



# ARKANSAS

## ENERGY & ENVIRONMENT

December 27, 2022

Via email to: mary.fleming@sunoco.com & First Class Mail

Mary Fleming  
EHS Lead Specialist  
Sunoco, LLC - Sunoco North Little Rock Terminal  
12625 Calloway Cemetery Road  
Euless, TX 76040

Re: Notice of Final Permitting Decision; Permit No. 0590-AOP-R23

Dear Mr. Fleming,

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:

Sunoco, LLC - Sunoco North Little Rock Terminal  
2207 Central Airport Road  
North Little Rock, AR 72117

Permit Number: 0590-AOP-R23

Permitting Decision: approval with permit conditions as set forth in final Permit No. 0590-AOP-R23

Accessing the Permitting Decision:

<https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/Air/0590-AOP-R23.pdf>.

Accessing the Statement of Basis:

<https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/Air/0590-AOP-R23-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 blue ink, appearing to read "Dw", with a long horizontal flourish extending to the right.

David Witherow, P.E.  
Associate Director, Office of Air Quality, Division of Environmental Quality  
5301 Northshore Drive, North Little Rock, AR 72118-5317

Enclosure: Certificate of Service

**CERTIFICATE OF SERVICE**

I, Natasha Oates, hereby certify that the final permit decision notice has been mailed by first class mail to Sunoco, LLC - Sunoco North Little Rock Terminal, 12625 Calloway Cemetery Road, Euless, TX, 76040, on this 27th day of December, 2022.

*Natasha Oates*

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Natasha Oates, AA, Office of Air Quality



## DIVISION OF ENVIRONMENTAL QUALITY

# OPERATING AIR PERMIT

**PERMIT NUMBER:** 0590-AOP-R23

**IS ISSUED TO:**

Sunoco LLC - Sunoco North Little Rock Terminal  
2207 Central Airport Road  
North Little Rock, AR 72117  
Pulaski County  
**AFIN:** 60-00440

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:

December 27, 2022 AND December 26, 2027

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

**Signed:**

A handwritten signature in blue ink, appearing to read "Dw", is written over a horizontal line.

David Witherow, P.E.  
Associate Director, Office of Air Quality  
Division of Environmental Quality

December 27, 2022

Date

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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 <sub>x</sub>	Nitrogen Oxide
NSPS	New Source Performance Standards
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter Equal To Or Smaller Than Ten Microns
PM <sub>2.5</sub>	Particulate Matter Equal To Or Smaller Than 2.5 Microns
SNAP	Significant New Alternatives Program (SNAP)
SO <sub>2</sub>	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: Sunoco LLC - Sunoco North Little Rock Terminal

AFIN: 60-00440

PERMIT NUMBER: 0590-AOP-R23

FACILITY ADDRESS: 2207 Central Airport Road  
North Little Rock, AR 72117

MAILING ADDRESS: 12625 Calloway Cemetery Road  
Euless, TX 76040

COUNTY: Pulaski County

CONTACT NAME: Mary Fleming

CONTACT POSITION: EHS Lead Specialist

TELEPHONE NUMBER: (817) 354-2710

REVIEWING ENGINEER: Alexander Sudibjo

UTM North South (Y): Zone 15: 3847967.45 m

UTM East West (X): Zone 15: 575270.69 m

## SECTION II: INTRODUCTION

### Summary of Permit Activity

Sunoco, LLC owns and operates the Sunoco North Little Rock refined fuels terminal located at 2207 Central Airport Road in North Little Rock. This is a Title V permit renewal for this facility. With this renewal, the facility is correcting the annual VOC emissions from the loading rack. There are no changes to the operation of the facility. The facility's permitted annual emissions are increasing by 0.3 tpy VOC.

### Process Description

The North Little Rock Terminal receives, stores, and loads refined petroleum products. The facility receives diesel fuel and gasoline products (including conventional gasoline and diesel additives, ethanol, biodiesel, and jet fuel) via pipeline, railcar, or tank trucks. Products are stored in storage tanks, loaded onto tank trucks and transported to various customers. The terminal also has a butane blending process to adjust the RVP of gasoline prior to product delivery into tank trucks.

#### **Controlled Tank Group: Tanks #1, #2, #3, #5, #6, #7, #8, #9, #10, #11 and #12 (RVP 13.5 Gasoline or Lower Vapor Pressure)**

All tanks are internal floating roof (IFR) design with a mechanical shoe seal.

#### **Vertical Fixed Roof Tank Group: Tanks #4, #18, #19, #33, #34, #35**

SN-18 (Tank #18), SN-19 (Tank #19), SN-26 (Tank #33), SN-27 (Tank #34), and SN-28 (Tank #35) are each 20,000 gallon vertical fixed roof tanks. SN-04 (Tank #4) is a 1,899,110 gallon vertical fixed roof tank which was installed in 1980.

#### **Loading Rack: SN-11**

At the three loading racks, products are transferred from the storage tanks to tank trucks via a total of eight lanes. An ethanol truck loading/unloading station is also included at one of the racks. All three loading racks and eight loading lanes may be used for products with vapor pressures up to RVP 13.5 gasoline. This configuration limits loading to 300,000 gal/hr of gasoline (RVP 13). Vapors from filling are collected through a vapor recovery system.



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### 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
40 C.F.R. Part 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. Part 60, Subpart XX - <i>Standards of Performance for Bulk Gasoline Terminals</i>
40 C.F.R. Part 63, Subpart BBBB - <i>National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities</i>
40 C.F.R. Part 63, Subpart ZZZZ - <i>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>
40 C.F.R. Part 68 - <i>Chemical Accident Prevention Provisions</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				
Description	Source Number	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	0.5	0.2
		PM <sub>10</sub>	0.5	0.2
		PM <sub>2.5</sub>	See Note*	
		SO <sub>2</sub>	0.2	0.2
		VOC	1,297.7	130.4
		CO	9.8	2.6
		NO <sub>x</sub>	8.0	2.1
HAPs		Total HAPs	---	2.77

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EMISSION SUMMARY				
Description	Source Number	Pollutant	Emission Rates	
			lb/hr	tpy
Controlled Tank Group NOTE 1	All (01, 02, 03, 05, 13, 14, 16, 17, 23, 25, 31)	VOC Total HAPs	--- ---	72.4 1.50
Controlled Tank 1	01	VOC Total HAPs	53.9 1.12	--- ---
Controlled Tank 2	02	VOC Total HAPs	97.9 2.04	--- ---
Controlled Tank 3	03	VOC Total HAPs	97.9 2.04	--- ---
Controlled Tank 5	05	VOC Total HAPs	163.0 3.39	--- ---
Controlled Tank 6	13	VOC Total HAPs	91.7 1.91	--- ---
Controlled Tank 7	14	VOC Total HAPs	26.1 0.55	--- ---
Controlled Tank 8	16	VOC Total HAPs	163.0 3.39	--- ---
Controlled Tank 9	17	VOC Total HAPs	163.0 3.39	--- ---
Controlled Tank 10	23	VOC Total HAPs	113.2 2.35	--- ---
Controlled Tank 11	25	VOC Total HAPs	163.0 3.39	--- ---
Controlled Tank 12	31	VOC Total HAPs	113.2 2.35	--- ---
Vertical Fixed Tank Group NOTE 2	All (04, 18, 19, 26, 27, 28)	VOC Total HAPs	--- ---	1.0 0.08
Vertical Fixed Tank 4	04	VOC Total HAPs	0.2 0.02	--- ---
Vertical Fixed Tank 18	18	VOC Total HAPs	0.1 0.01	--- ---
Vertical Fixed Tank 19	19	VOC Total HAPs	0.1 0.01	--- ---
Vertical Fixed Tank 33	26	VOC Total HAPs	0.1 0.01	--- ---

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EMISSION SUMMARY				
Description	Source Number	Pollutant	Emission Rates	
			lb/hr	tpy
Vertical Fixed Tank 34	27	VOC	0.1	---
		Total HAPs	0.01	---
Vertical Fixed Tank 35	28	VOC	0.1	---
		Total HAPs	0.01	---
Loading Rack	11	VOC	49.5	55.4
		Total HAPs	2.57	1.15
Fugitive Emissions	15	VOC	0.3	1.2
		Total HAPs	0.01	0.02
(325HP CI) North Emergency Generator Pre-2006	29	PM	0.3	0.1
		PM <sub>10</sub>	0.3	0.1
		SO <sub>2</sub>	0.1	0.1
		VOC	0.8	0.2
		CO	6.1	1.6
		NO <sub>x</sub>	5.0	1.3
(195HP CI) South Emergency Generator Pre-2006	30	Total HAPs	0.01	0.01
		PM	0.2	0.1
		PM <sub>10</sub>	0.2	0.1
		SO <sub>2</sub>	0.1	0.1
		VOC	0.5	0.2
		CO	3.7	1.0
NO <sub>x</sub>	3.0	0.8		
Total HAPs	0.01	0.01		

NOTE 1: For the Controlled Tank Group: The hourly emissions shown are the maximum at each tank during a filling event (2-hour refill). Annual emissions include rim seal losses, withdrawal losses, deck fitting losses, working losses, and roof landing (standing and filling loss) losses. Annual emissions are bubbled.

NOTE 2: For the Vertical Fixed Tank Group: Annual emissions are bubbled.

\*PM<sub>2.5</sub> limits are source specific, if required. Not all sources have PM<sub>2.5</sub> limits.

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### **SECTION III: PERMIT HISTORY**

Permit #0590-A was issued in 1980. It permitted the usage of three gasoline storage tanks, one diesel storage tank, and one truck loading rack.

Permit #0590-AR-1 was issued in March 1985 to install a second truck loading rack and an 80,000 barrel gasoline storage tank.

Permit #0590-AR-2 was issued in 1988 in order to document several sources installed in 1985, but not listed in the permit.

Permit #0590-AR-3 was issued in March 1990 for the installation and operation of a 45,000 bbl internal floating roof tank for the storage of gasoline, a 45,000 bbl cone roof tank for the storage of diesel oil, four 12,000 gallon cone roof tanks for the storage of ethanol, and one alcohol loading rack.

Permit #0590-AR-4 was issued in September 1992 to allow the facility to install and operate an air stripper. The air stripper was installed and began operation in January 1993 as part of a treatment system for tank bottom water, which contains hydrocarbons.

Permit #0590-AR-5 was issued in January 1994 to correct discrepancies between actual equipment located at the facility and equipment listed in previous permits.

Permit #0590-AR-6 was issued in October 1994 to document the addition of two bulk fuel storage tanks, to adjust the allowable emission rates for facility fugitive equipment leaks, and to adjust the allowable throughput and material vapor pressure for three existing storage tanks.

Permit #0590-AOP-R0 was issued on August 17, 1999, as the first operating air permit for this facility under the requirements of Regulation #26 (Title V). Under this permit, the allowable fuel throughput at the facility was increased and HAP emissions were quantified.

Permit #0590-AOP-R1 was issued on March 16, 2000 as a part of the appeal resolution between the Department and the facility. In the resolution, the facility has determined a bottleneck of 170.5 mgal/hr for the loading rack based on three loading lanes. It was determined that the facility had not triggered the requirements of 40 CFR Part 63, Subpart R-National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations); therefore, the compliance plan was removed from the permit. Additionally, the oil/water separator was reclassified as an insignificant source. HAP concentration tables and testing requirements have been added to the Plantwide Conditions to demonstrate compliance with the HAP emissions at the facility.

Permit #0590-AOP-R2 was issued on May 6, 2002 and allowed the facility to change the seal on Tank #6 from two seals mounted one above the other to a mechanical shoe seal, and to pre-approve changing Tank #7 to a mechanical shoe seal should its primary/secondary seals begin to deteriorate. Total increase in VOC emissions will be less than 0.1 tons per year.

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- According to Plantwide Condition #9, the facility, upon demonstration that it is in compliance with Plantwide Conditions #7 and #8, may petition the Department for less frequent gasoline sampling requirements. The facility has demonstrated full compliance with these conditions. As of Permit #590-AOP-R2, the facility shall only be required to sample the gasoline once every twelve months.

Permit #0590-AOP-R3 was issued on December 6, 2002 and allowed the facility to increase diesel throughput to 175,000,000 gallons per year. Tank #1 (SN-01), Tank #4 (SN-04), and the East and West Loading Racks with a flare (SN-11) will be affected by the new throughput limit. Total increase in emissions will be 0.2 tons per year of VOC and 0.3 tons per year of NO<sub>x</sub>.

Permit #0590-AOP-R4 was issued on June 26, 2003. The modification allowed the facility to construct two 80,000 barrel (3,360,000 gallon) tanks to store gasoline or lower vapor pressure products, add an additional fueling lane with six additional loading arms, increase hourly loading rack throughput to 210 mgal/hr, update the maximum allowable liquid concentration of benzene based on 210 mgal/hr for the maximum flow rate at the loading rack Plantwide Condition #7, increase VOC and HAP fugitive emissions due to the increase in the number of valves, flanges and pump seals from the installation of the new equipment, and update hourly and annual facility-wide VOC and HAP emission rates due to decreasing the permitted concentration of benzene in the fuel by 20%, or to 5,600 mg Benzene/kg of fuel.

- With the issuance of #590-AOP-R4 ATT's petroleum fuel storage capacity exceeded 300,000 bbl. Since the facility is also over 100 tpy for VOC it is now one of the 28 listed sources and is classified as a PSD major source for VOC.

Permit #0590-AOP-R5 was issued April 19, 2004. The permit was the first Title V Renewal issued to ATT. The renewal included modifications to allow the facility to increase annual throughput of jet fuel by 75,000,000 gal, increase VOC and HAP fugitive emissions due to the increase in the number of valves, flanges, and pump seals from the installation of new equipment, install a second oil/water separator (insignificant activity), and make a change in the types of fuel stored in SN-13, SN-14, and SN-16. The emissions associated with the modifications are less than 0.01 lb/hr and 1.05 tpy of VOC. Annual diesel and gasoline throughputs will not change at the loading rack. Tank #6 (SN-13) and Tank #7 (SN-14) are now used to store jet fuel. Tank #8 (SN-16) is now used to store diesel fuel. The changes in service for these tanks were made in accordance with Plantwide Condition #19. When Permit #590-AOP-R4 was issued, ATT was approved to install a new loading lane and additional loading arms at the existing loading rack. After the permit was issued, ATT discovered some of the underground piping could be damaged by traffic on the proposed loading lane. The proposed loading lane and arms were installed at a separate location at the facility, adjacent to Tank #8 and Tank #9.

Permit #0590-AOP-R6 was issued on August 2, 2005. The modification allowed the facility to increase the annual gasoline throughput from 410,000,000 gallons to 450,000,000 gallons; route gasoline through the recently installed loading lanes; increase the hourly loading rate from 210,000 gal/hr to 215,000 gal/hr; increase the number of pump seals from 50 to 90; and reduce the maximum allowable benzene concentration in the gasoline from 5,600 mg/kg to 5,000

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mg/kg. The emissions increase associated with the modifications for VOC, CO, NO<sub>x</sub>, and HAPs were 12.1 tpy, 1.6 tpy, 0.3 tpy, and 0.30 tpy, respectively. ATT's is classified as a PSD Major Source because its petroleum storage capacity exceeds 300,000 bbls, and its VOC emissions exceed 100 tpy. PSD review was not triggered because there was no significant increase for any pollutant.

Permit #0590-AOP-R7 was issued on January 26, 2006. This modification allowed the replacement of the existing Tank #2 seal system with a mechanical shoe seal as allowed under 40 CFR Part 60 (NSPS) Subpart Ka. The replacement resulted in a permitted emission increase of 2.8 tons per year of VOC.

Permit #0590-AOP-R8 was issued on August 16, 2006. This modification increased diesel throughput and granted the installation of a 20,000 gallon vertical fixed roof tank.

Permit #0590-AOP-R9 was issued on January 10, 2007. This modification allowed an increase in annual bio-diesel throughput from 120,000 gallons to 980,000 gallons. This permit action grants a VOC increase to Tank #18. Therefore, this permit action grants a net VOC increase to Tank #18. Therefore, this permit action grants a net VOC increase of 0.1 tons of VOC per year.

