settings that are permitted by the manufacturer; and [Rule 19.304 and 40 C.F.R. § 60.4211(a)(2)]
- c. Meet the requirements of 40 C.F.R. parts 89, 94 and/or 1068, as they apply to you. [Rule 19.304 and 40 C.F.R. § 60.4211(a)(3)]

EG-10. If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to the facility's fire pump engine power rating in table 3 to Subpart IIII and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of §60.4211. [Rule 19.304 and 40 C.F.R. § 60.4211(c)]

EG-11. If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. [Rule 19.304 and 40 C.F.R. § 60.4211(f)]

- a. You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2). [Rule 19.304 and 40 C.F.R. § 60.4211(f)(2)]
 - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [Rule 19.304 and 40 C.F.R. § 60.4211(f)(2)(i)]

- ii. Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [Rule 19.304 and 40 C.F.R. § 60.4211(f)(2)(ii)]
 - iii. Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [Rule 19.304 and 40 C.F.R. § 60.4211(f)(2)(iii)]
 - b. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [Rule 19.304 and 40 C.F.R. § 60.4211(f)(3)]
- EG-12. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the nonresettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. [Rule 19.304 and 40 C.F.R. § 60.4214(b)]
- EG-13. Table 8 to Subpart IIII shows which parts of the General Provisions in §60.1 through §60.19 apply to you. [Rule 19.304 and 40 C.F.R. § 60.4218]

Haul Roads

Source Description

These roads are used to move raw materials and product throughout the plant.

Specific Conditions

HR-1. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Condition HR-3. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
111.R1A-F	Quarry Haul Road	PM ₁₀	6.9	6.9
HR01	Plant Road 1	PM ₁₀	1.9	1.1
HR02	Plant Road 2	PM ₁₀	0.8	0.5
HR03	Plant Road 3	PM ₁₀	0.2	0.1
HR04	Plant Road 4	PM ₁₀	0.4	0.3
HR05	Plant Road 5	PM ₁₀	0.2	0.2
HR06	Plant Road 6	PM ₁₀	0.2	0.2
HR07	Plant Road 7	PM ₁₀	0.1	0.1
HR08	Plant Road 8	PM ₁₀	0.1	0.1
HR09	Plant Road 9	PM ₁₀	0.1	0.1
HR10	Plant Road 10	PM ₁₀	0.2	0.1
HR11	Plant Road 11	PM ₁₀	0.1	0.1
HR12	Plant Road 12	PM ₁₀	0.1	0.1
HR13	Plant Road 13	PM ₁₀	0.5	1.1
HR14	Plant Road 14	PM ₁₀	0.2	0.1
HR15	Plant Road 15	PM ₁₀	0.4	0.7
HR16	Plant Road 16	PM ₁₀	0.2	0.1
HR17	Plant Road 17	PM ₁₀	0.1	0.1
HR18	Plant Road 18	PM ₁₀	0.3	0.3

SN	Description	Pollutant	lb/hr	tpy
HR19	Plant Road 19	PM ₁₀	0.3	0.1
HR20	Plant Road 20	PM ₁₀	0.2	0.1
HR21	Plant Road 21	PM ₁₀	0.9	2.6
HR22	Plant Road 22	PM ₁₀	0.2	0.1
HR23	Plant Road 23	PM ₁₀	0.2	0.1

HR-2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Condition HR-3. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
111.R1A-F	Quarry Haul Road	PM	24.1	24.1
HR01	Plant Road 1	PM	9.2	5.1
HR02	Plant Road 2	PM	2.8	1.5
HR03	Plant Road 3	PM	0.6	0.1
HR04	Plant Road 4	PM	1.4	0.9
HR05	Plant Road 5	PM	0.4	0.4
HR06	Plant Road 6	PM	0.7	0.7
HR07	Plant Road 7	PM	0.4	0.2
HR08	Plant Road 8	PM	0.2	0.1
HR09	Plant Road 9	PM	0.1	0.1
HR10	Plant Road 10	PM	0.9	0.4
HR11	Plant Road 11	PM	0.1	0.1
HR12	Plant Road 12	PM	0.1	0.1
HR13	Plant Road 13	PM	2.5	5.2
HR14	Plant Road 14	PM	0.7	0.2
HR15	Plant Road 15	PM	1.9	3.4
HR16	Plant Road 16	PM	0.9	0.5

SN	Description	Pollutant	lb/hr	tpy
HR17	Plant Road 17	PM	0.2	0.1
HR18	Plant Road 18	PM	1.1	1.1
HR19	Plant Road 19	PM	0.9	0.3
HR20	Plant Road 20	PM	0.7	0.1
HR21	Plant Road 21	PM	3.1	9.2
HR22	Plant Road 22	PM	0.5	0.2
HR23	Plant Road 23	PM	0.4	0.1

- HR-3. The permittee shall clean or treat haul roads in accordance with a haul road maintenance plan as found in Appendix D of this permit. This plan shall be designed to minimize emissions from this source. A copy of this plan shall be kept on site and made available to Division of Environmental Quality personnel upon request. The permittee shall water the road sections using the amount of water specified in Appendix M of this permit as a guide. A copy of the amount of water used to water the roads shall be kept on site and made available to Division of Environmental Quality personnel upon request. [Rule 18.1004, Rule 19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- HR-4. Nothing in this permit shall be construed to authorize a violation of the Arkansas Water and Air Pollution Control Act or the federal National Pollutant Discharge Elimination System (NPDES). [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

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Enclosed Transfer Points

Source Description

Enclosed transfer points are not emission points. However, enclosures must be operated and maintained in accordance with the facility's Operations and Maintenance Plan, per 40 C.F.R. § 1350(f)(1)(v). Appendix B of this permit provides a list of enclosed transfer points that should be included in the facility's Title V air operating permit.

Specific Conditions

- ETP-1. The permittee shall operate and maintain the sources listed in Appendix B of this permit in accordance with 40 C.F.R. § 1350(f)(1)(v). [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Portable Crusher - SN-449.CR10

Source Description

There are times when clinker (the intermediate material in making Portland cement) is stored outside and exposed to the elements. It is exposed to the weather and aggregates into large chunks that are difficult to handle. Foreman does not intend to store clinker outside but small amounts of spillage and off-spec material will go outside for recycling back into the system. The crushing operation will be only periodic as the crusher and belt are rental equipment. The equipment consists of a crusher powered by a 500 HP or smaller diesel engine. The equipment will not be on site when not in operation. The equipment is not considered stationary and is exempt from 40 C.F.R. Part 60, Subpart IIII or 40 C.F.R. Part 63, Subpart ZZZZ. The equipment cannot stay in the same location for more than 12 months or will lose the exemption.

Specific Conditions

PORT-1. The permittee shall not exceed the emission rates set forth in the following table. Emission rates are based on maximum capacity of the equipment and continuous operation. Compliance shall be demonstrated through compliance with Specific Condition PORT-3. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
449.CR10	Portable Crusher	PM ₁₀	0.3	1.2
		SO ₂	1.1	4.5
		VOC	3.3*	14.4*
		CO	2.9	12.6
		NO _x	3.3*	14.4*

* Combined VOC and NO_x limits per EPA Tier III Emissions Standards.

PORT-2. The permittee shall not exceed the emission rates set forth in the following table. Emission rates are based on maximum capacity of the equipment and continuous operation. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
449.CR10	Portable Crusher	PM	0.3	1.0
		Total HAP	0.02	0.06

PORT-3. The sulfur content of the fuel at the engine associated with the Portable Crusher (SN-449.CR10) must not exceed 0.05%. [Rule 19.705 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

- PORT-4. The permittee shall demonstrate compliance with the maximum sulfur content in #2 distillate fuel oil as established in Specific Condition PORT-3 by retaining the fuel certifications from the supplier each time a fuel shipment is received. Records shall be kept onsite and made available to Division of Environmental Quality personnel upon request. [Rule 19.705 and 40 C.F.R. § 52 Subpart E]
- PORT-5. The opacity from the Portable Crusher (SN-449.CR10) shall not exceed 20%. Compliance with the opacity standard shall be demonstrated through compliance with Specific Condition PORT-6. [Rule 19.503 and 40 C.F.R. § 52 Subpart E]
- PORT-6. Weekly visible emission observations shall be used as a method of compliance verification for the opacity limits assigned for the Portable Crusher (SN-449.CR10), when in operation. The weekly observations shall be conducted by someone familiar with the facility's visible emissions. [Rule 18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- a. If during the observations, visible emissions are detected which appear to be in excess of the permitted opacity limit, the permittee shall:
 - i. Take immediate action to identify the cause of the visible emissions,
 - ii. Implement corrective action, and
 - iii. If excessive visible emissions are still detected, an opacity reading shall be conducted in accordance with EPA Reference Method 9 for point sources and in accordance with EPA Method 22 for non-point sources. This reading shall be conducted by a person trained and certified in the reference method. If the opacity reading exceeds the permitted limit, further corrective measures shall be taken.
 - iv. If no excessive visible emissions are detected, the incident shall be noted in the records as described below.
 - b. The permittee shall maintain records related to all visible emission observations and Method 9 readings. These records shall be updated on an as-performed basis. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. These records shall contain:
 - i. The time and date of each observation/reading,
 - ii. The results of the observations,
 - iii. The cause of any observed exceedance of opacity limits, corrective actions taken, and results of the reassessment, and
 - iv. The name of the person conducting the observation/reading.