Permit #0590-AOP-R10 was issued on March 19, 2007. This modification allowed the installation of Tank #19, a 20,000 gallon vertical fixed roof bio-diesel storage tank (SN-19). Permitted VOC increased by 0.1 tpy.

Permit #0590-AOP-R11 was issued on December 07, 2007. ATT revised VOC, CO, NO<sub>x</sub>, and HAP emission estimates which were based on standard industry factors for gasoline and testing. ATT did not increase in fuel throughput. Two insignificant activities, a 550 gallon red dye tank and a 4,000 gallon gasoline additive tank, were added. ATT restricted Tank #6 (SN-13) and Tank #7 (SN-14) to store only jet fuel and Tank #9 (SN-17) to store only diesel fuel. Permitted CO and NO<sub>x</sub> emissions increased by 0.9 tpy and 0.2 tpy, respectively. Permitted VOC emissions which also includes HAP emissions decreased by 77.7 tpy.

Permit #0590-AOP-R12 was issued on June 12, 2008. ATT installed (1) 50,000 barrel internal floating roof ethanol storage tank, added a loading lane at the loading racks (SN-11), and constructed an ethanol railcar unloading station at SN-11. ATT increased the total ethanol received to 45,000,000 gallons per year. Permitted VOC emission limits increased by 0.7 tpy.

Permit #0590-AOP-R13 was issued on March 11, 2009. ATT submitted a Title V renewal application with modifications: a 3,360,000 gallon gasoline storage tank (SN-25), a two lane (two arms per lane) diesel/bio-diesel loading rack (SN-24), increased gasoline throughput to 675,000,000 gal/yr, diesel throughput to 300,000,000 gal/yr, ethanol throughput to 120,000,000 gal/yr, and bio-diesel throughput to 1,200,000 gal/yr, accounted for emissions from floating roof landings, revised the emission limits for fugitive emissions (SN-15) due to increased number of pipe fittings, and added seven insignificant activities to the permit. ATT combined the emissions from SN-24 with SN-11 and re-designated both sources as SN-11. Due to these changes, SN-11

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hourly gasoline throughput increased to 301,000 gal/hr. Overall, the permitted VOC, CO, and NO<sub>x</sub> emissions increased by 50.7 tpy, 9.7 tpy, and 1.8 tpy, respectively.

Permit #0590-AOP-R14 was issued on November 20, 2009. Arkansas Terminaling and Trading (ATT) requested a permit modification to increase the number of roof landing events for all floating roof tanks and revise the temperature of the tank contents used to calculate emissions. Permitted VOC emissions increased by 36.9 tpy.

Permit #0590-AOP-R15 was issued on August 1, 2012. Arkansas Terminaling and Trading (ATT) requested a minor modification for their permit which included:

- Modified the primary tank seal for gasoline storage tank #3 (SN-03) to a mechanical shoe type primary seal and no secondary seal was mounted;
- Converted three ethanol tanks (Tanks #20, #21, and #22) to biodiesel as SN-26, SN-27, and SN-28;
- Increased the permitted potential biodiesel throughput from 1,200,000 gallons per year to 15,000,000 gallons per year;
- Included HAP emission limits for SN-15 in the permit;
- Revised the roof landings requirements in Specific Condition #8;
- And increased fugitive VOC emissions based on updated component counts.

The total permitted annual emission rate limit changes associated with this modification included: + 3.3 tpy VOC, + 0.019 tpy for Hexane, and a small increase in the other HAP's.

Permit #0590-AOP-R16 was issued on November 25, 2013. Arkansas Terminaling and Trading (ATT) requested a renewal and a modification to their permit to:

- Group all internal floating roof tanks into one emissions group;
- Group all vertical fixed roof tanks into one emissions group;
- Remove the throughput limit of jet fuel;
- Remove the throughput limit of bio-diesel fuel;
- Increase the annual throughput limit of distillate fuels to 600,000,000 gallons;
- Increase the annual throughput limit of RVP 13 gasoline or lower vapor pressure products to 795,000,000 gallons;
- Install a Vapor Recovery System (VRS) to replace the ground flare on the loading rack;
- Update emissions for the loading rack and fugitive emissions to reflect the change in throughput; and
- Permit two existing emergency generators (SN-29 and SN-30) that were previously listed as insignificant activities.

The total permitted annual emission rate limit changes associated with this renewal and modification included: +0.2 tpy PM/PM<sub>10</sub>, +0.2 tpy SO<sub>2</sub>, -51.2 tpy VOC, -25.9 tpy CO, -3.2 tpy NO<sub>x</sub>, -0.21 tpy Benzene, -0.576 tpy Toluene, -0.0869 tpy Ethylbenzene, -0.4238 tpy Xylene, -0.379 tpy Hexane, and -0.3049 tpy 2,2,4-Trimethylpentane.

Permit #0590-AOP-R17 was issued on November 19, 2014. Arkansas Terminaling and Trading (ATT) requested a minor modification to their permit to add a butane blending process which consists of adding one (1) 60,000 gallon butane storage tank and installing additional piping,

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valves, pumps, connections, etc. to the gasoline piping. The total annual permitted emission rate limit changes associated with this permit includes +0.6 tpy VOC.

Permit #0590-AOP-R18 was issued on December 31, 2015. This modification is to add one (1) 80,000-barrel (3,360,000 gallon) internal floating roof (IFR) storage tank to the control tank group, adjust the fugitive emission component count to reflect the new tank piping, increase the ethanol throughput from 120,000,000 gallons per year to 212,000,000 gallons per year, adjust the emissions from the Vapor Recovery Systems (VRS) to reflect the 10 mg.L control efficiency of the VRS, change the NAICS code and increase the maximum winter Reid Vapor Pressure to RVP 13.5. Permitted VOC emissions will increase by 5.7 tons/year (tpy) and total HAPs will increase by 0.2119 tpy.

Permit #0590-AOP-R19 was issued on November 8, 2017. This modification was to add fugitive equipment (pumps, valves, flanges, etc.) to facilitate the rail car loading of transmix. The physical change involved additional piping from manifold to the rail spur and adding vapor return lines to the vapor recovery system. This permit modification resulted in an increase of 0.1 tpy of VOC at SN-15. AMID NLR intends to load the transmix using the existing facility wide throughput limit of 795,000,000 gallons of RVP 13.5 gasoline or lower vapor pressure product; there will be no increase in throughput limits.

Permit #0590-AOP-R20 was issued on August 17, 2018. This application was submitted as a renewal. In addition to renewing the current Title V permit, the facility requested the following changes:

- Revised the name of tanks at SN-26, SN-27, and SN-28, from Vertical Fixed Tank 20, 21, and 22 to Vertical Fixed Tank 33, 34, and 35 respectively.
- Updated emission rates based on revised TANKS calculations for the storage tanks. There were some decreases in emissions associated with a change in the gasoline RVP.
- Added Specific Condition #80 and #81 to limit the hours of operation at emergency generators SN-29 and SN-30 to 500 hr/yr each.
- Added HAP emissions to emergency generators SN-29 and SN-30.
- Replaced Benzene, Toluene, Ethylbenzene, Xylene, Hexane, and 2,2,4-Trimethylpentane with Total HAPs to be consistent with ADEQ's current Non-Criteria Pollutant Control Strategy.

Permitted emissions decreased by 1.1 tpy VOC, 0.496 tpy Benzene, 0.292 tpy Toluene, 0.0341 tpy Ethylbenzene, 0.042 tpy Xylene, 1.82 tpy Hexane, 0.272 tpy 2,2,4-Trimethylpentane, and increased by 2.89 tpy Total HAPs.

Permit #0590-AOP-R21 was issued on April 1, 2022. This application was submitted as a minor modification to replace an 80,000-barrel internal floating roof (IFR) tank with a new 50,000-barrel IFR storage tank designated as SN-31. SN-31 was originally permitted in 0590-AOP-R18 as an 80,000-barrel IFR but was never constructed. Permitted emissions decreased by 5.0 tpy VOC and 0.12 tpy Total HAPs.

Permit #0590-AOP-R22 was issued on July 14, 2022. This application was submitted as a minor modification to change Specific Condition #5 (Roof Landing Events) to only apply to gasoline



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service and change the number of the new tank from T-29 to T-12. Additionally, previous Specific Conditions #9 through #13, #39 and #40 were removed to reflect the changes of updated Rule 19, effective May 6, 2022. There were no changes to permitted emissions.

**SECTION IV: SPECIFIC CONDITIONS**

**Controlled Tank Group  
 Tanks #1, #2, #3, #5, #6, #7, #8, #9, #10, #11 and #12  
 (RVP 13.5 Gasoline or Lower Vapor Pressure)**

SN-01 (Tank #1) is a 1,111,911 gallon internal floating roof tank with a liquid-mounted primary seal which was installed in 1980. SN-02 (Tank #2) is a 1,996,056 gallon internal floating roof tank with mechanical shoe seal. SN-02 was installed in 1980 and the seal was replaced in 2005. SN-03 (Tank #3) is a 1,997,053 gallon internal floating roof tank with a mechanical shoe seal which was installed in 1980. SN-05 (Tank #5) is a 3,365,080 gallon internal floating roof tank with a mechanical shoe seal which was installed in 1985. SN-13 (Tank #6) is a 1,799,559 gallon internal floating roof tank with a mechanical shoe seal which was installed in 1994. SN-14 (Tank #7) is a 402,381 gallon internal floating roof tank with a mechanical shoe seal which was installed in 1994. SN-16 (Tank #8) is a 3,360,000 gallon internal floating roof tank with a mechanical shoe which was installed in 2003. SN-17 (Tank #9) is 3,360,000 gallon internal floating roof tank with a mechanical shoe seal which was installed in 2003. SN-23 and SN-31 (Tank #10 and Tank #12) are 2,100,000 gallon internal floating roof tanks with a mechanical shoe seal. SN-25 (Tank #11) is a 3,360,000 gallon internal floating roof tank with a mechanical shoe seal.

Tanks #1, #2, #3, #5, #6, #7, #8, #9, #10, #11, and #12 are subject to NESHAP 40 CFR Part 63 Subpart BBBBBB and NSPS 40 CFR Part 60 Subpart Kb when they store gasoline. Tanks #2, #3, #5, #8, and #11 are already deemed in compliance with NESHAP 40 CFR Part 63 Subpart BBBBBB (§63.11087) because said sources are subject to, and complies with, the control requirements of NSPS 40 CFR Part 60 Subpart Kb.

**Specific Conditions**

1. These sources shall not exceed the emission rates set forth in the following table. Compliance with these emission limits shall be demonstrated by compliance with Specific Conditions #9, #11, and #13. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
01	Tank #1	VOC	53.9	-
02	Tank #2	VOC	97.9	-
03	Tank #3	VOC	97.9	-
05	Tank #5	VOC	163.0	-
13	Tank #6	VOC	91.7	-
14	Tank #7	VOC	26.1	-
16	Tank #8	VOC	163.0	-
17	Tank #9	VOC	163.0	-
23	Tank #10	VOC	113.2	-
25	Tank #11	VOC	163.0	-

SN	Description	Pollutant	lb/hr	tpy
31	Tank #12	VOC	113.2	-
TOTAL		VOC	-	72.4

NOTE: Hourly emissions shown are the maximum at each tank during a filling event (2-hour refill). Annual emissions include rim seal losses, withdrawal losses, deck fitting losses, working losses, and roof landing (standing and filling loss) losses. Annual emissions are bubbled.

- These sources shall not exceed the emission rates set forth in the following table. Hourly emissions shown are the maximum at each tank during a filling event (2-hour refill). Hourly and annual emissions include rim seal losses, withdrawal losses, deck fitting losses, standing losses, filling losses, and working losses emissions. Compliance with these emission limits shall be demonstrated by compliance with Specific Conditions #9, #11, and #13. [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
01	Tank #1	Total HAPs	1.12	-
02	Tank #2	Total HAPs	2.04	-
03	Tank #3	Total HAPs	2.04	-
05	Tank #5	Total HAPs	3.39	-
13	Tank #6	Total HAPs	1.91	-
14	Tank #7	Total HAPs	0.55	-
16	Tank #8	Total HAPs	3.39	-
17	Tank #9	Total HAPs	3.39	-
23	Tank #10	Total HAPs	2.35	-
25	Tank #11	Total HAPs	3.39	-
31	Tank #12	Total HAPs	2.35	-
TOTAL		Total HAPs	-	1.50

NOTE: Hourly emissions shown are the maximum at each tank during a filling event (2-hour refill). Annual emissions include rim seal losses, withdrawal losses, deck fitting losses, working losses, and roof landing (standing and filling loss) losses. Annual emissions are bubbled.

- Tanks #1, #2, #3, #5, #6, #7, #8, #9, #10, #11 and #12 shall only be used for the storage of RVP 13.5 gasoline or lower vapor pressure products. [Rule 19.705, 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]
- The permittee shall maintain monthly records which demonstrate compliance with Specific Condition #3. The permittee shall update the records by the fifteenth day of the month following the month to which the records pertain. Such records shall be maintained on-site and submitted in accordance with General Provision #7. [Rule 19.705 and 40 C.F.R. § 52 Subpart E]
- The permittee shall not exceed the number of roof landings (a.k.a. filling events), while in gasoline service, as specified below per consecutive twelve (12) month period. In addition, the permittee shall not exceed the number of days idle per tank during landing

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events. The maximum days idle limits do not apply if the tank is completely empty. [Rule 19.705, 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]

SN	Tank	Roof Landings	Maximum Days Idle
01	1	10	20
02	2	10	20
03	3	10	20
05	5	10	20
13	6	10	20
14	7	10	20
16	8	10	20
17	9	10	20
23	10	10	20
25	11	10	20
31	12	10	20

6. The permittee shall maintain monthly records which demonstrate compliance with Specific Condition #5. These records shall for each month's data include by source the number of days idle, the number of filling events, and the total for both for the preceding eleven months. The permittee shall update the records by the fifteenth day of the month following the month to which the records pertain. Such records shall be maintained on-site and submitted in accordance with General Provision #7. [Rule 19.705 and 40 C.F.R. § 52 Subpart E]
7. The permittee shall limited no more than two (2) roof landings (a.k.a. filling events) occurring simultaneously at any given time. [Rule 19.705, 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]
8. The permittee shall maintain monthly records which demonstrate compliance with Specific Condition #7. The permittee shall update the records by the fifteenth day of the month following the month to which the records pertain. Such records shall be maintained on-site and submitted in accordance with General Provision #7. [Rule 19.705 and 40 C.F.R. § 52 Subpart E]
9. The total throughput of distillate fuel at the controlled tank group (Tanks #1, #2, #3, #5, #6, #7, #8, #9, #10, #11 and #12) shall be limited to 506,000,000 gallons per consecutive twelve month period. [Rule 19.705, 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]
10. The permittee shall maintain monthly records and a 12 month rolling total to demonstrate compliance with Specific Condition #9. The permittee shall update the records by the fifteenth day of the month following the month to which the records pertain. These

records shall be maintained on-site and submitted to the Department in accordance with General Provision #7. [Rule 19.705 and 40 C.F.R. § 52 Subpart E]