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SECTION V: COMPLIANCE PLAN AND SCHEDULE

Ash Grove Cement Company will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future rules and regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Rule 19.704, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Rule 19.410(B) and 40 C.F.R. § 52 Subpart E]
3. The permittee must test any equipment scheduled for testing, unless otherwise stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Division of Environmental Quality or within 180 days of permit issuance if no date is specified. The permittee must notify the Division of Environmental Quality of the scheduled date of compliance testing at least fifteen (15) business days in advance of such test. The permittee shall submit the compliance test results to the Division of Environmental Quality within sixty (60) calendar days after completing the testing. [Rule 19.702 and/or Rule 18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
4. The permittee must provide:
 - a. Sampling ports adequate for applicable test methods;
 - b. Safe sampling platforms;
 - c. Safe access to sampling platforms; and
 - d. Utilities for sampling and testing equipment.

[Rule 19.702 and/or Rule 18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Rule 19.303 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
6. This permit subsumes and incorporates all previously issued air permits for this facility. [Rule 26 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

7. Unless otherwise specified in the permit, approval to construct any new major stationary source or a major modification subject to 40 C.F.R. § 52.21 shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Division of Environmental Quality may extend the 18-month period upon a satisfactory showing that an extension is justified. [Rule 19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
8. The facility shall develop and implement a written startup, shutdown, and malfunction plan for sources subject to 40 C.F.R. 63, Subpart EEE, *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*. The plan shall include those items listed in 40 C.F.R. 63.6(e)(3) *et seq.* The plan shall be maintained on site and be available to Division of Environmental Quality personnel upon request. [Rule 19.304 and 40 C.F.R. 63.6(e)(3)(i)]
9. The permittee shall not produce more than 5,300 tons of clinker per day. The permittee shall maintain records of the amount of clinker produced on a daily basis. These records shall be kept on site and made available to Division of Environmental Quality personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [Rule 19.705, 40 C.F.R. § 70.6 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
10. This facility is subject to the federal regulations identified herein at the time of permit issuance. The source(s) affected by these regulations must comply with the most recent version as published in the Code of Federal Regulations. The source(s) must comply with all applicable federal regulations, whether or not accurately and specifically identified in this permit or its appendices. Regulations attached to this permit are for illustrative purposes only and are not deemed to be enforceable as attached unless the attached version is the most current and effective revision as cited and published in the C.F.R. Regardless of the form of the attached subparts, the source(s) are always subject to the most recent version of the subparts. In addition, subsequent changes to the subparts do not necessarily exempt the source from existing requirements contained in this air permit. The permittee must submit a modification to this permit within 3 months upon issuance of any revised final rule if necessary. [Rule 19.304 of Regulation 19 and 40 C.F.R. §52 Subpart E]

Title VI Provisions

11. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 C.F.R. § 82 Subpart E]
 - a. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to § 82.106.

- b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
 - c. The form of the label bearing the required warning must comply with the requirements pursuant to § 82.110.
 - d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
- 12. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 C.F.R. § 82 Subpart F]
 - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
 - c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC like appliances must comply with record keeping requirements pursuant to § 82.166. (“MVAC like appliance” as defined at § 82.152)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
- 13. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 C.F.R. § 82 Subpart A, Production and Consumption Controls.
- 14. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 C.F.R. § 82 Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC 22 refrigerant.
- 15. The permittee can switch from any ozone depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 C.F.R. § 82 Subpart G.

Permit Shield

16. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included in and specifically identified in the following table of this condition. The permit specifically identifies the following as applicable requirements based upon the information submitted by the permittee in an application dated January 26, 2023.

Applicable Regulations

Source No.	Regulation	Description
Plantwide	Arkansas Rule 19	Compilation of Regulations of the Arkansas State Implementation Plan for Air Pollution Control
Plantwide	Arkansas Rule 26	Regulations of the Arkansas Operating Air Permit Program
Plantwide	40 C.F.R. § 52.21	Regulations for the prevention of Significant Deterioration of Air Quality
41F.FT10, 40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8, 40F.FT9, 40F.FTA, 40F.FT11	40 C.F.R. § 60, Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984
44B.BF20, 443.BF10, 43.BF30, 443.SK10	40 C.F.R. § 63, Subpart EEE	Emission Standards for Hazardous Waste Combustors
326.CH10, 326.CH22, 326.CH26, 403.CHM 403.CHR, 403.CHU 443.CH56, 443.CH46, 449.BF10, 449.BF15, 449.BF20, 449.BF30, 449.BF40, 449.BF50, 449.BF60, 449.BF70, 449.CH30, 449.CH31, 449.CH32, 449.CH33, 449.CH42, 449.HP2, 449.HP4, 449.T7, 449.T8, 449.T16, 533.LS10, 534.CH12, 514.BF1, 514.BF2, 514.BF3, 524.BF1, 524.BF2, 611.BF1, 611.BF3, 611.BF4, 611.BF10,	40 C.F.R. § 63, Subpart LLL	Emission Standards for Portland Cement Plants

Source No.	Regulation	Description
611.BF20, 611.BF30, 611.BF40, 403.BF3, 403.BF4, 403.BF6, 403.BF7, 403.BF8, 612.BF1, 612.BF2, 612.BF3, 612.BF4, 612.BF5, 621.BF1, 621.BF2, 621.BF3, 621.BF5, 621.BF6(E), 621.BF7(W), 621.BF8, 621.BF9, 631.BF10, 631.BF15, 631.BF20, 631.BF25, 631.BF30, 513.BF1, 521.BF1, 521.BF2, 523.BF2, 531.BF10, 531.BF20, 533.BF10, 533.BF20, 534.BF10, 534.BF20, 535.BF10, 535.BF20, 44C.BF10, 44M.BF10, 409.BF10, 442.BF10, 442.BF20, 443.BF20, 449, BF31, 327.BF10, 327.BF20, 327.BF30, 442.BF10, 442.BF20, 443.BF20, 311.CHA, 326.BF10, 326.BF30, 329.BF10, 329.BF20, 611.UL10		
41F.FT10, 40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8, 40F.FT9, 40F.FTA, 40F.FT11, 40F.TX1, 45F.TX10, BCC	40 C.F.R. § 61, Subpart FF	National Emission Standards for Benzene Waste Operations
41A.BF10, 41A.BF20, 41A.T2, 41A.T10, 44A.T10, 44A.BF10, 44B.BF10	40 C.F.R. § 60, Subpart Y	Standards of Performance for Coal Preparation Plants
41A.BF10, 41A.BF20, 44A.BF10, 213.BF10, 213.BF20, 213.T2, 213.T3, 221.BF10, 323.BF10,	40 C.F.R. § 60, Subpart OOO	Standards of Performance for Nonmetallic Mineral Processing Plants

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Source No.	Regulation	Description
325.BF10, 325.BF20, 325.BF30, 41A.T1, 111.T10, 111.T12, 111.T13, 111.T14, 213.T1, 221.CH01, 221.RMB1, 221.T1, 321.CH01, 323.T1		
41F.FT10, 40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8, 40F.FT9, 40F.FTA, 40F.FT11, 40F.TX1, 45F.TX10, BCC	40 C.F.R. § 63, Subpart G	National Emission Standards for Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater
41F.FT10, 40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8, 40F.FT9, 40F.FTA, 40F.FT11, 40F.TX1, 34F.TX10, BCC	40 C.F.R. § 63, Subpart DD	National Emission Standards for Hazardous Air Pollutants from Off-site Waste and Recovery Operations
Containers Subject to MACT DD	40 C.F.R. § 63, Subpart PP	National Emission Standards for Containers
41F.FT10, 40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8, 40F.FT9, 40F.FTA, 40F.FT11, 40F.TX1, 45F.TX10, BCC	40 C.F.R. § 63, Subpart XX	National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations
710-EG10	40 C.F.R. § 60, Subpart III	New Source performance Standards for Stationary Compression Ignition Internal Combustion Engines

The permit specifically identifies the following as inapplicable based upon information submitted by the permittee in an application dated January 26, 2023.