11. The total throughput of RVP 13.5 gasoline or lower vapor pressure products at the controlled tank group (Tanks #1, #2, #3, #5, #6, #7, #8, #9, #10, #11 and #12) shall be limited to 795,000,000 gallons per consecutive 12 month period. [Rule 19.705, 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]
12. Records for the annual throughput of RVP 13.5 gasoline or lower vapor pressure products (excluding diesel and jet fuel) shall be maintained on a twelve month rolling basis to demonstrate compliance with Specific Condition #11. The permittee shall update the records by the fifteenth day of the month following the month to which the records pertain. Such records shall be maintained on-site and submitted in accordance with General Provision #7. [Rule 19.705 and 40 C.F.R. § 52 Subpart E]
13. The total throughput of ethanol at the controlled tank group (Tanks #1, #2, #3, #5, #6, #7, #8, #9, #10, #11 and #12) shall be limited to 212,000,000 gallons per consecutive twelve month period. The permittee is authorized to receive ethanol by both railcar and truck. [Rule 19.705, 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]
14. The permittee shall maintain monthly records and a 12 month rolling total that demonstrates compliance with Specific Conditions #9, #11, and #13. The permittee shall update the records by the fifteenth day of the month following the month to which the records pertain. These records shall be maintained on-site and submitted to the Department in accordance with General Provision #7. [Rule 19.705 and 40 C.F.R. § 52 Subpart E]
15. The permittee may change the service of Tanks #1, #2, #3, #5, #6, #7, #8, #9, #10, #11 and #12 from gasoline to a lower vapor pressure product at the discretion of the facility. Written notification will be provided to the Department a minimum of 7 days in advance of the proposed changes. [Rule 26.802 and 40 C.F.R. § 52 Subpart E]

#### **NESHAP 40 CFR Part 63 Subpart BBBBBB Conditions**

16. Tanks #1, #2, #3, #5, #6, #7, #8, #9, #10, #11 and #12 are subject to NESHAP 40 CFR Part 63 Subpart BBBBBB when storing gasoline. These tanks are located at a bulk gasoline terminal which is an affected existing source under 40 CFR Part 63, Subpart BBBBBB – *National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Bulk Terminals, Bulk Plant, and Pipeline Facilities*. Tanks that comply with NSPS 40 CFR Part 60 Subpart Kb are deemed in compliance with NESHAP 40 CFR Part 63 Subpart BBBBBB. The applicable requirements of the subpart include but are not limited to the following: [Rule 19.304 and 40 C.F.R. § 63.11081]

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- a. Tanks #2, #3, #5, #8, and #11 are deemed in compliance with NESHAP 40 CFR Part 63 Subpart BBBBBB (§63.11087) because said sources are subject to, and complies with, the control requirements of NSPS 40 CFR Part 60 Subpart Kb. [Rule 19.304 and 40 C.F.R. § 63.11087(f)]
- b. The permittee is required to submit the Notification of Compliance Status Report (§63.11093(b)) to the Department prior to Tanks #1, #6, #7, #9, or #10 storing gasoline. [Rule 19.304 and 40 C.F.R. § 63.11087(f)]

### **NSPS 40 CFR Part 60 Subpart Kb Conditions**

17. Tanks #1, #2, #3, #5, #6, #7, #8, #9, #10, #11 and #12 are subject to NSPS 40 CFR Part 60 Subpart Kb when storing gasoline and shall comply with the conditions listed below. [Rule 19.304 and 40 C.F.R. § 60 Subpart Kb]
18. The permittee shall equip each storage vessel with one of the following: [Rule 19.304 and 40 C.F.R. § 60.112b (a)(1)(i-ix)]
  - a. A fixed roof in combination with an internal floating roof meeting the following specifications:
    - i. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
    - ii. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
      - A. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.
      - B. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.
      - C. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

- iii. Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
  - iv. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
  - v. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
  - vi. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
  - vii. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
  - viii. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
  - ix. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
19. After installing the control equipment required to meet § 60.112b(a)(1) (permanently affixed roof and internal floating roof), the permittee shall: [Rule 19.304 and 40 C.F.R. § 60.113b (a)(1-5)]
- a. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.
  - b. For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in § 60.115b(a)(3). Such

- a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
- c. For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):
    - i. Visually inspect the vessel as specified in paragraph (d) of this section at least every 5 years; or
    - ii. Visually inspect the vessel as specified in paragraph (b) of this section.
  - d. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (b) and (c)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.
  - e. Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a) and (d) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (d) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.
20. The permittee of each storage vessel as specified in § 60.112b(a) shall keep records and furnish reports as required by Specific Condition #21 depending upon the control equipment installed to meet the requirements of § 60.112b. The permittee shall keep copies of all reports and records required by this section, 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]
21. After installing control equipment in accordance with § 60.112b(a)(1) (fixed roof and internal floating roof), the permittee shall meet the following requirements. [Rule 19.304 and 40 C.F.R. § 60.115b(a)(1-4)]



- a. Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of § 60.112b(a)(1) and § 60.113b(a)(1). This report shall be an attachment to the notification required by § 60.7(a)(3).
  - b. Keep a record of each inspection performed as required by § 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
  - c. If any of the conditions described in § 60.113b(a)(2) are detected during the annual visual inspection required by § 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
  - d. After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in § 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of § 61.112b(a)(1) or § 60.113b(a)(3) and list each repair made.
22. The permittee shall keep copies of all records required as identified below in Specific Conditions #23 and #24 for at least two years. The records required by §60.116b (b) shall be kept for the life of the tank. [Rule 19.304 and 40 C.F.R. § 60.116b (a)]
  23. The permittee shall keep readily accessible records showing the dimension and an analysis showing the capacity of the tank. [Rule 19.304 and 40 C.F.R. § 60.116b (b)]
  24. The permittee shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. The maximum true vapor pressure is to be determined using one of the options detailed in §60.116b(e). [Rule 19.304 and 40 C.F.R. § 60.116b (c)]

**Vertical Fixed Roof Tank Group  
 Tanks #4, #18, #19, #33, #34, #35**

SN-18 (Tank #18), SN-19 (Tank #19), SN-26 (Tank #33), SN-27 (Tank #34), and SN-28 (Tank #35) are each 20,000 gallon vertical fixed roof tanks. SN-04 (Tank #4) is a 1,899,110 gallon vertical fixed roof tank which was installed in 1980. The total annual throughput of distillate fuel through the controlled tank group is 94,000,000 gallons per year.

**Specific Conditions**

25. The permittee shall not exceed the emission rates set forth in the following table. Compliance with these emission limits shall be demonstrated by compliance with Specific Condition #28. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
04	Tank #4	VOC	0.2	-
18	Tank #18	VOC	0.1	-
19	Tank #19	VOC	0.1	-
26	Tank #33	VOC	0.1	-
27	Tank #34	VOC	0.1	-
28	Tank #35	VOC	0.1	-
TOTAL		VOC	-	1.0

Note: Annual Emissions are bubbled.

26. These sources shall not exceed the emission rates set forth in the following table. Compliance with these emission limits shall be demonstrated by compliance with Specific Condition #28. [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
04	Tank #4	Total HAPs	0.02	-
18	Tank #18	Total HAPs	0.01	-
19	Tank #19	Total HAPs	0.01	-
26	Tank #33	Total HAPs	0.01	-
27	Tank #34	Total HAPs	0.01	-
28	Tank #35	Total HAPs	0.01	-
TOTAL		Total HAPs	-	0.08

Note: Annual Emissions are bubbled.

27. Tanks #4, #18, #19, #33, #34, and #35 shall only be used to store distillate fuel with a RVP of 0.5 PSI or lower. [Rule 19.705, 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]

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28. The total throughput of distillate fuel at the vertical fixed tank group (Tanks #4, #18, #19, #33, #34, #35) shall be limited to 94,000,000 gallons per consecutive twelve month period. [Rule 19.705, 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]
29. The permittee shall maintain monthly records and a 12 month rolling total that demonstrates compliance with Specific Conditions #27 and #28. The permittee shall update the records by the fifteenth day of the month following the month to which the records pertain. These records shall be maintained on-site and submitted to the Department in accordance with General Provision #7. [Rule 19.705 and 40 C.F.R. § 52 Subpart E]

**Loading Rack  
 SN-11**

At the three loading racks, products are transferred from the storage tanks to tank trucks via a total of eight lanes. An ethanol truck loading/unloading station is also included at one of the racks. All three loading racks and eight loading lanes may be used for products with vapor pressures up to RVP 13.5 gasoline. This configuration limits loading to 300,000 gal/hr of gasoline (RVP 13). Vapors from filling are collected through a vapor recovery system. The loading rack is subject to §19.304 of Regulation 19, NSPS 40 CFR 60 Subpart XX, and NESHAP 40 CFR Part 63 Subpart BBBB. Since the loading rack is subject to NESHAP 40 CFR Part 63 Subpart BBBB, CAM doesn't apply.

In 2013, the flare used to control emissions at the loading rack was replaced with a new Vapor Recovery Unit called the John Zink Hydrocarbon Vapor Recovery Unit (Model # S3-AAD-9-110-80-10).

**Specific Conditions**

30. This source shall not exceed the emission rates set forth in the following table. Compliance with these emission limits shall be demonstrated by compliance with Specific Conditions #9, #11, #13, and #28. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
VOC	49.5	55.4

31. This source shall not exceed the emission rates set forth in the following table. Compliance with these emission limits shall be demonstrated by compliance with Specific Conditions #9, #11, #13, and #28. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
Total HAPs	2.57	1.15

32. The vapor control systems at the facility shall be properly maintained and used to prevent gasoline vapors from being emitted into the atmosphere in excess of the rate listed in the table below. Compliance with this emission limit shall be demonstrated by compliance with Specific Condition #35. [Rule 19.705, 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]

Pollutant	mg VOC/liter of gasoline loaded
VOC	10

33. The maximum simultaneous pumping rate resulting in the maximum emission rate at the loading racks is 300,000 gal/hr of RVP 13.5 gasoline. This bottle neck is demonstrated by the turnaround time for loading one truck in each of eight loading lanes. Any increases in the number of fueling lanes used to load RVP 13.5 gasoline or lower vapor pressure products (excluding diesel fuel and lower vapor pressure products) shall require a modification of this permit. [Rule 19.705, 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]
34. The permittee shall conduct an initial compliance test on the John Zink Vapor Recovery Unit in order to demonstrate compliance with Specific Conditions #30 and #31 and Plantwide Condition #3. EPA Method 25A will be used for VOC. An initial compliance test was completed on July 24, 2014.[Rule 19.702, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 60.8]

**NSPS 40 CFR Part 60 Subpart XX Conditions**

35. The loading racks are an affected source of 40 CFR Part 60, Subpart XX. Applicable provisions include, but are not limited to, the following: [Rule 19.304 and 40 C.F.R. § 60 Subpart XX]
36. The emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed the emission rates set forth in the following table. Compliance with this emission limit has been demonstrated by testing submitted on March 23, 2000. [Rule 19.304 and 40 C.F.R. § 60.502(b)]

SN	Pollutant	mg TOC/liter gasoline loaded
11	TOC	35

37. The racks are equipped with a vapor collection system designed to collect the total organic compounds vapors displaced from tank trucks during product loading. [Rule 19.304 and 40 C.F.R. § 60.502(a)]
38. The vapor collection system is designed to prevent total organic compound vapors collected at one loading rack from passing to another loading rack. [Rule 19.304 and 40 C.F.R. § 60.502(d)]
39. The loadings of liquid product into gasoline tank trucks shall be limited to vapor-tight gasoline tank trucks using the following procedures: [Rule 19.304 and 40 C.F.R. § 60.502(e)(1-5)]
- a. The permittee shall obtain the vapor tightness documentation described in §60.505(b) for each gasoline tank truck which is to be loaded at the facility.
  - b. The permittee shall require the tank identification number to be recorded as each gasoline tank truck is loaded at the facility.

- c. The permittee shall cross-check each tank identification number obtained in item 2 with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded.
  - d. The permittee shall notify the owner or operator of each non-vapor tight gasoline tank truck loaded at the facility within 3 weeks after the loading has occurred.
  - e. The permittee shall take steps assuring that the non-vapor tight gasoline tank truck will not be reloaded at the affected facility until vapor tightness documentation for that tank is obtained.
40. The permittee shall act to insure that loadings of gasoline tank trucks at the facility are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system. [Rule 19.304 and 40 C.F.R. § 60.502(f)]
  41. The permittee shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each loading of a gasoline tank truck at the facility (i.e., training drivers in hookup procedures and posting visible reminder signs at the affected loading racks). [Rule 19.304 and 40 C.F.R. § 60.502(g)]
  42. The vapor collection and liquid loading equipment shall be operated to prevent gauge pressure in the delivery tank from exceeding 4,500 Pascals (450 mm of H<sub>2</sub>O) during product loading. This level is not to be exceeded when measured by the procedures specified in §60.503(d). [Rule 19.304 and 40 C.F.R. § 60.502(h)]
  43. No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 Pascals (450 mm of H<sub>2</sub>O). [Rule 19.304 and 40 C.F.R. § 60.502(i)]
  44. Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for total organic compounds liquid or vapor leaks. For this inspection, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected. [Rule 19.304 and 40 C.F.R. § 60.502(j)]
  45. Immediately before the performance test required to determine compliance with §60.502 (b) and (h), the permittee shall use Method 21 to monitor for leakage of vapor all potential sources in the terminal's vapor collection system equipment while a gasoline tank truck is being loaded. The owner shall repair all leaks with readings of 10,000 ppm (as methane) or greater before conducting the performance test. [Rule 19.304 and 40 C.F.R. § 60.503(b)]
  46. The permittee shall determine compliance with the standards of §60.502 (b) as outlined in §60.503(c)(1), (2), (3), (4), (5), (6), and (7). [Rule 19.304 and 40 C.F.R. § 60.503(c)]

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47. The permittee shall determine compliance with the standards of §60.502 (h) as outlined in §60.503 (d)(1) and (2). [Rule 19.304 and 40 C.F.R. § 60.503(d)]
48. The tank truck vapor tightness documentation required under §60.502(e)(1) shall be kept on file at the terminal in a permanent form available for inspection. [Rule 19.304 and 40 C.F.R. § 60.505 (a)]
49. The documentation file for each gasoline tank truck shall be updated at least once per year to reflect current test results as determined by Method 27. This documentation shall include the following information: [Rule 19.304 and 40 C.F.R. § 60.505 (b)]
  - a. Test title: Gasoline Delivery Tank Pressure Test - EPA Reference Method 27,
  - b. Tank owner and address,
  - c. Tank identification number,
  - d. Testing location,
  - e. Date of test,
  - f. Tester name and signature,
  - g. Witnessing inspector, if any: name, signature, and affiliation, and
  - h. Test results: actual pressure change in 5 minutes, mm of H<sub>2</sub>O (average for 2 runs)
50. A record of each monthly leak inspection required under §60.502(j) shall be kept on file at the terminal for at least 2 years. Inspection records shall include the following information: [Rule 19.304 and 40 C.F.R. § 60.505(c)]
  - a. Date of inspection,
  - b. Findings (may indicate no leaks discovered; or location, nature, and severity of each leak),
  - c. Leak determination method, and
  - d. Corrective action (date each leak repaired; reasons for any repair interval in excess of 15 days).
  - e. Inspector name and signature.
51. The permittee shall keep documentation of all notifications required under §60.502(e)(4) on file at the terminal for at least 2 years. [Rule 19.304 and 40 C.F.R. § 60.505(d)]

#### **NESHAP 40 CFR Part 63 Subpart BBBBBB Conditions**

52. The loading racks are subject to NESHAP 40 CFR Part 63 Subpart BBBBBB and shall comply with the conditions listed below. The permittee must be in compliance with all applicable provisions no later than January 10, 2011. The permittee submitted a Notification of Compliance Status report on May 7, 2008. [Rule 19.304 and 40 C.F.R. § 63 Subpart BBBBBB]
53. The permittee must meet each emission limit and management practice in the table below that applies to the facility. Complying with part (a) in the table below is showing

compliance with Specific Condition #37. [Rule 19.304 and 40 C.F.R. § 63.11088(a) & Table 2]

If you own or operate . . .	Then you must . . .
1. A bulk gasoline terminal loading rack(s) with a gasoline throughput (total of all racks) of 250,000 gallons per day, or greater. Gallons per day is calculated by summing the current day's throughput, plus the throughput for the previous 364 days, and then dividing that sum by 365	(a) Equip your loading rack(s) with a vapor collection system designed to collect the TOC vapors displaced from cargo tanks during product loading; and (b) Reduce emissions of TOC to less than or equal to 80 mg/l of gasoline loaded into gasoline cargo tanks at the loading rack; and (c) Design and operate the vapor collection system to prevent any TOC vapors collected at one loading rack or lane from passing through another loading rack or lane to the atmosphere; and (d) Limit the loading of gasoline into gasoline cargo tanks that are vapor tight using the procedures specified in § 60.502(e) through (j) of this chapter. For the purposes of this section, the term “tank truck” as used in § 60.502(e) through (j) of this chapter means “cargo tank” as defined in § 63.11100.

- 54. The permittee shall demonstrate that the vapor recovery system and associated vapor collection system is in compliance with the requirements in §63.11 (b) and §60.503 (a), (b), (c), and (d). [Rule 19.304 and 40 C.F.R. § 63.11092(a)(1-3)]
  
- 55. The permittee shall submit a Notification of Compliance Status, and this notification shall specify which of the compliance options in Table 2 of 40 CFR Part 63, Subpart BBBBBB is used to comply with the subpart. A Notification of Compliance Status was submitted on May 7, 2008, and the permittee elected to comply via Table 2, Option 1. [Rule 19.304 and 40 C.F.R. § 63.11088(e)]
  
- 56. The permittee shall keep records of the test results for each gasoline cargo tank loading at the facility as specified in the following paragraphs: [Rule 19.304 and 40 C.F.R. § 63.11094(b)(1-2)]
  - a. The permittee shall maintain records of the annual certification testing performed under §63.11092(f)(1).
  - b. The documentation file shall be kept up-to-date for each gasoline cargo tank loading at the facility. The documentation for each test shall include, as a minimum, the following information:
    - i. Name of test: Annual Certification Test—Method 27 or Periodic Railcar Bubble Leak Test Procedure.
    - ii. Cargo tank owner's name and address.
    - iii. Cargo tank identification number.
    - iv. Test location and date.
    - v. Tester name and signature.
    - vi. Witnessing inspector, if any: Name, signature, and affiliation.
    - vii. Vapor tightness repair: Nature of repair work and when performed in relation to vapor tightness testing.



- viii. Test results: Test pressure; pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument; and leak definition.
  
- 57. As an alternative to the requirements of Specific Condition #56, the permittee may use a terminal automated system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (*e.g.* via card lock-out system) and make available a copy of the documentation (*e.g.* via facsimile) for inspection by the Administrator's delegated representatives during the course of a site visit or within a mutually agreeable time frame. [Rule 19.304 and 40 C.F.R. § 63.11094(c)(2)(i-ii)]
  - a. The copy of each record is an exact duplicated image of the original paper record with certifying signatures.
  - b. The administrator is notified in writing that each terminal using this alternative is in compliance with Specific Condition #57.
  
- 58. The permittee shall include in the semiannual compliance report, as required by §63.11095, the loading of each gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the permittee. [Rule 19.304 and 40 C.F.R. § 63.11095(a)(2)]
  
- 59. The permittee shall submit an excess emissions report at the time the semiannual compliance report is submitted. Excess emission events and the information specified below shall be included in the report: [Rule 19.304 and 40 C.F.R. § 63.11095(b)(1-2)]
  - a. Each instance of a non-vapor-tight gasoline cargo tank loading at the facility in which the permittee failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained.
  - b. Each reloading of a non-vapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with §63.11094(b).

### Fugitive Emissions SN-15

The following is the summary of the fugitive emission sources including equipment leaks at the facility. Also, the facility added a butane blending process which is used to adjust the Reid Vapor Pressure (RVP) of the gasoline prior to loading. This consists of adding one (1) 60,000 gallon butane storage tank and installing additional piping, valves, pumps, connections, etc., to add the butane blending process to the gasoline piping. They are based on the number of valves, loading arm valves, open-ended lines, flanges, and pump seals at the facility.

### Specific Conditions

60. The fugitive emissions at this facility shall not exceed the emission rates set forth in the following table. Compliance with these emission limits shall be demonstrated by compliance with Specific Conditions #9, #11, #13, and #29. The emission rates are calculated based on the number of components, leak factor, and material liquid speciation data. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Pollutant	lb/hr	tpy
VOC	0.3	1.2

61. This source shall not exceed the emission rates set forth in the following table. Compliance with these emission limits shall be demonstrated by compliance with Specific Conditions #9, #11, #13, and #29. The emission rates are calculated based on the number of components, leak factor, and material liquid speciation data. [Rule 18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
Total HAPs	0.01	0.02

### NESHAP 40 CFR Part 63 Subpart BBBBBB Equipment Leak Conditions

62. The collection of all equipment in vapor or liquid gasoline service is an affected source of NESHAP 40 CFR Part 63 Subpart BBBBBB and shall comply with the conditions listed below. The permittee must be in compliance with all applicable provisions no later than January 10, 2011. The permittee submitted a Notification of Compliance Status report on May 7, 2008. [Rule 19.304 and 40 C.F.R § 63 Subpart BBBBBB]
63. The permittee shall perform a monthly leak inspection of all equipment in gasoline service. The inspections may incorporate sight, sound, and smell. [Rule 19.304 and 40 C.F.R. § 63.11089(a)]

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64. A log book shall be used and shall be signed by permittee at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility. [Rule 19.304 and 40 C.F.R. § 63.11089(b)]
65. Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak, except as provided in paragraph (d) of this section. [Rule 19.304 and 40 C.F.R. § 63.11089(c)]
66. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report specified in §63.11095(b), the reason(s) why the repair was not feasible and the date each repair was completed. [Rule 19.304 and 40 C.F.R. § 63.11089(d)]
67. The permittee shall record in the log book for each leak that is detected the information specified below: [Rule 19.304 and 40 C.F.R. § 63.11094(e)(1-7)]
  - a. The equipment type and identification number.
  - b. The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell).
  - c. The date the leak was detected and the date of each attempt to repair the leak.
  - d. Repair methods applied in each attempt to repair the leak.
  - e. Repair delayed” and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak.
  - f. The expected date of successful repair of the leak if the leak is not repaired within 15 days.
  - g. The date of successful repair of the leak.
68. The permittee shall report the number of equipment leaks not repaired within 15 days after detection in the semiannual compliance report required by §63.11095 (a). [Rule 19.304 and 40 C.F.R. § 63.11095(a)(3)]
69. The permittee shall include in the excess emission report as required by §63.11095 (b) for each occurrence of an equipment leak for which no repair attempt was made within 15 days or for which repair was not completed within 15 days after detection the following: [Rule 19.304 and 40 C.F.R. § 63.11095(b)(5)(i-iv)]
  - a. The date on which the leak was detected;
  - b. The date of each attempt to repair the leak;
  - c. The reasons for the delay of repair; and
  - d. The date of successful repair.

**Emergency Generators  
 SN-29 and SN-30**

SN-29 and SN-30 are emergency generators that are subject to NESHAP 40 CFR Part 63 Subpart ZZZZ.

**Specific Conditions**

70. This source shall not exceed the emission rates set forth in the following table. [Rule 19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
29	(325HP CI) North Emergency Generator Pre-2006	PM <sub>10</sub>	0.3	0.1
		SO <sub>2</sub>	0.1	0.1
		VOC	0.8	0.2
		CO	6.1	1.6
		NO <sub>x</sub>	5.0	1.3
30	(195HP CI) South Emergency Generator Pre-2006	PM <sub>10</sub>	0.2	0.1
		SO <sub>2</sub>	0.1	0.1
		VOC	0.5	0.2
		CO	3.7	1.0
		NO <sub>x</sub>	3.0	0.8

71. This source shall not exceed the emission rates set forth in the following table. [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
29	(325HP CI) North Emergency Generator Pre-2006	PM	0.3	0.1
		Total HAPs	0.01	0.01
30	(195HP CI) South Emergency Generator Pre-2006	PM	0.2	0.1
		Total HAPs	0.01	0.01

72. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Limit	Regulatory Citation
29, 30	20%	Rule 19.503

73. The permittee shall not operate the emergency generators SN-29 and SN-30 in excess of 500 total hours each (emergency and non-emergency) per calendar year in order to demonstrate compliance with the annual emission rate limits. Emergency operation in excess of these hours may be allowable but shall be reported and will be evaluated in

accordance with Reg. 19.602 and other applicable regulations. [Rule 19.705, 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]

74. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #73. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. The calendar year totals and each individual month’s data shall be maintained on-site, made available to Department personnel upon request, and submitted in accordance with General Provision #7. [Rule 19.705 and 40 C.F.R. § 52 Subpart E]

**NESHAP 40 CFR Part 63 Subpart ZZZZ Conditions**

75. SN-29 and SN-30 are subject to NESHAP 40 CFR Part 63 Subpart ZZZZ and shall comply with Specific Condition #76 through #84. [Rule 19.304 and NESHAP 40 CFR Part 63 Subpart ZZZZ]
76. The permittee must comply with the requirements in the table below. [Rule 19.304 and 40 C.F.R. § 63.6603(a) & Table 2d]

Table 2d of NESHAP 40 CFR Part 63 Subpart ZZZZ		
For each...	You must meet the following requirement, except during periods of startup...	During periods of startup you must...
4. Emergency stationary CI RICE and black start stationary CI RICE.	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	

77. The permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions: [Rule 19.304 and 40 C.F.R. § 63.6625(e)(3)]
- a. An existing emergency or black start stationary RICE located at an area source of HAP emissions;
78. The permittee must install a non-resettable hour meter if one is not already installed. [Rule 19.304 and 40 C.F.R. § 63.6625(f)]

79. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply. [Rule 19.304 and 40 C.F.R. § 63.6625(h)]
80. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [Rule 19.304 and 40 C.F.R. § 63.6625(i)]
81. The permittee must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times. [Rule 19.304 and 40 C.F.R. § 63.6605(a)]
82. The permittee must operate the emergency stationary RICE according to the requirements in this section. In order for the engine to be considered an emergency stationary RICE 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 this section, is prohibited. If you do not operate the engine according to the requirements in 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. § 63.6640(f)(1,2(i-iii),4)]
  - a. There is no time limit on the use of emergency stationary RICE in emergency situations.
  - b. The permittee may operate your emergency stationary RICE for any combination of the purposes specified in this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by this section counts as part of the 100 hours per calendar year allowed by this section.
    - i. Emergency stationary RICE 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 RICE beyond 100 hours per calendar year.
- ii. Emergency stationary RICE 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 § 63.14), 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.
  - iii. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- c. Emergency stationary RICE located at area sources of HAP 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 this section. Except as provided in this section, the 50 hours per 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.
83. The permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE; [Rule 19.304 and 40 C.F.R. § 63.6655(e)(2-3)]
- a. An existing stationary emergency RICE.
  - b. An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.
84. The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in § 63.6640(f)(2)(ii) or (iii) or § 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [Rule 19.304 and 40 C.F.R. § 63.6655(f)]

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## **SECTION V: COMPLIANCE PLAN AND SCHEDULE**

Sunoco LLC - Sunoco North Little Rock Terminal 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. No tank bottoms shall be processed on-site except for storage prior to off-site disposal. [Rule 19.705, 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]
9. The facility shall keep records of the dates and amounts of tank bottoms shipped from the facility. [Rule 19.705, 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]
10. Records of the tank bottoms shall be maintained on a twelve month rolling basis, updated monthly. These records shall be maintained on-site and submitted to the Department in accordance with General Provision #7. [Rule 19.705 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.

**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 August 18, 2022. [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
550 gal Red Dye Storage Tank	A-3
550 gal Red Dye Storage Tank	A-3
550 gal Red Dye Storage Tank	A-3
1,000 gal Gasoline/Jet Fuel Additive Storage Tank	A-3
2,000 gal Gasoline/Jet Fuel Additive Storage Tank	A-3
3,000 gal Gasoline/Jet Fuel Additive Storage Tank	A-3
4,000 gal Gasoline/Jet Fuel Additive Storage Tank	A-3
4,000 gal Gasoline/Jet Fuel Additive Storage Tank	A-3
4,000 gal Gasoline/Jet Fuel Additive Storage Tank	A-3
4,000 gal Gasoline/Jet Fuel Additive Storage Tank	A-3
10,000 gal Gasoline/Jet Fuel Additive Storage Tank	A-3
10,000 gal Gasoline/Jet Fuel Additive Storage Tank	A-3
8,000 gal Lubricity Additive Storage Tank	A-3
400 gal Diesel Fuel Storage Tank	A-3
400 gal Diesel Fuel Storage Tank	A-3
2,000 gal Tank Bottoms Pass Through Tank	A-3
150 gpm Oil/Water Separator	A-13
150 gpm Oil/Water Separator	A-13
150 gpm Oil/Water Separator	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.

Sunoco LLC - Sunoco North Little Rock Terminal

Permit #: 0590-AOP-R23

AFIN: 60-00440

[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**

*40 C.F.R. Part 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*



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This content is from the eCFR and is authoritative but unofficial.

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## Title 40 - Protection of Environment

### Chapter I - Environmental Protection Agency

#### Subchapter C - Air Programs

#### Part 60 - Standards of Performance for New Stationary Sources

**Authority:** 42 U.S.C. 7401 *et seq.* 42 U.S.C. 7401-7601.

**Source:** 36 FR 24877, Dec. 23, 1971, unless otherwise noted.

#### 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

§ 60.110b Applicability and designation of affected facility.

§ 60.111b Definitions.

§ 60.112b Standard for volatile organic compounds (VOC).

§ 60.113b Testing and procedures.

§ 60.114b Alternative means of emission limitation.

§ 60.115b Reporting and recordkeeping requirements.

§ 60.116b Monitoring of operations.

§ 60.117b Delegation of authority.

#### 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

**Source:** 52 FR 11429, Apr. 8, 1987, unless otherwise noted.

#### § 60.110b Applicability and designation of affected facility.

- (a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m<sup>3</sup>) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.
- (b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 15.0 kPa.
- (c) [Reserved]
- (d) This subpart does not apply to the following:
  - (1) Vessels at coke oven by-product plants.

- (2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
- (3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.
- (4) Vessels with a design capacity less than or equal to 1,589.874 m<sup>3</sup> used for petroleum or condensate stored, processed, or treated prior to custody transfer.
- (5) Vessels located at bulk gasoline plants.
- (6) Storage vessels located at gasoline service stations.
- (7) Vessels used to store beverage alcohol.
- (8) Vessels subject to subpart GGGG of 40 CFR part 63.

(e) *Alternative means of compliance* -

- (1) **Option to comply with part 65.** Owners or operators may choose to comply with 40 CFR part 65, subpart C, to satisfy the requirements of §§ 60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 CFR part 65, subpart C, the monitoring requirements of § 60.116b(c), (e), (f)(1), and (g) still apply. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.
  - (i) A storage vessel with a design capacity greater than or equal to 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa; or
  - (ii) A storage vessel with a design capacity greater than 75 m<sup>3</sup> but less than 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.
- (2) **Part 60, subpart A.** Owners or operators who choose to comply with 40 CFR part 65, subpart C, must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart C, must comply with 40 CFR part 65, subpart A.
- (3) **Internal floating roof report.** If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.43. This report shall be an attachment to the notification required by 40 CFR 65.5(b).
- (4) **External floating roof report.** If an owner or operator installs an external floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.44. This report shall be an attachment to the notification required by 40 CFR 65.5(b).
- (5) **Option to comply with part 63, subpart WW, of this chapter.** Except as specified in paragraphs (e)(5)(i) through (iv) of this section, owners or operators may choose to comply with 40 CFR part 63, subpart WW, to satisfy the requirements of §§ 60.112b through 60.117b for storage vessels either with a design capacity greater than or equal to 151 m<sup>3</sup> 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 m<sup>3</sup> but less than 151 m<sup>3</sup> 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.