Inapplicable Regulations

Source No.	Regulation	Description
Plantwide	40 C.F.R. § 60, Subpart F	Standards of Performance for Portland Cement Plants

SECTION VII: INSIGNIFICANT ACTIVITIES

The Division of Environmental Quality deems the following types of activities or emissions as insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Rule 18 and Rule 19 Appendix A. Group B insignificant activities may be listed but are not required to be listed in permits. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated January 26, 2023. [Rule 26.304 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Description	Category
Two (2) 500 gallon grinding aid tanks	A-3
725 gallon grinding aid tank	A-3
10,000 gallon grinding aid tank	A-3
10,000 gallon Masonry Air Entraining Agent Tank	A-3
Three (3) 10,000 gallon diesel storage tanks	A-3
7,500 gallon diesel storage tank	A-3
10,000 gallon oil storage tank	A-3
550 gallon kerosene storage tank	A-3
Three (3) 550 gallon lubricant storage tanks	A-3
1,000 gallon used oil storage tank	A-3
Two (2) 350 gallon used oil storage tanks	A-3
Cadence Lab Vents	A-5
Piles Associated with Clean-up	A-13
12,000 gallon diesel storage tank	A-13
3,000 gallon gasoline storage tank	A-13
30,000 gallon grinding aid tank	A-13

SECTION VIII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Rule 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Rule 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Rule 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 C.F.R. § 70.6(b)(2)]
2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 C.F.R. § 70.6(a)(2) and Rule 26.701(B)]
3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Division of Environmental Quality takes final action on the renewal application. The Division of Environmental Quality will not necessarily notify the permittee when the permit renewal application is due. [Rule 26.406]
4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 C.F.R. § 70.6(a)(1)(ii) and Rule 26.701(A)(2)]
5. The permittee must maintain the following records of monitoring information as required by this permit.
 - a. The date, place as defined in this permit, and time of sampling or measurements;
 - b. The date(s) analyses performed;
 - c. The company or entity performing the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of such analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

[40 C.F.R. § 70.6(a)(3)(ii)(A) and Rule 26.701(C)(2)]

6. The permittee must retain the records of all required monitoring data and support information for 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 for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 C.F.R. § 70.6(a)(3)(ii)(B) and Rule 26.701(C)(2)(b)]
7. The permittee must submit reports of all required monitoring every six (6) months. If the permit establishes no other reporting period, the reporting period shall end on the last day of the month six months after the issuance of the initial Title V permit and every six months thereafter. The report is due on the first day of the second month after the end of the reporting period. The first report due after issuance of the initial Title V permit shall contain six months of data and each report thereafter shall contain 12 months of data. The report shall contain data for all monitoring requirements in effect during the reporting period. If a monitoring requirement is not in effect for the entire reporting period, only those months of data in which the monitoring requirement was in effect are required to be reported. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Rule 26.2 must certify all required reports. The permittee will send the reports electronically using <https://portal.adeq.state.ar.us> or mail them to the address below:

Division of Environmental Quality
Office of Air Quality
ATTN: Compliance Inspector Supervisor
5301 Northshore Drive
North Little Rock, AR 72118-5317

[40 C.F.R. § 70.6(a)(3)(iii)(A) and Rule 26.701(C)(3)(a)]

8. The permittee shall report to the Division of Environmental Quality all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.
 - a. For all upset conditions (as defined in Rule 19.601), the permittee will make an initial report to the Division of Environmental Quality by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:
 - i. The facility name and location;
 - ii. The process unit or emission source deviating from the permit limit;
 - iii. The permit limit, including the identification of pollutants, from which deviation occurs;
 - iv. The date and time the deviation started;
 - v. The duration of the deviation;

- vi. The emissions during the deviation;
- vii. The probable cause of such deviations;
- viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future; and
- ix. The name of the person submitting the report.

The permittee shall make a full report in writing to the Division of Environmental Quality within five (5) business days of discovery of the occurrence. The report must include, in addition to the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The permittee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the initial report and full report.

- b. For all deviations, the permittee shall report such events in semi-annual reporting and annual certifications required in this permit. This includes all upset conditions reported in 8a above. The semi-annual report must include all the information as required by the initial and full reports required in 8a.

[Rule 19.601, Rule 19.602, Rule 26.701(C)(3)(b), and 40 C.F.R. § 70.6(a)(3)(iii)(B)]

- 9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Rule are declared to be separable and severable. [40 C.F.R. § 70.6(a)(5), Rule 26.701(E), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- 10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Rule 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. § 7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 C.F.R. § 70.6(a)(6)(i) and Rule 26.701(F)(1)]
- 11. 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 to maintain compliance with the conditions of this permit. [40 C.F.R. § 70.6(a)(6)(ii) and Rule 26.701(F)(2)]
- 12. The Division of Environmental Quality may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 C.F.R. § 70.6(a)(6)(iii) and Rule 26.701(F)(3)]

13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 C.F.R. § 70.6(a)(6)(iv) and Rule 26.701(F)(4)]
14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director 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 must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Division of Environmental Quality may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 C.F.R. § 70.6(a)(6)(v) and Rule 26.701(F)(5)]
15. The permittee must pay all permit fees in accordance with the procedures established in Rule 9. [40 C.F.R. § 70.6(a)(7) and Rule 26.701(G)]
16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 C.F.R. § 70.6(a)(8) and Rule 26.701(H)]
17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 C.F.R. § 70.6(a)(9)(i) and Rule 26.701(I)(1)]
18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Division of Environmental Quality specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 C.F.R. § 70.6(b) and Rule 26.702(A) and (B)]
19. Any document (including reports) required by this permit pursuant to 40 C.F.R. § 70 must contain a certification by a responsible official as defined in Rule 26.2. [40 C.F.R. § 70.6(c)(1) and Rule 26.703(A)]
20. The permittee must allow an authorized representative of the Division of Environmental Quality, upon presentation of credentials, to perform the following: [40 C.F.R. § 70.6(c)(2) and Rule 26.703(B)]
 - a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;

- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.
- 21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually. If the permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due on the first day of the second month after the end of the reporting period. The permittee must also submit the compliance certification to the Administrator as well as to the Division of Environmental Quality. All compliance certifications required by this permit must include the following: [40 C.F.R. § 70.6(c)(5) and Rule 26.703(E)(3)]
 - a. The identification of each term or condition of the permit that is the basis of the certification;
 - b. The compliance status;
 - c. Whether compliance was continuous or intermittent;
 - d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
 - e. Such other facts as the Division of Environmental Quality may require elsewhere in this permit or by § 114(a)(3) and § 504(b) of the Act.
- 22. Nothing in this permit will alter or affect the following: [Rule 26.704(C)]
 - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
 - b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the acid rain program, consistent with § 408(a) of the Act; or
 - d. The ability of EPA to obtain information from a source pursuant to § 114 of the Act.
- 23. This permit authorizes only those pollutant emitting activities addressed in this permit. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- 24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Division of Environmental Quality approval. The Division of Environmental Quality may grant such a request, at its discretion in the following circumstances:

- a. Such an extension does not violate a federal requirement;
- b. The permittee demonstrates the need for the extension; and
- c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

[Rule 18.314(A), Rule 19.416(A), Rule 26.1013(A), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

25. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Division of Environmental Quality approval. Any such emissions shall be included in the facility's total emissions and reported as such. The Division of Environmental Quality may grant such a request, at its discretion under the following conditions:

- a. Such a request does not violate a federal requirement;
- b. Such a request is temporary in nature;
- c. Such a request will not result in a condition of air pollution;
- d. The request contains such information necessary for the Division of Environmental Quality to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
- e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
- f. The permittee maintains records of the dates and results of such temporary emissions/testing.

[Rule 18.314(B), Rule 19.416(B), Rule 26.1013(B), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

26. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Division of Environmental Quality approval. The Division of Environmental Quality may grant such a request, at its discretion under the following conditions:

- a. The request does not violate a federal requirement;
- b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and
- c. Any such request, if approved, is incorporated in the next permit modification application by the permittee.

Ash Grove Cement Company

Permit #: 0075-AOP-R26

AFIN: 41-00001

[Rule 18.314(C), Rule 19.416(C), Rule 26.1013(C), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

27. Any credible evidence based on sampling, monitoring, and reporting may be used to determine violations of applicable emission limitations. [Rule 18.1001, Rule 19.701, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

Appendix A

Continuous Emissions Monitoring Systems Conditions



CONTINUOUS EMISSION MONITORING SYSTEMS CONDITIONS

Division of Environmental Quality

Office of Air Quality

12/3/2020

PREAMBLE

These conditions are intended to outline the requirements for facilities required to operate Continuous Emission Monitoring Systems/Continuous Opacity Monitoring Systems (CEMS/COMS). Generally, there are three types of sources required to operate CEMS/COMS:

1. CEMS/COMS required by 40 C.F.R. § 60 or 63.
2. CEMS required by 40 C.F.R § 75.
3. CEMS/COMS required by permit for reasons other than § 60, 63 or 75.

These CEMS/COMS conditions are not intended to supersede 40 C.F.R. § 60, 63 or 75 requirements.

- Only CEMS/COMS in the third category (those required by the Arkansas Department of Energy and Environment's (Department) Division of Environmental Quality (DEQ) permit for reasons other than 40 C.F.R. § 60, 63 or 75) shall comply with SECTION II, MONITORING REQUIREMENTS and SECTION IV, QUALITY ASSURANCE/QUALITY CONTROL.
- All CEMS/COMS shall comply with Section III, NOTIFICATION AND RECORDKEEPING.