- (i) The general provisions in subpart A of this part apply instead of the general provisions in subpart A of part 63 of this chapter.
- (ii) Where terms are defined in both this subpart and 40 CFR part 63, subpart WW, the definitions in this subpart apply.
  - (iii) Owners or operators who choose to comply with 40 CFR part 63, subpart WW, also must comply with the monitoring requirements of § 60.116b(a), (c), (e), and (f)(1), except as specified in paragraphs (e)(5)(iii)(A) through (C) of this section.
    - (A) The reference to all records applies only to the records required by § 60.116b(c);
    - (B) The reference to § 60.116b(b) does not apply; and
    - (C) The reference to § 60.116b(g) does not apply.
  - (iv) Owners or operators who choose to comply with 40 CFR part 63, subpart WW, must also keep records and furnish reports as specified in paragraphs (e)(5)(iv)(A) through (F) of this section.
    - (A) For each affected facility, the owner or operator must notify the Administrator at least 30 days before the first inspection is conducted under 40 CFR part 63, subpart WW. After this notification is submitted to the Administrator, the owner or operator must continue to comply with the alternative standard described in this paragraph (e)(5) until the owner or operator submits another notification to the Administrator indicating the affected facility is using the requirements of §§ 60.112b through 60.117b instead of the alternative standard described in this paragraph (e)(5). The compliance schedule for events does not reset upon switching between compliance with this subpart and 40 CFR part 63, subpart WW.
    - (B) Keep a record of each affected facility using the alternative standard described in this paragraph (e)(5) when conducting an inspection required by § 63.1063(c)(1) of this chapter.
    - (C) Keep a record of each affected facility using the alternative standard described in this paragraph (e)(5) when conducting an inspection required by § 63.1063(c)(2) of this chapter.
    - (D) Copies of all records and reports kept pursuant to § 60.115b(a) and (b) that have not met the 2-year record retention required by the introductory text of § 60.115b must be kept for an additional 2 years after the date of submittal of the inspection notification specified in paragraph (e)(5)(iv)(A) of this section, indicating the affected facility is using the requirements of 40 CFR part 63, subpart WW.
    - (E) Copies of all records and reports kept pursuant to § 63.1065 of this chapter that have not met the 5-year record retention required by the introductory text of § 63.1065 must be kept for an additional 5 years after the date of submittal of the notification specified in paragraph (e)(5)(iv)(A) of this section, indicating the affected facility is using the requirements of §§ 60.112b through 60.117b.
    - (F) The following exceptions to the reporting requirements of § 63.1066 of this chapter apply:



- (1) The notification of initial startup required under § 63.1066(a)(1) and (2) of this chapter must be submitted as an attachment to the notification required by §§ 60.7(a)(3) and 60.115b(a)(1);
- (2) The reference in § 63.1066(b)(2) of this chapter to periodic reports “when inspection failures occur” means to submit inspections results within 60 days of the initial gap measurements required by § 63.1063(c)(2)(i) of this chapter and within 30 days of all other inspections required by § 63.1063(c)(1) and (2) of this chapter.

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989; 65 FR 78275, Dec. 14, 2000; 68 FR 59332, Oct. 15, 2003; 86 FR 5019, Jan. 19, 2021]

## § 60.111b Definitions.

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this subpart as follows:

**Bulk gasoline plant** means any gasoline distribution facility that has a gasoline throughput less than or equal to 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal requirement or Federal, State or local law, and discoverable by the Administrator and any other person.

**Condensate** means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

**Custody transfer** means the transfer of produced petroleum and/or condensate, after processing and/or treatment in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.

**Fill** means the introduction of VOL into a storage vessel but not necessarily to complete capacity.

**Gasoline service station** means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

**Maximum true vapor pressure** means the equilibrium partial pressure exerted by the volatile organic compounds (as defined in 40 CFR 51.100) in the stored VOL at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOLs stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOLs stored at the ambient temperature, as determined:

- (1) In accordance with methods described in American Petroleum institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks, (incorporated by reference - see § 60.17); or
- (2) As obtained from standard reference texts; or
- (3) As determined by ASTM D2879-83, 96, or 97 (incorporated by reference - see § 60.17); or
- (4) Any other method approved by the Administrator.

**Petroleum** means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

**Petroleum liquids** means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.

**Process tank** means a tank that is used within a process (including a solvent or raw material recovery process) to collect material discharged from a feedstock storage vessel or equipment within the process before the material is transferred to other equipment within the process, to a product or by-product storage vessel, or to a vessel used to store recovered solvent or raw material. In many process tanks, unit operations such as reactions and blending are conducted. Other process tanks, such as surge control vessels and bottoms receivers, however, may not involve unit operations.

**Reid vapor pressure** means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases, as determined by ASTM D323-82 or 94 (incorporated by reference - see § 60.17).

**Storage vessel** means each tank, reservoir, or container used for the storage of volatile organic liquids but does not include:

- (1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors;
- (2) Subsurface caverns or porous rock reservoirs; or
- (3) Process tanks.

**Volatile organic liquid (VOL)** means any organic liquid which can emit volatile organic compounds (as defined in 40 CFR 51.100) into the atmosphere.

**Waste** means any liquid resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989; 65 FR 61756, Oct. 17, 2000; 68 FR 59333, Oct. 15, 2003]

## § 60.112b Standard for volatile organic compounds (VOC).

- (a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> 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 m<sup>3</sup> but less than 151 m<sup>3</sup> 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:
  - (1) A fixed roof in combination with an internal floating roof meeting the following specifications:
    - (i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
    - (ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
      - (A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

- (B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.
  - (C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
- (iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
  - (iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
  - (v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
  - (vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
  - (vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
  - (viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
  - (ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
- (2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:
- (i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.
    - (A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in § 60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.
    - (B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in § 60.113b(b)(4).

- (ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.
- (iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(3) A closed vent system and control device meeting the following specifications:

- (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).
- (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.

(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in § 60.114b of this subpart.

(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m<sup>3</sup> 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:

- (1) A closed vent system and control device as specified in § 60.112b(a)(3).
- (2) A system equivalent to that described in paragraph (b)(1) as provided in § 60.114b of this subpart.

(c) **Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.** This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").

- (1) For any storage vessel that otherwise would be subject to the control technology requirements of paragraphs (a) or (b) of this section, the site shall have the option of either complying directly with the requirements of this subpart, or reducing the site-wide total criteria pollutant emissions cap (total emissions cap) in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the total emissions cap in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this subpart for such storage vessel.
- (2) For any storage vessel at the site not subject to the requirements of 40 CFR 60.112b (a) or (b), the requirements of 40 CFR 60.116b (b) and (c) and the General Provisions (subpart A of this part) shall not apply.

[52 FR 11429, Apr. 8, 1987, as amended at 62 FR 52641, Oct. 8, 1997]

## § 60.113b Testing and procedures.

The owner or operator of each storage vessel as specified in § 60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of § 60.112b.

- (a) After installing the control equipment required to meet § 60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:
  - (1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.
  - (2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
  - (3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):
    - (i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years;  
or
    - (ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.
  - (4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.
  - (5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the

inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

- (b) After installing the control equipment required to meet § 60.112b(a)(2) (external floating roof), the owner or operator shall:
- (1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.
    - (i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.
    - (ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.
    - (iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.
  - (2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:
    - (i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.
    - (ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.
    - (iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
  - (3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.
  - (4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this section:
    - (i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 cm<sup>2</sup> per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.
      - (A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.

- (B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
- (ii) The secondary seal is to meet the following requirements:
  - (A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.
  - (B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm<sup>2</sup> per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.
  - (C) There are to be no holes, tears, or other openings in the seal or seal fabric.
- (iii) If a failure that is detected during inspections required in paragraph (b)(1) of § 60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in § 60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
- (5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.
- (6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.
  - (i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.
  - (ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.
- (c) 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.
  - (1) 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.
    - (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 this subpart, 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.

(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).

(2) 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 this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

(d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in § 60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, § 60.18 (e) and (f).

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989]

### § 60.114b Alternative means of emission limitation.

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in § 60.112b, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative means for purposes of compliance with that requirement.

(b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.

(c) Any person seeking permission under this section shall submit to the Administrator a written application including:

(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.

(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.

(d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in § 60.112b.



## § 60.115b Reporting and recordkeeping requirements.

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 this section 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 this section, 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.

- (a) After installing control equipment in accordance with § 60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.
  - (1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of § 60.112b(a)(1) and § 60.113b(a)(1). This report shall be an attachment to the notification required by § 60.7(a)(3).
  - (2) Keep a record of each inspection performed as required by § 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
  - (3) If any of the conditions described in § 60.113b(a)(2) are detected during the annual visual inspection required by § 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
  - (4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in § 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of § 60.112b(a)(1) or § 60.113b(a)(3) and list each repair made.
- (b) After installing control equipment in accordance with § 60.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.
  - (1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by § 60.7(a)(3).
  - (2) Within 60 days of performing the seal gap measurements required by § 60.113b(b)(1), furnish the Administrator with a report that contains:
    - (i) The date of measurement.
    - (ii) The raw data obtained in the measurement.
    - (iii) The calculations described in § 60.113b (b)(2) and (b)(3).
  - (3) Keep a record of each gap measurement performed as required by § 60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:
    - (i) The date of measurement.
    - (ii) The raw data obtained in the measurement.
    - (iii) The calculations described in § 60.113b (b)(2) and (b)(3).

- (4) After each seal gap measurement that detects gaps exceeding the limitations specified by § 60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair.
- (c) 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.
  - (1) A copy of the operating plan.
  - (2) A record of the measured values of the parameters monitored in accordance with § 60.113b(c)(2).
- (d) After installing a closed vent system and flare to comply with § 60.112b, the owner or operator shall meet the following requirements.
  - (1) A report containing the measurements required by § 60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by § 60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.
  - (2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.
  - (3) Semiannual reports of all periods recorded under § 60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

[52 FR 11429, Apr. 8, 1987, as amended at 86 FR 5019, Jan. 19, 2021]

### § 60.116b Monitoring of operations.

- (a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.
- (b) 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.
- (c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.
- (d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range.
- (e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

- (1) 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.
- (2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:
  - (i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference - see § 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
  - (ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.
- (3) For other liquids, the vapor pressure:
  - (i) May be obtained from standard reference texts, or
  - (ii) Determined by ASTM D2879-83, 96, or 97 (incorporated by reference - see § 60.17); or
  - (iii) Measured by an appropriate method approved by the Administrator; or
  - (iv) Calculated by an appropriate method approved by the Administrator.
- (f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.
  - (1) 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 this section.
  - (2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in § 60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:
    - (i) ASTM D2879-83, 96, or 97 (incorporated by reference - see § 60.17); or
    - (ii) ASTM D323-82 or 94 (incorporated by reference - see § 60.17); or
    - (iii) As measured by an appropriate method as approved by the Administrator.
- (g) 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 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section.

[52 FR 11429, Apr. 8, 1987, as amended at 65 FR 61756, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000; 68 FR 59333, Oct. 15, 2003]

### § 60.117b Delegation of authority.

- (a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.
- (b) Authorities which will not be delegated to States: §§ 60.111b(f)(4), 60.114b, 60.116b(e)(3)(iii), 60.116b(e)(3)(iv), and 60.116b(f)(2)(iii).

[52 FR 11429, Apr. 8, 1987, as amended at 52 FR 22780, June 16, 1987]

## **Appendix B**

40 C.F.R. Part 60, Subpart XX - *Standards of Performance for Bulk Gasoline Terminals*



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This content is from the eCFR and is authoritative but unofficial.

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## Title 40 - Protection of Environment

### Chapter I - Environmental Protection Agency

#### Subchapter C - Air Programs

#### Part 60 - Standards of Performance for New Stationary Sources

**Authority:** 42 U.S.C. 7401 *et seq.* 42 U.S.C. 7401-7601.

**Source:** 36 FR 24877, Dec. 23, 1971, unless otherwise noted.

#### Subpart XX Standards of Performance for Bulk Gasoline Terminals

§ 60.500 Applicability and designation of affected facility.

§ 60.501 Definitions.

§ 60.502 Standard for Volatile Organic Compound (VOC) emissions from bulk gasoline terminals.

§ 60.503 Test methods and procedures.

§ 60.504 [Reserved]

§ 60.505 Reporting and recordkeeping.

§ 60.506 Reconstruction.

#### Subpart XX - Standards of Performance for Bulk Gasoline Terminals

**Source:** 48 FR 37590, Aug. 18, 1983, unless otherwise noted.

#### § 60.500 Applicability and designation of affected facility.

- (a) The affected facility to which the provisions of this subpart apply is the total of all the loading racks at a bulk gasoline terminal which deliver liquid product into gasoline tank trucks.
- (b) Each facility under paragraph (a) of this section, the construction or modification of which is commenced after December 17, 1980, is subject to the provisions of this subpart.
- (c) For purposes of this subpart, any replacement of components of an existing facility, described in paragraph (a) of this section, commenced before August 18, 1983 in order to comply with any emission standard adopted by a State or political subdivision thereof will not be considered a reconstruction under the provisions of 40 CFR 60.15.

Note: The intent of these standards is to minimize the emissions of VOC through the application of best demonstrated technologies (BDT). The numerical emission limits in this standard are expressed in terms of total organic compounds. This emission limit reflects the performance of BDT.

#### § 60.501 Definitions.

The terms used in this subpart are defined in the Clean Air Act, in § 60.2 of this part, or in this section as follows:

**Bulk gasoline terminal** means any gasoline facility which receives gasoline by pipeline, ship or barge, and has a gasoline throughput greater than 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal, State or local law and discoverable by the Administrator and any other person.

**Continuous vapor processing system** means a vapor processing system that treats total organic compounds vapors collected from gasoline tank trucks on a demand basis without intermediate accumulation in a vapor holder.

**Existing vapor processing system** means a vapor processing system [capable of achieving emissions to the atmosphere no greater than 80 milligrams of total organic compounds per liter of gasoline loaded], the construction or refurbishment of which was commenced before December 17, 1980, and which was not constructed or refurbished after that date.

**Flare** means a thermal oxidation system using an open (without enclosure) flame.

**Gasoline** means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater which is used as a fuel for internal combustion engines.

**Gasoline tank truck** means a delivery tank truck used at bulk gasoline terminals which is loading gasoline or which has loaded gasoline on the immediately previous load.

**Intermittent vapor processing system** means a vapor processing system that employs an intermediate vapor holder to accumulate total organic compounds vapors collected from gasoline tank trucks, and treats the accumulated vapors only during automatically controlled cycles.

**Loading rack** means the loading arms, pumps, meters, shutoff valves, relief valves, and other piping and valves necessary to fill delivery tank trucks.

**Refurbishment** means, with reference to a vapor processing system, replacement of components of, or addition of components to, the system within any 2-year period such that the fixed capital cost of the new components required for such component replacement or addition exceeds 50 percent of the cost of a comparable entirely new system.

**Thermal oxidation system** means a combustion device used to mix and ignite fuel, air pollutants, and air to provide a flame to heat and oxidize hazardous air pollutants. Auxiliary fuel may be used to heat air pollutants to combustion temperatures.

**Total organic compounds** means those compounds measured according to the procedures in § 60.503.

**Vapor collection system** means any equipment used for containing total organic compounds vapors displaced during the loading of gasoline tank trucks.

**Vapor processing system** means all equipment used for recovering or oxidizing total organic compounds vapors displaced from the affected facility.

**Vapor-tight gasoline tank truck** means a gasoline tank truck which has demonstrated within the 12 preceding months that its product delivery tank will sustain a pressure change of not more than 750 pascals (75 mm of water) within 5 minutes after it is pressurized to 4,500 pascals (450 mm of water). This capability is to be demonstrated using the pressure test procedure specified in Method 27.

[48 FR 37590, Aug. 18, 1983, as amended at 65 FR 61763, Oct. 17, 2000; 68 FR 70965, Dec. 19, 2003]



## § 60.502 Standard for Volatile Organic Compound (VOC) emissions from bulk gasoline terminals.

On and after the date on which § 60.8(a) requires a performance test to be completed, the owner or operator of each bulk gasoline terminal containing an affected facility shall comply with the requirements of this section.

- (a) Each affected facility shall be equipped with a vapor collection system designed to collect the total organic compounds vapors displaced from tank trucks during product loading.
- (b) The emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 35 milligrams of total organic compounds per liter of gasoline loaded, except as noted in paragraph (c) of this section.
- (c) For each affected facility equipped with an existing vapor processing system, the emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 80 milligrams of total organic compounds per liter of gasoline loaded.
- (d) Each vapor collection system shall be designed to prevent any total organic compounds vapors collected at one loading rack from passing to another loading rack.
- (e) Loadings of liquid product into gasoline tank trucks shall be limited to vapor-tight gasoline tank trucks using the following procedures:
  - (1) The owner or operator shall obtain the vapor tightness documentation described in § 60.505(b) for each gasoline tank truck which is to be loaded at the affected facility.
  - (2) The owner or operator shall require the tank identification number to be recorded as each gasoline tank truck is loaded at the affected facility.
  - (3)
    - (i) The owner or operator shall cross-check each tank identification number obtained in paragraph (e)(2) of this section with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded, unless either of the following conditions is maintained:
      - (A) If less than an average of one gasoline tank truck per month over the last 26 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed each quarter; or
      - (B) If less than an average of one gasoline tank truck per month over the last 52 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed semiannually.
    - (ii) If either the quarterly or semiannual cross-check provided in paragraphs (e)(3)(i) (A) through (B) of this section reveals that these conditions were not maintained, the source must return to biweekly monitoring until such time as these conditions are again met.
  - (4) The terminal owner or operator shall notify the owner or operator of each non-vapor-tight gasoline tank truck loaded at the affected facility within 1 week of the documentation cross-check in paragraph (e)(3) of this section.
  - (5) The terminal owner or operator shall take steps assuring that the nonvapor-tight gasoline tank truck will not be reloaded at the affected facility until vapor tightness documentation for that tank is obtained.

- (6) Alternate procedures to those described in paragraphs (e)(1) through (5) of this section for limiting gasoline tank truck loadings may be used upon application to, and approval by, the Administrator.
- (f) The owner or operator shall act to assure that loadings of gasoline tank trucks at the affected facility are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system.
- (g) The owner or operator shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each loading of a gasoline tank truck at the affected facility. Examples of actions to accomplish this include training drivers in the hookup procedures and posting visible reminder signs at the affected loading racks.
- (h) The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4,500 pascals (450 mm of water) during product loading. This level is not to be exceeded when measured by the procedures specified in § 60.503(d).
- (i) No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 pascals (450 mm of water).
- (j) Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for total organic compounds liquid or vapor leaks. For purposes of this paragraph, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected.

[48 FR 37590, Aug. 18, 1983; 48 FR 56580, Dec. 22, 1983, as amended at 54 FR 6678, Feb. 14, 1989; 64 FR 7466, Feb. 12, 1999]

### § 60.503 Test methods and procedures.

- (a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). The three-run requirement of § 60.8(f) does not apply to this subpart.
- (b) Immediately before the performance test required to determine compliance with § 60.502 (b), (c), and (h), the owner or operator shall use Method 21 to monitor for leakage of vapor all potential sources in the terminal's vapor collection system equipment while a gasoline tank truck is being loaded. The owner or operator shall repair all leaks with readings of 10,000 ppm (as methane) or greater before conducting the performance test.
- (c) The owner or operator shall determine compliance with the standards in § 60.502 (b) and (c) as follows:
  - (1) The performance test shall be 6 hours long during which at least 300,000 liters of gasoline is loaded. If this is not possible, the test may be continued the same day until 300,000 liters of gasoline is loaded or the test may be resumed the next day with another complete 6-hour period. In the latter case, the 300,000-liter criterion need not be met. However, as much as possible, testing should be conducted during the 6-hour period in which the highest throughput normally occurs.
  - (2) If the vapor processing system is intermittent in operation, the performance test shall begin at a reference vapor holder level and shall end at the same reference point. The test shall include at least two startups and shutdowns of the vapor processor. If this does not occur under automatically controlled operations, the system shall be manually controlled.

- (3) The emission rate (E) of total organic compounds shall be computed using the following equation:

$$E = K \sum_{i=1}^n (V_{esi} C_{ei}) / (L 10^6)$$

where:

E = emission rate of total organic compounds, mg/liter of gasoline loaded.

$V_{esi}$  = volume of air-vapor mixture exhausted at each interval "i", scm.

$C_{ei}$  = concentration of total organic compounds at each interval "i", ppm.

L = total volume of gasoline loaded, liters.

n = number of testing intervals.

i = emission testing interval of 5 minutes.

K = density of calibration gas,  $1.83 \times 10^6$  for propane and  $2.41 \times 10^6$  for butane, mg/scm.

- (4) The performance test shall be conducted in intervals of 5 minutes. For each interval "i", readings from each measurement shall be recorded, and the volume exhausted ( $V_{esi}$ ) and the corresponding average total organic compounds concentration ( $C_{ei}$ ) shall be determined. The sampling system response time shall be considered in determining the average total organic compounds concentration corresponding to the volume exhausted.
- (5) The following methods shall be used to determine the volume ( $V_{esi}$ ) air-vapor mixture exhausted at each interval:
- (i) Method 2B shall be used for combustion vapor processing systems.
  - (ii) Method 2A shall be used for all other vapor processing systems.
- (6) Method 25A or 25B shall be used for determining the total organic compounds concentration ( $C_{ei}$ ) at each interval. The calibration gas shall be either propane or butane. The owner or operator may exclude the methane and ethane content in the exhaust vent by any method (e.g., Method 18) approved by the Administrator.
- (7) To determine the volume (L) of gasoline dispensed during the performance test period at all loading racks whose vapor emissions are controlled by the processing system being tested, terminal records or readings from gasoline dispensing meters at each loading rack shall be used.
- (d) The owner or operator shall determine compliance with the standard in § 60.502(h) as follows:
- (1) A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), capable of measuring up to 500 mm of water gauge pressure with  $\pm 2.5$  mm of water precision, shall be calibrated and installed on the terminal's vapor collection system at a pressure tap located as close as possible to the connection with the gasoline tank truck.

- (2) During the performance test, the pressure shall be recorded every 5 minutes while a gasoline truck is being loaded; the highest instantaneous pressure that occurs during each loading shall also be recorded. Every loading position must be tested at least once during the performance test.
- (e) The performance test requirements of paragraph (c) of this section do not apply to flares defined in § 60.501 and meeting the requirements in § 60.18(b) through (f). The owner or operator shall demonstrate that the flare and associated vapor collection system is in compliance with the requirements in §§ 60.18(b) through (f) and 60.503(a), (b), and (d).
- (f) The owner or operator shall use alternative test methods and procedures in accordance with the alternative test method provisions in § 60.8(b) for flares that do not meet the requirements in § 60.18(b).

[54 FR 6678, Feb. 14, 1989; 54 FR 21344, Feb. 14, 1989, as amended at 68 FR 70965, Dec. 19, 2003]

## § 60.504 [Reserved]

## § 60.505 Reporting and recordkeeping.

- (a) The tank truck vapor tightness documentation required under § 60.502(e)(1) shall be kept on file at the terminal in a permanent form available for inspection.
- (b) The documentation file for each gasoline tank truck shall be updated at least once per year to reflect current test results as determined by Method 27. This documentation shall include, as a minimum, the following information:
  - (1) Test title: Gasoline Delivery Tank Pressure Test - EPA Reference Method 27.
  - (2) Tank owner and address.
  - (3) Tank identification number.
  - (4) Testing location.
  - (5) Date of test.
  - (6) Tester name and signature.
  - (7) Witnessing inspector, if any: Name, signature, and affiliation.
  - (8) Test results: Actual pressure change in 5 minutes, mm of water (average for 2 runs).
- (c) A record of each monthly leak inspection required under § 60.502(j) shall be kept on file at the terminal for at least 2 years. Inspection records shall include, as a minimum, the following information:
  - (1) Date of inspection.
  - (2) Findings (may indicate no leaks discovered; or location, nature, and severity of each leak).
  - (3) Leak determination method.
  - (4) Corrective action (date each leak repaired; reasons for any repair interval in excess of 15 days).
  - (5) Inspector name and signature.
- (d) The terminal owner or operator shall keep documentation of all notifications required under § 60.502(e)(4) on file at the terminal for at least 2 years.

- (e) As an alternative to keeping records at the terminal of each gasoline cargo tank test result as required in paragraphs (a), (c), and (d) of this section, an owner or operator may comply with the requirements in either paragraph (e)(1) or (2) of this section.
  - (1) An electronic copy of each record is instantly available at the terminal.
    - (i) The copy of each record in paragraph (e)(1) of this section is an exact duplicate image of the original paper record with certifying signatures.
    - (ii) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (e)(1) of this section.
  - (2) For facilities that utilize a terminal automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (e.g., via a card lock-out system), a copy of the documentation is made available (e.g., via facsimile) for inspection by permitting authority representatives during the course of a site visit, or within a mutually agreeable time frame.
    - (i) The copy of each record in paragraph (e)(2) of this section is an exact duplicate image of the original paper record with certifying signatures.
    - (ii) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (e)(2) of this section.
- (f) The owner or operator of an affected facility shall keep records of all replacements or additions of components performed on an existing vapor processing system for at least 3 years.

[48 FR 37590, Aug. 18, 1983; 48 FR 56580, Dec. 22, 1983, as amended at 68 FR 70965, Dec. 19, 2003]

## § 60.506 Reconstruction.

For purposes of this subpart:

- (a) The cost of the following frequently replaced components of the affected facility shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital costs that would be required to construct a comparable entirely new facility” under § 60.15: pump seals, loading arm gaskets and swivels, coupler gaskets, overfill sensor couplers and cables, flexible vapor hoses, and grounding cables and connectors.
- (b) Under § 60.15, the “fixed capital cost of the new components” includes the fixed capital cost of all depreciable components (except components specified in § 60.506(a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following December 17, 1980. For purposes of this paragraph, “commenced” means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

## **Appendix C**

40 C.F.R. Part 63, Subpart BBBBBB - *National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities*



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This content is from the eCFR and is authoritative but unofficial.

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## Title 40 - Protection of Environment

### Chapter I - Environmental Protection Agency

#### Subchapter C - Air Programs

#### Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories

Authority: 42 U.S.C. 7401 *et seq.*

Source: 57 FR 61992, Dec. 29, 1992, unless otherwise noted.

#### Subpart BBBBBB National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities

##### What This Subpart Covers

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##### Testing and Monitoring Requirements

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#### Table 1 to Subpart BBBBBB of Part 63



Applicability Criteria, Emission Limits, and Management  
Practices for Storage Tanks

**Table 2 to Subpart BBBBBB of Part 63**

Applicability Criteria, Emission Limits, and Management  
Practices for Loading Racks

**Table 3 to Subpart BBBBBB of Part 63**

Applicability of General Provisions

**Subpart BBBBBB - National Emission Standards for Hazardous Air Pollutants for Source  
Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities**

**Source:** 73 FR 1933, Jan. 10, 2008, unless otherwise noted.

WHAT THIS SUBPART COVERS

**§ 63.11080 What is the purpose of this subpart?**

This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from area source gasoline distribution bulk terminals, bulk plants, and pipeline facilities. This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.

**§ 63.11081 Am I subject to the requirements in this subpart?**

(a) The affected source to which this subpart applies is each area source bulk gasoline terminal, pipeline breakout station, pipeline pumping station, and bulk gasoline plant identified in paragraphs (a)(1) through (4) of this section. You are subject to the requirements in this subpart if you own or operate one or more of the affected area sources identified in paragraphs (a)(1) through (4) of this section.

(1) A bulk gasoline terminal that is not subject to the control requirements of 40 CFR part 63, subpart R (§§ 63.422, 63.423, and 63.424) or 40 CFR part 63, subpart CC (§§ 63.646, 63.648, 63.649, and 63.650).

(2) A pipeline breakout station that is not subject to the control requirements of 40 CFR part 63, subpart R (§§ 63.423 and 63.424).

(3) A pipeline pumping station.

(4) A bulk gasoline plant.

(b) If you are an owner or operator of affected sources, as defined in (a)(1) through (4) of this section, you are not required to meet the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71 as a result of being subject to this subpart. However, you are still subject to the requirement to apply for and obtain a permit under 40 CFR part 70 or 40 CFR part 71 if you meet one or more of the applicability criteria found in 40 CFR 70.3(a) and (b) or 40 CFR part 71.3(a) and (b).

- (c) Gasoline storage tanks that are located at affected sources identified in paragraphs (a)(1) through (a)(4) of this section, and that are used only for dispensing gasoline in a manner consistent with tanks located at a gasoline dispensing facility as defined in § 63.11132, are not subject to any of the requirements in this subpart. These tanks must comply with subpart CCCCCC of this part.
- (d) The loading of aviation gasoline into storage tanks at airports, and the subsequent transfer of aviation gasoline within the airport, is not subject to this subpart.
- (e) The loading of gasoline into marine tank vessels at bulk facilities is not subject to this subpart.
- (f) If your affected source's throughput ever exceeds an applicable throughput threshold in the definition of "bulk gasoline terminal" or in item 1 in Table 2 to this subpart, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold.
- (g) For the purpose of determining gasoline throughput, as used in the definition of bulk gasoline plant and bulk gasoline terminal, the 20,000 gallons per day threshold throughput is the maximum calculated design throughput for any day, and is not an average. An enforceable State, local, or Tribal permit limitation on throughput, established prior to the applicable compliance date, may be used in lieu of the 20,000 gallons per day design capacity throughput threshold to determine whether the facility is a bulk gasoline plant or a bulk gasoline terminal.
- (h) Storage tanks that are used to load gasoline into a cargo tank for the on-site redistribution of gasoline to another storage tank are subject to this subpart.
- (i) For any affected source subject to the provisions of this subpart and another Federal rule, you may elect to comply only with the more stringent provisions of the applicable subparts. You must consider all provisions of the rules, including monitoring, recordkeeping, and reporting. You must identify the affected source and provisions with which you will comply in your Notification of Compliance Status required under § 63.11093. You also must demonstrate in your Notification of Compliance Status that each provision with which you will comply is at least as stringent as the otherwise applicable requirements in this subpart. You are responsible for making accurate determinations concerning the more stringent provisions; noncompliance with this rule is not excused if it is later determined that your determination was in error, and, as a result, you are violating this subpart. Compliance with this rule is your responsibility, and the Notification of Compliance Status does not alter or affect that responsibility.
- (j) For new or reconstructed affected sources, as specified in § 63.11082(b) and (c), recordkeeping to document applicable throughput must begin upon startup of the affected source. For existing sources, as specified in § 63.11082(d), recordkeeping to document applicable throughput must begin on January 10, 2008. Records required under this paragraph shall be kept for a period of 5 years.

[73 FR 1933, Jan. 10, 2008, as amended at 76 FR 4176, Jan. 24, 2011]

### § 63.11082 What parts of my affected source does this subpart cover?

- (a) The emission sources to which this subpart applies are gasoline storage tanks, gasoline loading racks, vapor collection-equipped gasoline cargo tanks, and equipment components in vapor or liquid gasoline service that meet the criteria specified in Tables 1 through 3 to this subpart.
- (b) An affected source is a new affected source if you commenced construction on the affected source after November 9, 2006, and you meet the applicability criteria in § 63.11081 at the time you commenced operation.

- (c) An affected source is reconstructed if you meet the criteria for reconstruction as defined in § 63.2.
- (d) An affected source is an existing affected source if it is not new or reconstructed.

### § 63.11083 When do I have to comply with this subpart?

- (a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section.
  - (1) If you start up your affected source before January 10, 2008, you must comply with the standards in this subpart no later than January 10, 2008.
  - (2) If you start up your affected source after January 10, 2008, you must comply with the standards in this subpart upon startup of your affected source.
- (b) If you have an existing affected source, you must comply with the standards in this subpart no later than January 10, 2011.
- (c) If you have an existing affected source that becomes subject to the control requirements in this subpart because of an increase in the daily throughput, as specified in option 1 of Table 2 to this subpart, you must comply with the standards in this subpart no later than 3 years after the affected source becomes subject to the control requirements in this subpart.