SECTION I

DEFINITIONS

Continuous Emission Monitoring System (CEMS) – The total equipment required for the determination of a gas concentration and/or emission rate so as to include sampling, analysis and recording of emission data.

Continuous Opacity Monitoring System (COMS) – The total equipment required for the determination of opacity as to include sampling, analysis and recording of emission data.

Calibration Drift (CD) – The difference in the CEMS output reading from the established reference value after a stated period of operation during which no unscheduled maintenance, repair, or adjustments took place.

Back-up CEMS (Secondary CEMS) – A CEMS with the ability to sample, analyze and record stack pollutant to determine gas concentration and/or emission rate. This CEMS is to serve as a back-up to the primary CEMS to minimize monitor downtime.

Excess Emissions – Any period in which the emissions exceed the permit limits.

Monitor Downtime – Any period during which the CEMS/COMS is unable to sample, analyze and record a minimum of four evenly spaced data points over an hour, except during one daily zero-span check during which two data points per hour are sufficient.

Out-of-Control Period – Begins with the time corresponding to the completion of the fifth, consecutive, daily CD check with a CD in excess of two times the allowable limit, or the time corresponding to the completion of the daily CD check preceding the daily CD check that results in a CD in excess of four times the allowable limit and the time corresponding to the completion of the sampling for the Relative Accuracy Test Audit (RATA), Relative Accuracy Audit (RAA), or Cylinder Gas Audit (CGA) which exceeds the limits outlined in Section IV. Out-of-Control Period ends with the time corresponding to the completion of the CD check following corrective action with the results being within the allowable CD limit or the completion of the sampling of the subsequent successful RATA, RAA, or CGA.

Primary CEMS – The main reporting CEMS with the ability to sample, analyze, and record stack pollutant to determine gas concentration and/or emission rate.

Relative Accuracy (RA) – The absolute mean difference between the gas concentration or emission rate determined by the CEMS and the value determined by the reference method plus the 2.5 percent error confidence coefficient of a series of tests divided by the mean of the reference method tests of the applicable emission limit.

Span Value – The upper limit of a gas concentration measurement range.

SECTION II

MONITORING REQUIREMENTS

**** Only CEMS/COMS required by DEQ permit for reasons other than 40 C.F.R. § 60, 63 or 75 shall comply with this section.**

- A. For new sources, the installation date for the CEMS/COMS shall be no later than thirty (30) days from the date of start-up of the source.
- B. For existing sources, the installation date for the CEMS/COMS shall be no later than sixty (60) days from the issuance of the permit unless the permit requires a specific date.
- C. Within sixty (60) days of installation of a CEMS/COMS, a performance specification test (PST) must be completed. PST's are defined in 40 C.F.R. § 60, Appendix B, PS 1-9. DEQ may accept alternate PST's for pollutants not covered by Appendix B on a case-by-case basis. Alternate PST's shall be approved, in writing, by the DEQ CEM Coordinator prior to testing.
- D. Each CEMS/COMS shall have, as a minimum, a daily zero-span check. The zero-span shall be adjusted whenever the 24-hour zero or 24-hour span drift exceeds two times the limits in the applicable performance specification in 40 C.F.R. § 60, Appendix B. Before any adjustments are made to either the zero or span drifts measured at the 24-hour interval, the excess zero and span drifts measured must be quantified and recorded.
- E. All CEMS/COMS shall be in continuous operation and shall meet minimum frequency of operation requirements of 95% up-time for each quarter for each pollutant measured. Percent of monitor down-time is calculated by dividing the total minutes the monitor is not in operation by the total time in the calendar quarter and multiplying by one hundred. Failure to maintain operation time shall constitute a violation of the CEMS conditions.
- F. Percent of excess emissions are calculated by dividing the total minutes of excess emissions by the total time the source operated and multiplying by one hundred. Failure to maintain compliance may constitute a violation of the CEMS conditions.
- G. All CEMS measuring emissions shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen-minute period unless more cycles are required by the permit. For each CEMS, one-hour averages shall be computed from four or more data points equally spaced over each one-hour period unless more data points are required by the permit.
- H. All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

- I. When the pollutant from a single affected facility is released through more than one point, a CEMS/COMS shall be installed on each point unless installation of fewer systems is approved, in writing, by the DEQ CEM Coordinator. When more than one CEM/COM is used to monitor emissions from one affected facility the owner or operator shall report the results as required from each CEMS/COMS.

SECTION III

NOTIFICATION AND RECORD KEEPING

**** All CEMS/COMS shall comply with this section.**

- A. When requested to do so by an owner or operator, the DEQ CEM Coordinator will review plans for installation or modification for the purpose of providing technical advice to the owner or operator.
- B. Each facility which operates a CEMS/COMS shall notify the DEQ CEM Coordinator of the date for which the demonstration of the CEMS/COMS performance will commence (i.e. PST, RATA, RAA, CGA). Notification shall be received in writing no less than 15 business days prior to testing. Performance test results shall be submitted to DEQ within thirty days after completion of testing.
- C. Each facility which operates a CEMS/COMS shall maintain records of the occurrence and duration of start up/shut down, cleaning/soot blowing, process problems, fuel problems, or other malfunction in the operation of the affected facility which causes excess emissions. This includes any malfunction of the air pollution control equipment or any period during which a continuous monitoring device/system is inoperative.
- D. Each facility required to install a CEMS/COMS shall submit an excess emission and monitoring system performance report to DEQ (Attention: DEQ, Office of Air Quality, CEM Coordinator) at least quarterly, unless more frequent submittals are warranted to assess the compliance status of the facility. Quarterly reports shall be postmarked no later than the 30th day of the month following the end of each calendar quarter.
- E. All excess emissions shall be reported in terms of the applicable standard. Each report shall be submitted on DEQ Quarterly Excess Emission Report Forms. Alternate forms may be used with prior written approval from DEQ.
- F. Each facility which operates a CEMS/COMS must maintain on site a file of CEMS/COMS data including all raw data, corrected and adjusted, repair logs, calibration checks, adjustments, and test audits. This file must be retained for a period of at least five years and is required to be maintained in such a condition that it can easily be audited by an inspector.
- G. Quarterly reports shall be used by DEQ to determine compliance with the permit.

SECTION IV

QUALITY ASSURANCE/QUALITY CONTROL

**** Only CEMS/COMS required by DEQ permit for reasons other than 40 C.F.R. § 60, 63 or 75 shall comply with this section.**

- A. For each CEMS/COMS a Quality Assurance/Quality Control (QA/QC) plan shall be submitted to DEQ (Attn.: DEQ, Office of Air Quality, CEM Coordinator). CEMS quality assurance procedures are defined in 40 C.F.R. § 60, Appendix F. This plan shall be submitted within 180 days of the CEMS/COMS installation. A QA/QC plan shall consist of procedure and practices which assures acceptable level of monitor data accuracy, precision, representativeness, and availability.
- B. The submitted QA/QC plan for each CEMS/COMS shall not be considered as accepted until the facility receives a written notification of acceptance from DEQ.
- C. Facilities responsible for one or more CEMS/COMS used for compliance monitoring shall meet these minimum requirements and are encouraged to develop and implement a more extensive QA/QC program, or to continue such programs where they already exist. Each QA/QC program must include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities:
 - 1. Calibration of CEMS/COMS
 - a. Daily calibrations (including the approximate time(s) that the daily zero and span drifts will be checked, and the time required to perform these checks and return to stable operation)
 - 2. Calibration drift determination and adjustment of CEMS/COMS
 - a. Out-of-control period determination
 - b. Steps of corrective action
 - 3. Preventive maintenance of CEMS/COMS
 - a. CEMS/COMS information
 - 1) Manufacture
 - 2) Model number
 - 3) Serial number
 - b. Scheduled activities (check list)
 - c. Spare part inventory
 - 4. Data recording, calculations, and reporting
 - 5. Accuracy audit procedures including sampling and analysis methods
 - 6. Program of corrective action for malfunctioning CEMS/COMS

- D. A Relative Accuracy Test Audit (RATA) shall be conducted at least once every four calendar quarters. A Relative Accuracy Audit (RAA), or a Cylinder Gas Audit (CGA), may be conducted in the other three quarters but in no more than three quarters in succession. The RATA should be conducted in accordance with the applicable test procedure in 40 C.F.R. § 60 Appendix A and calculated in accordance with the applicable performance specification in 40 C.F.R. § 60 Appendix B. CGA's and RAA's should be conducted and the data calculated in accordance with the procedures outlined on 40 C.F.R. § 60 Appendix F.

If alternative testing procedures or methods of calculation are to be used in the RATA, RAA or CGA audits prior authorization must be obtained from the DEQ CEM Coordinator.

- E. Criteria for excessive audit inaccuracy.

RATA

All Pollutants except Carbon Monoxide	> 20% Relative Accuracy
Carbon Monoxide	> 10% Relative Accuracy
All Pollutants except Carbon Monoxide	> 10% of the Applicable Standard
Carbon Monoxide	> 5% of the Applicable Standard
Diluent (O ₂ & CO ₂)	> 1.0 % O ₂ or CO ₂
Flow	> 20% Relative Accuracy

CGA

Pollutant	> 15% of average audit value or 5 ppm difference
Diluent (O ₂ & CO ₂)	> 15% of average audit value or 5 ppm difference

RAA

Pollutant	> 15% of the three-run average or > 7.5 % of the applicable standard
Diluent (O ₂ & CO ₂)	> 15% of the three-run average or > 7.5 % of the applicable standard

- F. If either the zero or span drift results exceed two times the applicable drift specification in 40 C.F.R. § 60, Appendix B for five consecutive, daily periods, the CEMS is out-of-control. If either the zero or span drift results exceed four times the applicable drift specification in Appendix B during a calibration drift check, the CEMS is out-of-control. If the CEMS exceeds the audit inaccuracies listed above, the CEMS is out-of-control. If a CEMS is out-of-control, the data from that out-of-control period is not counted towards meeting the minimum data availability as required and described in the applicable subpart. The end of the out-of-control period is the time corresponding to the completion of the successful daily zero or span drift or completion of the successful CGA, RAA or RATA.
- G. A back-up monitor may be placed on an emission source to minimize monitor downtime. This back-up CEMS is subject to the same QA/QC procedure and practices as the primary CEMS. The back-up CEMS shall be certified by a PST. Daily zero-span checks must be performed and recorded in accordance with standard practices. When the primary CEMS goes down, the back-up CEMS may then be engaged to sample, analyze, and record the emission source pollutant until repairs are made and the primary unit is placed back in service. Records must be maintained on site when the back-up CEMS is placed in service, these records shall include at a minimum the reason the primary CEMS is out of service, the date and time the primary CEMS was out of service and the date and time the primary CEMS was placed back in service.

Appendix B

Enclosed Transfer Points
Updated November 30, 2022

Enclosed Transfer Points

Updated 11-30-2022

Enclosed Transfer Points Subject to 40 CFR 1350(t)(1)(v)

Equip#	Equipment Description	Transfer Point Description
325.BN01		
325.BN02	HG Limestone Bin	
325.BN03	Mill Scale Bin	
325.BN04		
325.CH01	Transfer Chute	325.BF10 to 325.BN01
325.CH02	Transfer Chute	325.BN01 to 325.AF10
325.CH03	Transfer Chute	325.AF10 to 325.WF10
325.CH04	Transfer Chute	325.WF10 to 325.BC10
325.CH05	Transfer Chute	325.BN02 to 325.AF20
325.CH06	Transfer Chute	325.AF20 to 325.WF20
325.CH07	Transfer Chute	325.WF20 to 325.BC10
325.CH08	Transfer Chute	325.BN03 to 325.WF30
325.CH09	Transfer Chute	325.WF30 to 325.BC10
325.CH10	Transfer Chute	325.BN04 to 325.WF40
325.CH11	Transfer Chute	325.WF40 to 325.BC10
325.CH12	Transfer Chute	325.HP10 to 325.BC10
325.CH13	Transfer Chute	325.HPI 1 to 325.BC10
325.CH15	Transfer Chute	325.HP15 to 325.BC10
325.CH16	Transfer Chute	325.HP16 to 325.BC10
325.CH20	Transfer Chute	325.HP18 to 325.BC10
325.CH25	Transfer Chute	325.HP20 to 325.BC10
325.CH30	Transfer Chute	325.BF20 to 325.BN03
325.CH32	Transfer Chute	325.BF30 to 325.BC10
325.CH35	Transfer Chute	325.BC10 to 325.DV10
325.CH36	Transfer Chute	325.DV10 to 326.BN01
325.CH37	Transfer Chute	325.DV10 to 326.BN02
326.BN01	Bin/Silo	Raw Mill Feed Seal Bin
326.BN02	Bin/Silo	Raw Mill Metal Rejects Bin
326.CH01	Transfer Chute	326.BN01 to 326.AF10
326.CH02	Transfer Chute	326.AF10 to 326.RM01
326.CH05	Transfer Chute	326.RM01 to 326.BC10
326.CH10	Transfer Chute	326.BC10 to 326.BE10
326.CH11	Transfer Chute	326.BE10 to 326.BC20
326.CH15	Transfer Chute	326.BC20 to 326.DG10
326.CH16	Transfer Chute	326.DG10 to 326.BN011
326.CH17	Transfer Chute	326.DG10 to 326.BN02
326.CH20	Transfer Chute	326.BN02 to 326.BC30
326.CH22	Transfer Chute	326.BC30 to 326.LS10
326.CH25	Transfer Chute	326.BC30 to 326.DG20
326.CH27	Transfer Chute	326.DG20 to 326.BC10
326.CH30	Transfer Chute	326.BF10 to 326.BC20
326.CH35	Transfer Chute	326.BF30 to 326.BC10
327.CH01	Transfer Chute	327.CN01 to 327.AS01
327.CH02	Transfer Chute	327.CN02 to 327.AS01
327.CH03	Transfer Chute	327.CN03 to 327.AS02
327.CH04	Transfer Chute	327.CN04 to 327.AS02
327.CH10	Transfer Chute	327.AS01 to 327.AS03
327.CH12	Transfer Chute	327.AS02 to 327.AS03
327.CH14	Transfer Chute	327.AS03 to 327.AS05

Enclosed Transfer Points

Updated 11-30-2022

Enclosed Transfer Points Subject to 40 CFR 1350(t)(1)(v)

Equip#	Equipment Description	Transfer Point Description
327.CH16	Transfer Chute	327.AS03 to 327.AS04
327.CH18	Transfer Chute	327.AS05 to 329.BI01
327.CH20	Transfer Chute	327.AS04 to 327.BE10
327.CH21	Transfer Chute	327.BF10 to 327.AS03
327.CH22	Transfer Chute	327.BF20 to 443.SC50
327.CH24	Transfer Chute	329.BF10 to 329.BI01
327.CH25	Transfer Chute	327.BE10 to 327.AS06
327.CH26	Transfer Chute	327.AS06 to 443.BI10
327.CH28	Transfer Chute	327.BF30 to 441.SI10
327.CH30	Transfer Chute	327.AS06 to 327.BI10
327.CH31	Transfer Chute	327.AS10 to 441.SI10
327.CH32	Transfer Chute	327.AS11 to 441.SI10
327.CH33	Transfer Chute	327.AS12 to 441.SI10
327.CH34	Transfer Chute	327.AS13 to 441.SI10
327.CH35	Transfer Chute	327.AS14 to 441.SI10
327.CH36	Transfer Chute	327.AS15 to 441.SI10
327.TD01	Transfer Duct	326.RM01 to 327.CN01,327.CN02, 327.CN03, 327.CN04
329.BI02	Bin/Silo	Proportioning Masonry Limestone Bin
329.CH01	Transfer Chute	329.BI01 to 329.BI02
329.CH02	Transfer Chute	329.BI02 to 329.SC10
329.CH04	Transfer Chute	329.SC10 to 329.PP10
329.CH10	Transfer Chute	329.BF20 to 514.SZ2
329.CH12	Transfer Chute	329.AV01 to 514.SZ2
329.TD10	Transfer Duct	329.PP10 to 39.AV01
403.BN3	CKD Bin/Silo	
403.BN4	CKD Bin/Silo	
403.BN5	CKD Bin/Silo	
403.BN6	CKD Bin/Silo	
403.BN7	Storage Bin/Silo	
403.CH10	Transfer Chute	403.BN6 to 403.SCA
403.CH11	Transfer Chute	403.SCA to 403.DV4
403.CH12	Transfer Chute	403.BN5 to 403.SC9
403.CH13	Transfer Chute	403.SC9 to 403.DV3
403.CH14	Transfer Chute	403.BN4 to 403.SC8
403.CH15	Transfer Chute	403.SC8 to 403.DV2
403.CH16	Transfer Chute	403.BN3 to 403.SC7
403.CH17	Transfer Chute	403.SC7 to 403.DV1
403.CHA	Transfer Chute	403.DV1 to 403.SCS
403.CHB	Transfer Chute	403.DV1 to 403.SC4
403.CHC	Transfer Chute	403.DV2 to 403.SCS
403.CHD	Transfer Chute	403.DV2 to 403.SC4
403.CHE	Transfer Chute	403.DV3 to 403.SCS
403.CHF	Transfer Chute	403.DV3 to 403.SC4
403.CHG	Transfer Chute	403.DV4 to 403.SCS
403.CHH	Transfer Chute	403.DV4 to 403.SC4
403.CHJ	Transfer Chute	403.SC4 to 403.MP3
403.CHK	Transfer Chute	403.SCS to 403.MP3
403.CHL	Transfer Chute	403.SCS to 403.MZI
403.CHQ	Transfer Chute	403.SC6 to 403.MZ2