[73 FR 1933, Jan. 10, 2008, as amended at 76 FR 4177, Jan. 24, 2011]

## EMISSION LIMITATIONS AND MANAGEMENT PRACTICES

### § 63.11085 What are my general duties to minimize emissions?

Each owner or operator of an affected source under this subpart must comply with the requirements of paragraphs (a) and (b) of this section.

- (a) You must, at all times, 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.
- (b) You must keep applicable records and submit reports as specified in § 63.11094(g) and § 63.11095(d).

[76 FR 4177, Jan. 24, 2011]

### § 63.11086 What requirements must I meet if my facility is a bulk gasoline plant?

Each owner or operator of an affected bulk gasoline plant, as defined in § 63.11100, must comply with the requirements of paragraphs (a) through (i) of this section.

- (a) Except as specified in paragraph (b) of this section, you must only load gasoline into storage tanks and cargo tanks at your facility by utilizing submerged filling, as defined in § 63.11100, and as specified in paragraphs (a)(1), (a)(2), or (a)(3) of this section. The applicable distances in paragraphs (a)(1) and (2) of this section shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.
  - (1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.
  - (2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.
  - (3) Submerged fill pipes not meeting the specifications of paragraphs (a)(1) or (a)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the gasoline storage tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.
- (b) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the control requirements in paragraph (a) of this section, but must comply only with the requirements in paragraph (d) of this section.
- (c) You must perform a monthly leak inspection of all equipment in gasoline service according to the requirements specified in § 63.11089(a) through (d).
- (d) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
  - (1) Minimize gasoline spills;
  - (2) Clean up spills as expeditiously as practicable;
  - (3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
  - (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
- (e) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or no later than 120 days after the source becomes subject to this subpart, whichever is later unless you meet the requirements in paragraph (g) of this section. The Initial Notification must contain the information specified in paragraphs (e)(1) through (4) of this section. The notification must be submitted to the applicable EPA Regional Office and the delegated state authority, as specified in § 63.13.
  - (1) The name and address of the owner and the operator.
  - (2) The address (i.e., physical location) of the bulk plant.
  - (3) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a), (b), (c), and (d) of this section that apply to you.
  - (4) A brief description of the bulk plant, including the number of storage tanks in gasoline service, the capacity of each storage tank in gasoline service, and the average monthly gasoline throughput at the affected source.

- (f) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in § 63.13, by the compliance date specified in § 63.11083 unless you meet the requirements in paragraph (g) of this section. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy and must indicate whether the source has complied with the requirements of this subpart. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (e) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (e) of this section.
- (g) If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in § 63.11086(a), you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (e) or paragraph (f) of this section.
- (h) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11083.
- (i) You must keep applicable records and submit reports as specified in § 63.11094(d) and (e) and § 63.11095(c).

[73 FR 1933, Jan. 10, 2008, as amended at 76 FR 4177, Jan. 24, 2011; 85 FR 73919, Nov. 19, 2020]

### **§ 63.11087 What requirements must I meet for gasoline storage tanks if my facility is a bulk gasoline terminal, pipeline breakout station, or pipeline pumping station?**

- (a) You must meet each emission limit and management practice in Table 1 to this subpart that applies to your gasoline storage tank.
- (b) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11083, except that storage vessels equipped with floating roofs and not meeting the requirements of paragraph (a) of this section must be in compliance at the first degassing and cleaning activity after January 10, 2011 or by January 10, 2018, whichever is first.
- (c) You must comply with the applicable testing and monitoring requirements specified in § 63.11092(e).
- (d) You must submit the applicable notifications as required under § 63.11093.
- (e) You must keep records and submit reports as specified in §§ 63.11094 and 63.11095.
- (f) If your gasoline storage tank is subject to, and complies with, the control requirements of 40 CFR part 60, subpart Kb of this chapter, your storage tank will be deemed in compliance with this section. You must report this determination in the Notification of Compliance Status report under § 63.11093(b).

### **§ 63.11088 What requirements must I meet for gasoline loading racks if my facility is a bulk gasoline terminal, pipeline breakout station, or pipeline pumping station?**

- (a) You must meet each emission limit and management practice in Table 2 to this subpart that applies to you.
- (b) As an alternative for railcar cargo tanks to the requirements specified in Table 2 to this subpart, you may comply with the requirements specified in § 63.422(e).
- (c) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11083.
- (d) You must comply with the applicable testing and monitoring requirements specified in § 63.11092.

- (e) You must submit the applicable notifications as required under § 63.11093.
- (f) You must keep records and submit reports as specified in §§ 63.11094 and 63.11095.

### **§ 63.11089 What requirements must I meet for equipment leak inspections if my facility is a bulk gasoline terminal, bulk plant, pipeline breakout station, or pipeline pumping station?**

- (a) Each owner or operator of a bulk gasoline terminal, bulk plant, pipeline breakout station, or pipeline pumping station subject to the provisions of this subpart shall perform a monthly leak inspection of all equipment in gasoline service, as defined in § 63.11100. For this inspection, detection methods incorporating sight, sound, and smell are acceptable.
- (b) A log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility.
- (c) Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak, except as provided in paragraph (d) of this section.
- (d) Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report specified in § 63.11095(b), the reason(s) why the repair was not feasible and the date each repair was completed.
- (e) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11083.
- (f) You must submit the applicable notifications as required under § 63.11093.
- (g) You must keep records and submit reports as specified in §§ 63.11094 and 63.11095.

## TESTING AND MONITORING REQUIREMENTS

### **§ 63.11092 What testing and monitoring requirements must I meet?**

- (a) Each owner or operator of a bulk gasoline terminal subject to the emission standard in item 1(b) of Table 2 to this subpart must comply with the requirements in paragraphs (a) through (d) of this section.
  - (1) Conduct a performance test on the vapor processing and collection systems according to either paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.
    - (i) Use the test methods and procedures in § 60.503 of this chapter, except a reading of 500 parts per million shall be used to determine the level of leaks to be repaired under § 60.503(b) of this chapter.
    - (ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).
  - (2) If you are operating your gasoline loading rack in compliance with an enforceable State, local, or tribal rule or permit that requires your loading rack to meet an emission limit of 80 milligrams (mg), or less, per liter of gasoline loaded (mg/l), you may submit a statement by a responsible official of your facility certifying the compliance status of your loading rack in lieu of the test required under paragraph (a)(1) of this section.

- (3) If you have conducted performance testing on the vapor processing and collection systems within 5 years prior to January 10, 2008, and the test is for the affected facility and is representative of current or anticipated operating processes and conditions, you may submit the results of such testing in lieu of the test required under paragraph (a)(1) of this section, provided the testing was conducted using the test methods and procedures in § 60.503 of this chapter. Should the Administrator deem the prior test data unacceptable, the facility is still required to meet the requirement to conduct an initial performance test within 180 days of the compliance date specified in § 63.11083; thus, previous test reports should be submitted as soon as possible after January 10, 2008.
- (4) The performance test requirements of § 63.11092(a) do not apply to flares defined in § 63.11100 and meeting the flare requirements in § 63.11(b). The owner or operator shall demonstrate that the flare and associated vapor collection system is in compliance with the requirements in § 63.11(b) and 40 CFR 60.503(a), (b), and (d).
- (b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) while gasoline vapors are displaced to the vapor processor systems, as specified in paragraphs (b)(1) through (5) of this section. For each facility conducting a performance test under paragraph (a)(1) of this section, and for each facility utilizing the provisions of paragraphs (a)(2) or (a)(3) of this section, the CMS must be installed by January 10, 2011.
  - (1) For each performance test conducted under paragraph (a)(1) of this section, the owner or operator shall determine a monitored operating parameter value for the vapor processing system using the procedures specified in paragraphs (b)(1)(i) through (iv) of this section. During the performance test, continuously record the operating parameter as specified under paragraphs (b)(1)(i) through (iv) of this section.
    - (i) Where a carbon adsorption system is used, the owner or operator shall monitor the operation of the system as specified in paragraphs (b)(1)(i)(A) or (B) of this section.
      - (A) A continuous emissions monitoring system (CEMS) capable of measuring organic compound concentration shall be installed in the exhaust air stream.
      - (B) As an alternative to paragraph (b)(1)(i)(A) of this section, you may choose to meet the requirements listed in paragraph (b)(1)(i)(B)(1) and (2) of this section.
        - (1) Carbon adsorption devices shall be monitored as specified in paragraphs (b)(1)(i)(B)(1)(i), (ii), and (iii) of this section.
          - (i) Vacuum level shall be monitored using a pressure transmitter installed in the vacuum pump suction line, with the measurements displayed on a gauge that can be visually observed. Each carbon bed shall be observed during one complete regeneration cycle on each day of operation of the loading rack to determine the maximum vacuum level achieved.
          - (ii) Conduct annual testing of the carbon activity for the carbon in each carbon bed. Carbon activity shall be tested in accordance with the butane working capacity test of the American Society for Testing and Materials (ASTM) Method D 5228-92 (incorporated by reference, see § 63.14), or by another suitable procedure as recommended by the manufacturer.





- (iii) Where a thermal oxidation system other than a flare is used, the owner or operator shall monitor the operation of the system as specified in paragraphs (b)(1)(iii)(A) or (B) of this section.
  - (A) A CPMS capable of measuring temperature shall be installed in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs.
  - (B) As an alternative to paragraph (b)(1)(iii)(A) of this section, you may choose to meet the requirements listed in paragraphs (b)(1)(iii)(B)(1) and (2) of this section.
    - (1) The presence of a thermal oxidation system pilot flame shall be monitored using a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, installed in proximity of the pilot light, to indicate the presence of a flame. The heat-sensing device shall send a positive parameter value to indicate that the pilot flame is on, or a negative parameter value to indicate that the pilot flame is off.
    - (2) Develop and submit to the Administrator a monitoring and inspection plan that describes the owner or operator's approach for meeting the requirements in paragraphs (b)(1)(iii)(B)(2)(i) through (v) of this section.
      - (i) The thermal oxidation system shall be equipped to automatically prevent gasoline loading operations from beginning at any time that the pilot flame is absent.
      - (ii) The owner or operator shall verify, during each day of operation of the loading rack, the proper operation of the assist-air blower and the vapor line valve. Verification shall be through visual observation, or through an automated alarm or shutdown system that monitors system operation. A manual or electronic record of the start and end of a shutdown event may be used.
      - (iii) The owner or operator shall perform semi-annual preventive maintenance inspections of the thermal oxidation system, including the automated alarm or shutdown system for those units so equipped, according to the recommendations of the manufacturer of the system.
      - (iv) The monitoring plan developed under paragraph (2) of this section shall specify conditions that would be considered malfunctions of the thermal oxidation system during the inspections or automated monitoring performed under paragraphs (b)(1)(iii)(B)(2)(ii) and (iii) of this section, describe specific corrective actions that will be taken to correct any malfunction, and define what the owner or operator would consider to be a timely repair for each potential malfunction.
      - (v) The owner or operator shall document any system malfunction, as defined in the monitoring and inspection plan, and any activation of the automated alarm or shutdown system with a written entry into a log book or other permanent form of record. Such record shall also include a description of the corrective action taken and whether such corrective actions were taken in a timely manner, as defined in the monitoring and inspection plan, as well as an estimate of the amount of gasoline loaded during the period of the malfunction.

- (iv) Monitoring an alternative operating parameter or a parameter of a vapor processing system other than those listed in paragraphs (b)(1)(i) through (iii) of this section will be allowed upon demonstrating to the Administrator's satisfaction that the alternative parameter demonstrates continuous compliance with the emission standard in § 63.11088(a).
- (2) Where a flare meeting the requirements in § 63.11(b) is used, a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, must be installed in proximity to the pilot light to indicate the presence of a flame.
- (3) Determine an operating parameter value based on the parameter data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations.
- (4) Provide for the Administrator's approval the rationale for the selected operating parameter value, monitoring frequency, and averaging time, including data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the emission standard in § 63.11088(a).
- (5) If you have chosen to comply with the performance testing alternatives provided under paragraph (a)(2) or paragraph (a)(3) of this section, the monitored operating parameter value may be determined according to the provisions in paragraph (b)(5)(i) or paragraph (b)(5)(ii) of this section.
  - (i) Monitor an operating parameter that has been approved by the Administrator and is specified in your facility's current enforceable operating permit. At the time that the Administrator requires a new performance test, you must determine the monitored operating parameter value according to the requirements specified in paragraph (b) of this section.
  - (ii) Determine an operating parameter value based on engineering assessment and the manufacturer's recommendation and submit the information specified in paragraph (b)(4) of this section for approval by the Administrator. At the time that the Administrator requires a new performance test, you must determine the monitored operating parameter value according to the requirements specified in paragraph (b) of this section.
- (c) For performance tests performed after the initial test required under paragraph (a) of this section, the owner or operator shall document the reasons for any change in the operating parameter value since the previous performance test.
- (d) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall comply with the requirements in paragraphs (d)(1) through (4) of this section.
  - (1) Operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the operating parameter value for the parameters described in paragraph (b)(1) of this section.
  - (2) In cases where an alternative parameter pursuant to paragraph (b)(1)(iv) or paragraph (b)(5)(i) of this section is approved, each owner or operator shall operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the alternative operating parameter value.
  - (3) Operation of the vapor processing system in a manner exceeding or going below the operating parameter value, as appropriate, shall constitute a violation of the emission standard in § 63.11088(a), except as specified in paragraph (d)(4) of this section.

- (4) For the monitoring and inspection, as required under paragraphs (b)(1)(i)(B)(2) and (b)(1)(iii)(B)(2) of this section, malfunctions that are discovered shall not constitute a violation of the emission standard in § 63.11088(a) if corrective actions as described in the monitoring and inspection plan are followed. The owner or operator must:
- (i) Initiate corrective action to determine the cause of the problem within 1 hour;
  - (ii) Initiate corrective action to fix the problem within 24 hours;
  - (iii) Complete all corrective actions needed to fix the problem as soon as practicable consistent with good air pollution control practices for minimizing emissions;
  - (iv) Minimize periods of start-up, shutdown, or malfunction; and
  - (v) Take any necessary corrective actions to restore normal operation and prevent the recurrence of the cause of the problem.
- (e) Each owner or operator subject to the emission standard in § 63.11087 for gasoline storage tanks shall comply with the requirements in paragraphs (e)(1) through (3) of this section.
- (1) If your gasoline storage tank is equipped with an internal floating roof, you must perform inspections of the floating roof system according to the requirements of § 60.113b(a) if you are complying with option 2(b) in Table 1 to this subpart, or according to the requirements of § 63.1063(c)(1) if you are complying with option 2(d) in Table 1 to this subpart.
  - (2) If your gasoline storage tank is equipped with an external floating roof, you must perform inspections of the floating roof system according to the requirements of § 60.113b(b) if you are complying with option 2(c) in Table 1 to this subpart, or according to the requirements of § 63.1063(c)(2) if you are complying with option 2(d) in Table 1 to this subpart.
  - (3) If your gasoline storage tank is equipped with a closed vent system and control device, you must conduct a performance test and determine a monitored operating parameter value in accordance with the requirements in paragraphs (a) through (d) of this section, except that the applicable level of control specified in paragraph (a)(2) of this section shall be a 95-percent reduction in inlet total organic compounds (TOC) levels rather than 80 mg/l of gasoline loaded.
- (f) The annual certification test for gasoline cargo tanks shall consist of the test methods specified in paragraphs (f)(1) or (f)(2) of this section. Affected facilities that are subject to subpart XX of 40 CFR part 60 may elect, after notification to the subpart XX delegated authority, to comply with paragraphs (f)(1) and (2) of this section.
- (1) **EPA Method 27, Appendix A-8, 40 CFR part 60.** Conduct the test using a time period (t) for the pressure and vacuum tests of 5 minutes. The initial pressure ( $P_i$ ) for the pressure test shall be 460 millimeters (mm) of water (18 inches of water), gauge. The initial vacuum ( $V_i$ ) for the vacuum test shall be 150 mm of water (6 inches of water), gauge. The maximum allowable pressure and vacuum changes ( $\Delta p$ ,  $\Delta v$ ) for all affected gasoline cargo tanks is 3 inches of water, or less, in 5 minutes.
  - (2) **Railcar bubble leak test procedures.** As an alternative to the annual certification test required under paragraph (1) of this section for certification leakage testing of gasoline cargo tanks, the owner or operator may comply with paragraphs (f)(2)(i) and (ii) of this section for railcar cargo tanks, provided the railcar cargo tank meets the requirement in paragraph (f)(2)(iii) of this section.
    - (i) Comply with the requirements of 49 CFR 173.31(d), 49 CFR 179.7, 49 CFR 180.509, and 49 CFR 180.511 for the periodic testing of railcar cargo tanks.