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403.CHV	Transfer Chute	403.SC4 to 403.MZI
403.CHW	Transfer Duct	403.BN7 to 403.SC6
403.CL2	Transfer Duct	403.MP3 to 403.BN7
403.CLI	Transfer Duct	403.MP3 to 612.PM2
409.CH1	Transfer Chute	409.DBI to 409.DCI
409.CH10	Transfer Chute	409.BF10 to 409.DB2
409.CH2	Transfer Chute	409.DCI to 521.SXI
409.CH3	Transfer Chute	409.DCI to 409.DC3
409.CH4	Transfer Chute	409.DCI to 521.SX2
409.CH5	Transfer Chute	409.DC3 to 513.TKI
409.CH6	Transfer Chute	409.DC3 to 513.TK2
409.CH7	Transfer Chute	409.DB2 to 409.DC2
409.CH8	Transfer Chute	409.DC2 to 521.SXI
409.CH9	Transfer Chute	409.DC2 to 409.DC3
409.CHA	Transfer Chute	409.DC2 to 521.SX2
41A.CH01	Transfer Chute	41A.HP10 to 41A.BC10
41A.CH07	Transfer Chute	41A.BF10 to 41A.BC10
41A.CH09	Transfer Chute	41A.BC10 to 41A.BC20
41A.CH11	Transfer Chute	41A.BF20 to 41A.BC20
441.CH01	Transfer Chute	441.SI10 to 441.AS01
441.CH02	Transfer Chute	441.SI10 to 441.AS02
441.CH03	Transfer Chute	441.SI10 to 441.AS03
441.CH04	Transfer Chute	441.SI10 to 441.AS04
441.CH05	Transfer Chute	441.SI10 to 441.AS05
441.CH06	Transfer Chute	441.SI10 to 441.AS06
441.CH07	Transfer Chute	441.SI10 to 441.AS07
441.CH10	Transfer Chute	441.AS01 to Collection Box
441.CH11	Transfer Chute	441.AS02 to Collection Box
441.CH12	Transfer Chute	441.AS03 to Collection Box
441.CH13	Transfer Chute	441.AS04 to Collection Box
441.CH14	Transfer Chute	441.AS05 to Collection Box
441.CH15	Transfer Chute	441.AS06 to Collection Box
441.CH16	Transfer Chute	441.AS07 to Collection Box
441.CH20	Transfer Chute	Collection Box to 442.BI10
441.SI10	Blending Silo	
442.BI10	Storage Bin	
442.CH01	Transfer Chute	442.AS02 to 442.AS10
442.CH03	Transfer Chute	442.AS01 to 442.AS10
442.CH05	Transfer Chute	442.BF10 to 442.AS10
442.CH07	Transfer Chute	442.AS10 to 442.BE10
442.CH10	Transfer Chute	442.BE10 to 442.AS20
442.CH11	Transfer Chute	442.BF20 to 442.BE10
442.CH13	Transfer Chute	442.AS20 to 442.AS21
442.CH15	Transfer Duct	442.AS20 to 444.PH01
442.CH19	Transfer Duct	442.AS20 to Preheater stage 2-1
442.CH21	Transfer Chute	442.AS21 to 327.BI10
443.BI10	Storage Bin	Kiln Dust Bin
443.CH01	Transfer Chute	443.FV25 to 443.SC10
443.CH02	Transfer Chute	443.SCI0 to 443.SC15

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443.CH05	Transfer Chute	443.BF10 to 443.SC15
443.CH06	Transfer Chute	443.BF10 to 443.SC15
443.CH07	Transfer Chute	443.BF10 to 443.SC15
443.CH08	Transfer Chute	443.BF10 to 443.SC15
443.CH09	Transfer Chute	443.BF10 to 443.SC15
443.CH10	Transfer Chute	443.BF10 to 443.SC15
443.CH10	Transfer Chute	443.BF10 to 443.SC15
443.CH12	Transfer Chute	443.SC15 to 443.SC25
443.CH15	Transfer Chute	443.BF10 to 443.SC20
443.CH16	Transfer Chute	443.BF10 to 443.SC20
443.CH17	Transfer Chute	443.BF10 to 443.SC20
443.CH18	Transfer Chute	443.BF10 to 443.SC20
443.CH19	Transfer Chute	443.BF10 to 443.SC20
443.CH20	Transfer Chute	443.BF10 to 443.SC20
443.CH21	Transfer Chute	443.BF10 to 443.SC20
443.CH22	Transfer Chute	443.SC20 to 443.SC25
443.CH25	Transfer Chute	443.SC25 to 443.SC50
443.CH32	Transfer Chute	443.BF20 to 443.BI10
443.CH35	Transfer Chute	443.BI10 to 443.BI11
443.CH36	Transfer Chute	443.BI11 to 443.SC30
443.CH38	Transfer Chute	443.SC30 to 443.SC35
443.CH39	Transfer Chute	443.SC35 to 443.SC50
443.CH40	Transfer Chute	443.SC35 to 442.AS10
443.CH41	Transfer Chute	443.SC35 to 443.PP10
443.CH45	Transfer Chute	443.CT01 to 443.SC75
443.CH47	Transfer Chute	443.SC40 to 443.SC45
443.CH48	Transfer Chute	443.SC45 to 443.SC50
443.CH49	Transfer Chute	443.CH49 to 327.BE10
443.CH54	Transfer Chute	443.CT01 to 443.SC75
443.CH55	Transfer Chute	443.SC75 to 443.SC80
443.CH56	Transfer Chute	443.SC75 to 431.LS12
443.CH60	Transfer Chute	443.BF30 to 443.SC65
443.CH61	Transfer Chute	443.BF30 to 443.SC65
443.CH62	Transfer Chute	443.BF30 to 443.SC65
443.CH63	Transfer Chute	443.BF30 to 443.SC65
443.CH65	Transfer Chute	443.SC60 to 443.SC72
443.CH66	Transfer Chute	443.SC60 to 443.SC70
443.CH70	Transfer Chute	443.BF30 to 443.SC55
443.CH71	Transfer Chute	443.BF30 to 443.SC55
443.CH72	Transfer Chute	443.BF30 to 443.SC55
443.CH73	Transfer Chute	443.BF30 to 443.SC55
443.CH75	Transfer Chute	443.SC55 to 443.SC72
443.CH76	Transfer Chute	443.SC55 to 443.SC70
443.CH77	Transfer Chute	443.SC65 to 443.SC72
443.CH78	Transfer Chute	443.SC65 to 443.SC70
443.CH79	Transfer Chute	443.SC70 to 443.PP30
443.CH80	Transfer Chute	443.SC72 to 443.PP20
443.CH81	Transfer Chute	443.SC80 to 443.SC70
443.CH82	Transfer Chute	443.SC80 to 443.SC72

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443.CL10	Transfer Duct	443.PP20 to 403.BN3, 403.BN4, 403.BN5, 403.BN6
443.CL11	Transfer Duct	443.PP30 to 403.BN3, 403.BN4, 403.BN5, 403.BN6
443.PP10	Pipeline	443.PP10 to 329.BI01, 443.BF30
443.TD10	Transfer Duct	443.CT10 to 326.RM01, 331BF300
443.TD15	Transfer Duct	443.CT01 to 451.BF200
444.CH01	Transfer Chute	444.PH05 to 446.KD04
444.CH02	Transfer Chute	444.PH04 to 446.KD04
444.CH03	Transfer Chute	444.PH04 to 444.CI01
444.CH05	Transfer Chute	444.DV10 to 447.CC10
444.CH06	Transfer Chute	444.DV10 to 444.DV15
444.CH09	Transfer Chute	444.CI02 to 446.KD04
444.CH10	Transfer Chute	444.CI01 to 446.KD04
447.CH01	Transfer Chute	447.CC10 to 449.AC10
447.CH02	Transfer Chute	447.CN02 to 449.AC10
447.CH03	Transfer Chute	447.CN01 to 449.AC10
449.BI10	Clinker Storage bin	
449.CH01	Transfer Chute	449.BF10 to 449.AC10
449.CH03	Transfer Chute	449.BF20 to 533.BI11
449.CH04	Transfer Chute	449.BF30 to 449.AC20
449.CH05	Transfer Chute	449.AC10 to 449.DG10
449.CH06	Transfer Chute	449.DG10 to 533.BI1
449.CH07	Transfer Chute	449.DG10 to 449.AC20
449.CH10	Transfer Chute	449.AC20 to 533.BI11
449.CH12	Transfer Chute	449.AC20 to 533.BI10
449.CH14	Transfer Chute	449.AC20 to 449.AC30
449.CH16	Transfer Chute	449.AC20 to 449.BI10
449.CH27	Transfer Chute	449.BF40 to 449.DM1
449.CH29	Transfer Chute	449.AC30 to 449.DM1
449.CH35	Transfer Chute	449.BCOS to 449.AC40
449.CH37	Transfer Chute	449.BFSO to 449.AC40
449.CH39	Transfer Chute	449.AC40 to 449.DG20
449.CH40	Transfer Chute	449.DG20 to 449.AC20
449.CH41	Transfer Chute	449.DG20 to 449.BI10
449.CH43	Transfer Chute	449.BI10 to 449.AF10
449.CH44	Transfer Chute	449.AF20 to 409.DB2
449.CH45	Transfer Chute	449.BI10 to 449.AF10
449.CH46	Transfer Chute	449.AF10 to 409.DB1
449.CH50	Transfer Chute	449.BF70 to 449.DG50
449.CH51	Transfer Chute	449.DG50 to 449.AF20
449.CH52	Transfer Chute	449.DG50 to 449.AF10
449.CH54	Transfer Chute	449.BF60 to 449.CH39
449.CH55	Transfer Chute	449.DG60 to 449.AC20
449.CH56	Transfer Chute	449.DG60 to 449.BI10
449.CH71	Transfer Chute	449.BF31m to 449.AC30
449.DM1	Clinker Storage Dome	
44A.CH06	Transfer Chute	44A.DG10 to 531.BC10
44B.CH05	Transfer Chute	44B.SC10 to 44B.SC11
44B.CH07	Transfer Chute	44B.SC11 to 44C.BI10
44B.RM10	Coal Raw Mill	44B.RM10 to 44B.BF20

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44C.CH01	Transfer Chute	44C.BI10 to 446.KD04
44C.CH02	Transfer Chute	44C.BI10 to 444.CI01
44C.CH03	Transfer Chute	44C.BI10 to 444.CI02
44M.AV10	Alleviator	44M.BF10 to 42.AS10
44M.BN10	Hydrated Lime Bin	
44M.BN11	Hydrated Lime Bin	
44M.RF10	Rotary Feeder	44M.BU12 to 4M.RF12
44M.RF11	Rotary Feeder	44M.BU13 to 4M.RF13
44M.SX10	Hydrated Lime Bin	
502.CH2	Transfer Chute	502.FDI to 502.BCI
502.CH5	Transfer Chute	502.BC1 to Truck Loadout
502.CH6	Transfer Chute	502.BFI to 502.BCI
502.CH7	Transfer Chute	502.BF2 to Truck
502.CHI	Transfer Chute	502.HPI to 502.FDI
513.BC10	Transfer	513.BC10 to 514.CHP
513.BFI	Transfer Chute	513.BFI to 513.BCI0
513.BN3	Bin/Silo	
513.BN4	Bin/Silo	
513.CH1	Transfer Chute	513.TKI to 513.WF4
513.CH2	Transfer Chute	513.TK2 to 513.WF5
513.CH2	Transfer Chute	513.TK2 to 513.WF5
513.CH5	Transfer Chute	513.BN3 to 513.WF2
513.CH6	Transfer Chute	513.WF2 to 513.BCI
513.CH7	Transfer Chute	513.BN4 to 513.WF3
513.CH8	Transfer Chute	513.WF3 to 513.BCI
513.CHA	Transfer Chute	513.BF1 to 513.BC10
513.CHB	Transfer Chute	513.WF4 to 513.BC10
513.CHC	Transfer Chute	513.WF5 to 513.BC10
513.CHD	Transfer Chute	513.BC10 to 514.CHP
513.CHI	Transfer Chute	513.TKI to 513.WF4
513.TK2	Tank	
513.TKI	Tank	
513.WF4	Transfer Chute	513.WF4 to 513.BC10
513.WF5	Transfer Chute	513.WF5 to 513.BC10
514.BNI	Bin/Silo	
514.CH2	Transfer Chute	514.ASI to 514.BEI
514.CH3	Transfer Chute	514.BF3 to 514.ASI
514.CH4	Transfer Chute	514.BEI to 514.AS2
514.CHB	Transfer Chute	514.AS6 to 515.HPI
514.CHC	Transfer Chute	514.CHI to 514.CQ2
514.CHG	Transfer Chute	514.AS2 to 514.SZ2
514.CHH	Transfer Chute	514.SZ2 to 514.AS6
514.CHK	Transfer Chute	514.SZ2 to 514.AS5
514.CHI	Transfer Chute	514.BMI to 514.ASI
514.CHI	Transfer Chute	514.AS6 to 514.CHC, 514CHQ
514.CHL	Transfer Chute	514.AS5 to 514.CHP
514.CHM	Transfer Chute	514.CQI to 514.CQ2
514.CHN	Transfer Chute	514.CQ2 to 515.HPI
514.CHO	Transfer Chute	514.CQI to 515.HPI

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514.CHP	Transfer Chute	514.CHP to 514.BMI
514.CHQ	Transfer Chute	514.CHI to 514.CQI
514.CHS	Transfer Chute	514.BF2 to 514.ASI
514.CHT	Transfer Chute	514.BNI to 523.WF5
515.HPI	Hopper	515.HPI to 515.MPI
515.MPI	Pump	515.MPI to 521.BNI or bulk silos
521.BNI	Bin/Silo	
521.CH2	Transfer Chute	521.SXI to 523.WF3
521.CH5	Transfer Chute	521.BFI to 521.SXI
521.CH6	Transfer Chute	521.BF2 to 521.SX2
521.CH7	Transfer Chute	521.BNI to 524.SCI
521.CHI	Transfer Chute	521.SX2 to 523.WF2
521.SX2	Bin/Silo	
521.SXI	Bin/Silo	
523.BNI	Bin/Silo	
523.CH2	Transfer Chute	523.WF3 to 523.BC2
523.CH4	Transfer Chute	523.WF2 to 523.BC2
523.CH5	Transfer Chute	523.WFI to 523.BEI
523.CH6	Transfer Chute	523.BEI to 523.BC5
523.CH8	Transfer Chute	523.BF2 to 523.CH4
523.CH9	Transfer Chute	523.BC2 to 524.CHK
523.CHA	Transfer Chute	523.WF5 to 523.BC5
523.CHB	Transfer Chute	523.BC5 to 524.CHK
523.CHI	Transfer Chute	523.BNI to 523.WFI
524.CH2	Transfer Chute	524.ASI to 524.BEI
524.CH3	Transfer Chute	524.BFI to 524.BEI
524.CH4	Transfer Chute	524.BEI to 524.AS3
524.CH5	Transfer Chute	524.AS3 to 524.SZ2
524.CH6	Transfer Chute	524.SZ2 to 524.AS4
524.CH7	Transfer Chute	524.AS4 to #4 Mill Feed Chute
524.CH8	Transfer Chute	524.BEI to 524.AS2
524.CH9	Transfer Chute	524.SZ2 to 524.AS5
524.CHA	Transfer Chute	524.AS7 to to 525.HPI
524.CHB	Transfer Chute	524.AS5 to to 525.HPI
524.CHC	Transfer Chute	524.AS5 to 524.CQ2
524.CHD	Transfer Chute	524.AS2 to 524.SZI
524.CHE	Transfer Chute	524.SZI to 524.AS6
524.CHF	Transfer Chute	524.SZI to #4 Mill Feed Chute
524.CHG	Transfer Chute	524.SZI to 524.AS7
524.CHH	Transfer Chute	524.AS7 to 524.CQI
524.CHJ	Transfer Chute	524.BF2 to 525.HPI
524.CHK	Transfer Chute	524.CHK to 524.BMI
524.CHI	Transfer Chute	524.BMI to 524.ASI
524.CHI	Transfer Chute	524.CQ2 to 524.CQI
524.CHN	Transfer Chute	524.AS9 to to 525.HPI
524.CHO	Transfer Chute	524.AS8 to 525.HPI
524.CHP	Transfer Chute	524.SCI to 523.BC2
531.CH01	Transfer Chute	531.BC10 to 531.DG10
531.CH02	Transfer Chute	531.DG10 to 531.BC20

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531.CH03	Transfer Chute	531.DG10 to 533.BI12
531.CH05	Transfer Chute	531.BC20 to 533.BI13
531.CH07	Transfer Chute	531.BF20 to 533.BI13
531.CH7	Transfer Chute	531.CH7 to 531.BC10
531.CH09	Transfer Chute	531.CH7 to 531.BC10
533.BI12	Limestone Bin/Silo	
533.BI13	Gypsum Bin/Silo	
533.BI10	Clinker Bin/Silo	
533.BI11	Clinker Bin/Silo	
533.CH01	Transfer Chute	533.BI10 to 533.LS1
533.CH02	Transfer Chute	533.BI10 to 533.AW10
533.CH04	Transfer Chute	533.AW10 to 533.DB10
533.CH05	Transfer Chute	533.BI10 to 533.AW20
533.CH07	Transfer Chute	533.AW20 to 533.DB10
533.CH09	Transfer Chute	533.BF10 to 533.DB10
533.CH11	Transfer Chute	533.BI12 to 533.WF30
533.CH13	Transfer Chute	533.WF30 to 533.DB10
533.CH15	Transfer Chute	533.BI13 to 533.WF40
533.CH17	Transfer Chute	533.WF40 to 533.DB10
534.BI10	Bin/Silo	
534.CH01	Transfer Chute	534.BC10 to 534.DG10
534.CH02	Transfer Chute	534.DG10 to 534.RM10
534.CH03	Transfer Chute	534.DG10 to 531.BI12
534.CH04	Transfer Duct	534.DB10 to 534.BC10
534.CH05	Transfer Chute	534.BF10 to 534.BE10
534.CH07	Transfer Chute	534.BI10 to 534.BC20
534.CH09	Transfer Chute	534.BF20 to 534.BC30
534.CH11	Transfer Chute	534.BC20 to 534.DG20
534.CH13	Transfer Chute	534.DG20 to 534.BC30
534.CH15	Transfer Chute	534.RM10 to 534.BC30
534.CH17	Transfer Chute	534.BC30 to 534.BE10
534.CH19	Transfer Chute	534.BE10 to 534.BC10
535.CH01	Transfer Chute	535.SC05 to 535.SC10
535.CH03	Transfer Chute	535.SC10 to 535.AS10
535.CH05	Transfer Chute	535.CN10 to 535.AS10
535.CH07	Transfer Chute	535.CN11 to 535.AS10
535.CH09	Transfer Chute	535.AS10 to 535.CL10
535.CH11	Transfer Chute	535.BF20 to 535.AS10
535.CH13	Transfer Chute	535.AS10 to 535.PP10
535.CH15	Transfer Chute	535.CL10 to 531.AS20
535.CH16	Transfer Duct	535.AS20 to 535.PP10
611.CH1	Transfer Chute	611.BF1 to Silo 21
611.CH2	Transfer Chute	611.BF1 to Silo 19
611.CH10	Transfer Chute	611.AS20 to 611.BE10
611.CH11	Transfer Chute	611.AS19 to 611.BE10
611.CH15	Transfer Chute	611.BF10 to 611.BE10
611.CH17	Transfer Chute	611.BE10 to 611.AS14
611.CH19	Transfer Chute	611.BF20 to Silo 21
611.CH20	Transfer Chute	611.AS14 to 611.AS08

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611.CH21	Transfer Chute	611.AS09 to Silo 18
611.CH22	Transfer Chute	611.AS14 to 611.AS17
611.CH23	Transfer Chute	611.AS07 to Silo 17
611.CH25	Transfer Chute	611.AS14 to 611.B20
611.CH27	Transfer Chute	611.BF30 to 611.B20
611.CH29	Transfer Chute	Silo 20 to Airstride 611.AS20
611.CH3	Transfer Chute	611.AS17 to 611.LS17
611.CH30	Transfer Chute	Silo 19 to 611.AS19
611.CH31	Transfer Chute	611.BI10 to 611.LS10
611.CH32	Transfer Chute	611.AS21 to 611.AS19
612.CH14	Transfer Chute	612.ASB and 612.ASD to 612.MP2
612.CH2	Transfer Chute	Silo 2 to 612.AS4
612.CH3	Transfer Chute	Silo 3 to 612.AS2
612.CH4	Transfer Chute	Silo 11 to 612.AS1
612.CH5	Transfer Chute	Silo 7 to 612.SC9
612.CH6	Transfer Chute	Silo 4 to 612.BE2
612.CH7	Transfer Chute	Silo 5 to 612.CH8
612.CH8	Transfer Chute	Silo 6 to 612.BE1
612.CH9	Transfer Chute	Silo 10 to 612.CH8
612.CHA	Transfer Chute	612.AS3 to 621.CHB
612.CHB	Transfer Chute	612.AS4 to 621.BE1
612.CHC	Transfer Chute	612.AS2 to 621.CHD
612.CHD	Transfer Chute	612.AS1 to 621.CHB
612.CHG	Transfer Chute	612.BE2 to 612.AS5
612.CHH	Transfer Chute	612.AS5 to 612.AS6
612.CHJ	Transfer Chute	612.BE1 to 612.SC10
612.CHI	Transfer Chute	Silo 1 to 612.AS3
612.CHM	Transfer Chute	612.AS6 to 612.MP 1
612.CHN	Transfer Chute	612.SC9 to 621.MP1
612.MPI	Pump	612.MP1 to 612.CL1
611.CH5	Transfer Chute	Silo S21 to 611.MP1
621.CH1	Transfer Chute	621.BF5 to Bin 27
621.CH2	Transfer Chute	621.BF2 to 621.BN01
621.CH3	Transfer Chute	Bin B27 to 621.ASA
621.CH4	Transfer Chute	Bin B26 to 621.ASB
621.CH5	Transfer Chute	Silo 12 to 621.AS12
621.CH6	Transfer Chute	Silo 14 to 621.AS14
621.CH9	Transfer Chute	Silo 13 to 621.AS13
621.CHA	Transfer Chute	Silo 15 to 621.AS15
621.CHB	Transfer Chute	621.BE1 to 621.ASC
621.CHC	Transfer Chute	621.ASC to 621BN01
621.CHH	Transfer Chute	Truck Loadout Bin TL4 to 621.AS7
621.CHJ	Transfer Chute	Truck Loadout Bin TL2 to 621.AS9
621.CHK	Transfer Chute	Truck Loadout Bin TL1 to 621.AS9
621.CHI	Transfer Chute	Truck Loadout Bin TL3 to 621.AS7
621.CHL	Transfer Chute	Truck Loadout Bin TL5 to 621.AS8
621.CHM	Transfer Chute	621.AS7 and 621.AS9 to Truck Loadout
621.CHN	Transfer Chute	621.AS8 to Truck Loadout
621.CHO	Transfer Chute	621.ASA and 621.ASB to Truck Loadout

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Enclosed Transfer Points Subject to 40 CFR 1350(t)(1)(v)

Equip#	Equipment Description	Transfer Point Description
621.CHP	Transfer Chute	621.BF8 to 621.BNOS
621.CHR	Transfer Chute	621.ASA and 621.ASB to Truck Loadout
621.CL1	Cement Line	621.MP1 to 621.CL2 or 621.CL3
621.CL2	Cement Line	621.CL1 to Silos 12-16
621.CL3	Cement Line	621.CL1 to 621.CL4 or 621.CL5
621.CL4	Cement Line	621.CL3 to Bin 26 & 27
621.CL5	Cement Line	621.CL3 to Truck Loading Tanks TL3, 4 & 5
621.MP1	Pump	621.MP1 to 621.CL1
631.CH10	Transfer Chute	631.SX22 to 631.AS10
631.CH11	Transfer Chute	631.SX22 to 631.AS11
631.CH12	Transfer Chute	631.SX22 to 631.AS12
631.CH13	Transfer Chute	631.SX23 to 631.AS13
631.CH14	Transfer Chute	631.SX23 to 631.AS14
631.CH15	Transfer Chute	631.SX23 to 631.AS15
631.CH16	Transfer Chute	631.AS10 to 631.LS10
631.CH17	Transfer Chute	631.AS11 to 631.LS11
631.CH18	Transfer Chute	631.AS12 to 631.LS12
631.CH19	Transfer Chute	631.AS13 to 631.LS10
631.CH20	Transfer Chute	631.AS14 to 631.LS11
631.CH21	Transfer Chute	631.AS15 to 631.LS12
631.CH22	Transfer Chute	631.BF20 to 631.LS10
631.CH23	Transfer Chute	631.BF25 to 631.LS11
631.CH24	Transfer Chute	631.BF30 to 631.LS12
631.CH25	Transfer Chute	631.LS10 to Truck
631.CH26	Transfer Chute	631.LS11 to Truck
631.CH27	Transfer Chute	631.LS12 to Truck

Appendix C

AP-42 Section 13.2.4

13.2.4 Aggregate Handling And Storage Piles

13.2.4.1 General

Inherent in operations that use minerals in aggregate form is the maintenance of outdoor storage piles. Storage piles are usually left uncovered, partially because of the need for frequent material transfer into or out of storage.

Dust emissions occur at several points in the storage cycle, such as material loading onto the pile, disturbances by strong wind currents, and loadout from the pile. The movement of trucks and loading equipment in the storage pile area is also a substantial source of dust.

13.2.4.2 Emissions And Correction Parameters

The quantity of dust emissions from aggregate storage operations varies with the volume of aggregate passing through the storage cycle. Emissions also depend on 3 parameters of the condition of a particular storage pile: age of the pile, moisture content, and proportion of aggregate fines.

When freshly processed aggregate is loaded onto a storage pile, the potential for dust emissions is at a maximum. Fines are easily disaggregated and released to the atmosphere upon exposure to air currents, either from aggregate transfer itself or from high winds. As the aggregate pile weathers, however, potential for dust emissions is greatly reduced. Moisture causes aggregation and cementation of fines to the surfaces of larger particles. Any significant rainfall soaks the interior of the pile, and then the drying process is very slow.

Silt (particles equal to or less than 75 micrometers [μm] in diameter) content is determined by measuring the portion of dry aggregate material that passes through a 200-mesh screen, using ASTM-C-136 method.¹ Table 13.2.4-1 summarizes measured silt and moisture values for industrial aggregate materials.