(ii) The leakage pressure test procedure required under 49 CFR 180.509(j) and used to show no indication of leakage under 49 CFR 180.511(f) shall be ASTM E 515-95, BS EN 1593:1999, or another bubble leak test procedure meeting the requirements in 49 CFR 179.7, 49 CFR 180.505, and 49 CFR 180.509.

(iii) The alternative requirements in this paragraph (f)(2) may not be used for any railcar cargo tank that collects gasoline vapors from a vapor balance system and the system complies with a Federal, State, local, or tribal rule or permit. A vapor balance system is a piping and collection system designed to collect gasoline vapors displaced from a storage vessel, barge, or other container being loaded, and routes the displaced gasoline vapors into the railcar cargo tank from which liquid gasoline is being unloaded.

(g) **Conduct of performance tests.** Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator, based on representative performance (*i.e.*, performance based on normal operating conditions) of the affected source. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

[73 FR 1933, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4177, Jan. 24, 2011]

## NOTIFICATIONS, RECORDS, AND REPORTS

### § 63.11093 What notifications must I submit and when?

- (a) Each owner or operator of an affected source under this subpart must submit an Initial Notification as specified in § 63.9(b). If your facility is in compliance with the requirements of this subpart at the time the Initial Notification is due, the Notification of Compliance Status required under paragraph (b) of this section may be submitted in lieu of the Initial Notification.
- (b) Each owner or operator of an affected source under this subpart must submit a Notification of Compliance Status as specified in § 63.9(h). The Notification of Compliance Status must specify which of the compliance options included in Table 1 to this subpart is used to comply with this subpart.
- (c) Each owner or operator of an affected bulk gasoline terminal under this subpart must submit a Notification of Performance Test, as specified in § 63.9(e), prior to initiating testing required by § 63.11092(a) or § 63.11092(b).
- (d) Each owner or operator of any affected source under this subpart must submit additional notifications specified in § 63.9, as applicable.

### § 63.11094 What are my recordkeeping requirements?

- (a) Each owner or operator of a bulk gasoline terminal or pipeline breakout station whose storage vessels are subject to the provisions of this subpart shall keep records as specified in § 60.115b of this chapter if you are complying with options 2(a), 2(b), or 2(c) in Table 1 to this subpart, except records shall be kept for at least 5 years. If you are complying with the requirements of option 2(d) in Table 1 to this subpart, you shall keep records as specified in § 63.1065.
- (b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall keep records of the test results for each gasoline cargo tank loading at the facility as specified in paragraphs (b)(1) through (3) of this section.

- (1) Annual certification testing performed under § 63.11092(f)(1) and periodic railcar bubble leak testing performed under § 63.11092(f)(2).
  - (2) The documentation file shall be kept up-to-date for each gasoline cargo tank loading at the facility. The documentation for each test shall include, as a minimum, the following information:
    - (i) **Name of test:** Annual Certification Test - Method 27 or Periodic Railcar Bubble Leak Test Procedure.
    - (ii) Cargo tank owner's name and address.
    - (iii) Cargo tank identification number.
    - (iv) Test location and date.
    - (v) Tester name and signature.
    - (vi) **Witnessing inspector, if any:** Name, signature, and affiliation.
    - (vii) **Vapor tightness repair:** Nature of repair work and when performed in relation to vapor tightness testing.
    - (viii) **Test results:** Test pressure; pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument; and leak definition.
  - (3) If you are complying with the alternative requirements in § 63.11088(b), you must keep records documenting that you have verified the vapor tightness testing according to the requirements of the Administrator.
- (c) As an alternative to keeping records at the terminal of each gasoline cargo tank test result as required in paragraph (b) of this section, an owner or operator may comply with the requirements in either paragraph (c)(1) or paragraph (c)(2) of this section.
- (1) An electronic copy of each record is instantly available at the terminal.
    - (i) The copy of each record in paragraph (c)(1) of this section is an exact duplicate image of the original paper record with certifying signatures.
    - (ii) The Administrator is notified in writing that each terminal using this alternative is in compliance with paragraph (c)(1) of this section.
  - (2) For facilities that use a terminal automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (e.g., via a card lock-out system), a copy of the documentation is made available (e.g., via facsimile) for inspection by the Administrator's delegated representatives during the course of a site visit, or within a mutually agreeable time frame.
    - (i) The copy of each record in paragraph (c)(2) of this section is an exact duplicate image of the original paper record with certifying signatures.
    - (ii) The Administrator is notified in writing that each terminal using this alternative is in compliance with paragraph (c)(2) of this section.
- (d) Each owner or operator subject to the equipment leak provisions of § 63.11089 shall prepare and maintain a record describing the types, identification numbers, and locations of all equipment in gasoline service. For facilities electing to implement an instrument program under § 63.11089, the record shall contain a full description of the program.

- (e) Each owner or operator of an affected source subject to equipment leak inspections under § 63.11089 shall record in the log book for each leak that is detected the information specified in paragraphs (e)(1) through (7) of this section.
  - (1) The equipment type and identification number.
  - (2) The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell).
  - (3) The date the leak was detected and the date of each attempt to repair the leak.
  - (4) Repair methods applied in each attempt to repair the leak.
  - (5) "Repair delayed" and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak.
  - (6) The expected date of successful repair of the leak if the leak is not repaired within 15 days.
  - (7) The date of successful repair of the leak.
- (f) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall:
  - (1) Keep an up-to-date, readily accessible record of the continuous monitoring data required under § 63.11092(b) or § 63.11092(e). This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred or, alternatively, shall record the operating parameter data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record.
  - (2) Record and report simultaneously with the Notification of Compliance Status required under § 63.11093(b):
    - (i) All data and calculations, engineering assessments, and manufacturer's recommendations used in determining the operating parameter value under § 63.11092(b) or § 63.11092(e); and
    - (ii) The following information when using a flare under provisions of § 63.11(b) to comply with § 63.11087(a):
      - (A) Flare design (i.e., steam-assisted, air-assisted, or non-assisted); and
      - (B) All visible emissions (VE) readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required under § 63.11092(e)(3).
  - (3) Keep an up-to-date, readily accessible copy of the monitoring and inspection plan required under § 63.11092(b)(1)(i)(B)(2) or § 63.11092(b)(1)(iii)(B)(2).
  - (4) Keep an up-to-date, readily accessible record of all system malfunctions, as specified in § 63.11092(b)(1)(i)(B)(2)(v) or § 63.11092(b)(1)(iii)(B)(2)(v).
  - (5) If an owner or operator requests approval to use a vapor processing system or monitor an operating parameter other than those specified in § 63.11092(b), the owner or operator shall submit a description of planned reporting and recordkeeping procedures.
- (g) Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (g)(1) and (2) of this section.
  - (1) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

- (2) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.11085(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[73 FR 1933, Jan. 10, 2008, as amended at 76 FR 4178, Jan. 24, 2011]

### § 63.11095 What are my reporting requirements?

- (a) Each owner or operator of a bulk terminal or a pipeline breakout station subject to the control requirements of this subpart shall include in a semiannual compliance report to the Administrator the following information, as applicable:
  - (1) For storage vessels, if you are complying with options 2(a), 2(b), or 2(c) in Table 1 to this subpart, the information specified in § 60.115b(a), § 60.115b(b), or § 60.115b(c) of this chapter, depending upon the control equipment installed, or, if you are complying with option 2(d) in Table 1 to this subpart, the information specified in § 63.1066.
  - (2) For loading racks, each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility.
  - (3) For equipment leak inspections, the number of equipment leaks not repaired within 15 days after detection.
  - (4) For storage vessels complying with § 63.11087(b) after January 10, 2011, the storage vessel's Notice of Compliance Status information can be included in the next semi-annual compliance report in lieu of filing a separate Notification of Compliance Status report under § 63.11093.
- (b) Each owner or operator of an affected source subject to the control requirements of this subpart shall submit an excess emissions report to the Administrator at the time the semiannual compliance report is submitted. Excess emissions events under this subpart, and the information to be included in the excess emissions report, are specified in paragraphs (b)(1) through (5) of this section.
  - (1) Each instance of a non-vapor-tight gasoline cargo tank loading at the facility in which the owner or operator failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained.
  - (2) Each reloading of a non-vapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with § 63.11094(b).
  - (3) Each exceedance or failure to maintain, as appropriate, the monitored operating parameter value determined under § 63.11092(b). The report shall include the monitoring data for the days on which exceedances or failures to maintain have occurred, and a description and timing of the steps taken to repair or perform maintenance on the vapor collection and processing systems or the CMS.
  - (4) Each instance in which malfunctions discovered during the monitoring and inspections required under § 63.11092(b)(1)(i)(B)(2) and (b)(1)(iii)(B)(2) were not resolved according to the necessary corrective actions described in the monitoring and inspection plan. The report shall include a description of the malfunction and the timing of the steps taken to correct the malfunction.
  - (5) For each occurrence of an equipment leak for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection:
    - (i) The date on which the leak was detected;

- (ii) The date of each attempt to repair the leak;
  - (iii) The reasons for the delay of repair; and
  - (iv) The date of successful repair.
- (c) Each owner or operator of a bulk gasoline plant or a pipeline pumping station shall submit a semiannual excess emissions report, including the information specified in paragraphs (a)(3) and (b)(5) of this section, only for a 6-month period during which an excess emission event has occurred. If no excess emission events have occurred during the previous 6-month period, no report is required.
- (d) Each owner or operator of an affected source under this subpart shall submit a semiannual report including the number, duration, and a brief description of each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. 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 § 63.11085(a), including actions taken to correct a malfunction. The report may be submitted as a part of the semiannual compliance report, if one is required. Owners or operators of affected bulk plants and pipeline pumping stations are not required to submit reports for periods during which no malfunctions occurred.

[73 FR 1933, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4178, Jan. 24, 2011]

#### OTHER REQUIREMENTS AND INFORMATION

### § 63.11098 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions apply to you.

### § 63.11099 Who implements and enforces this subpart?

- (a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as the applicable State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities specified in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or tribal agency.
- (c) The authorities that cannot be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.
  - (1) Approval of alternatives to the requirements in §§ 63.11086 through 63.11088 and § 63.11092. Any owner or operator requesting to use an alternative means of emission limitation for storage vessels in Table 1 to this subpart must follow either the provisions in § 60.114b of this chapter if you are complying with options 2(a), 2(b), or 2(c) in Table 1 to this subpart, or the provisions in § 63.1064 if you are complying with option 2(d) in Table 1 to this subpart.
  - (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.



- (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.
- (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

### § 63.11100 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA), in subparts A, K, Ka, Kb, and XX of part 60 of this chapter, or in subparts A, R, and WW of this part. All terms defined in both subpart A of part 60 of this chapter and subparts A, R, and WW of this part shall have the meaning given in subparts A, R, and WW of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

**Administrator** means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this subpart).

**Bulk gasoline plant** means any gasoline storage and distribution facility that receives gasoline by pipeline, ship or barge, or cargo tank, and subsequently loads the gasoline into gasoline cargo tanks for transport to gasoline dispensing facilities, and has a gasoline throughput of less than 20,000 gallons per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal, State, or local law, and discoverable by the Administrator and any other person.

**Bulk gasoline terminal** means any gasoline storage and distribution facility that receives gasoline by pipeline, ship or barge, or cargo tank and has a gasoline throughput of 20,000 gallons per day or greater. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal, State, or local law and discoverable by the Administrator and any other person.

**Equipment** means each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in the gasoline liquid transfer and vapor collection systems. This definition also includes the entire vapor processing system except the exhaust port(s) or stack(s).

**Flare** means a thermal oxidation system using an open (without enclosure) flame.

**Gasoline** means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines.

**Gasoline cargo tank** means a delivery tank truck or railcar which is loading gasoline or which has loaded gasoline on the immediately previous load.

**Gasoline storage tank or vessel** means each tank, vessel, reservoir, or container used for the storage of gasoline, but does not include:

- (1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of gasoline or gasoline vapors;
- (2) Subsurface caverns or porous rock reservoirs;
- (3) Oil/water separators and sumps, including butane blending sample recovery tanks, used to collect drained material such that it can be pumped to storage or back into a process; or
- (4) Tanks or vessels permanently attached to mobile sources such as trucks, railcars, barges, or ships.

**In gasoline service** means that a piece of equipment is used in a system that transfers gasoline or gasoline vapors.

**Monthly** means once per calendar month at regular intervals of no less than 28 days and no more than 35 days.

**Operating parameter value** means a value for an operating or emission parameter of the vapor processing system (e.g., temperature) which, if maintained continuously by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with the applicable emission standard. The operating parameter value is determined using the procedures specified in § 63.11092(b).

**Pipeline breakout station** means a facility along a pipeline containing storage vessels used to relieve surges or receive and store gasoline from the pipeline for re-injection and continued transportation by pipeline or to other facilities.

**Pipeline pumping station** means a facility along a pipeline containing pumps to maintain the desired pressure and flow of product through the pipeline, and not containing gasoline storage tanks other than surge control tanks.

**Submerged filling** means, for the purposes of this subpart, the filling of a gasoline cargo tank or a stationary storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in § 63.11086(a) from the bottom of the tank. Bottom filling of gasoline cargo tanks or storage tanks is included in this definition.

**Surge control tank or vessel** means, for the purposes of this subpart, those tanks or vessels used only for controlling pressure in a pipeline system during surges or other variations from normal operations.

**Vapor collection-equipped gasoline cargo tank** means a gasoline cargo tank that is outfitted with the equipment necessary to transfer vapors, displaced during the loading of gasoline into the cargo tank, to a vapor processor system.

**Vapor-tight gasoline cargo tank** means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in § 63.11092(f).

[73 FR 1933, Jan. 10, 2008, as amended at 76 FR 4178, Jan. 24, 2011]

**Table 1 to Subpart BBBBBB of Part 63 - Applicability Criteria, Emission Limits, and Management Practices for Storage Tanks**

If you own or operate . . .	Then you must . . .
1. A gasoline storage tank meeting either of the following conditions: (i) a capacity of less than 75 cubic meters (m <sup>3</sup> ); or (ii) a capacity of less than 151 m <sup>3</sup> and a gasoline throughput of 480 gallons per day or less. Gallons per day is calculated by summing the current day's throughput, plus the throughput for the previous 364 days, and then dividing that sum by 365	Equip each gasoline storage tank with a fixed roof that is mounted to the storage tank in a stationary manner, and maintain all openings in a closed position at all times when not in use.

If you own or operate . . .	Then you must . . .
2. A gasoline storage tank with a capacity of greater than or equal to 75 m <sup>3</sup> and not meeting any of the criteria specified in item 1 of this Table	Do the following: (a) Reduce emissions of total organic HAP or TOC by 95 weight-percent with a closed vent system and control device, as specified in § 60.112b(a)(3) of this chapter; or
	(b) Equip each internal floating roof gasoline storage tank according to the requirements in § 60.112b(a)(1) of this chapter, except for the secondary seal requirements under § 60.112b(a)(1)(ii)(B) and the requirements in § 60.112b(a)(1)(iv) through (ix) of this chapter; and
	(c) Equip each external floating roof gasoline storage tank according to the requirements in § 60.112b(a)(2) of this chapter, except that the requirements of § 60.112b(a)(2)(ii) of this chapter shall only be required if such storage tank does not currently meet the requirements of § 60.112b(a)(2)(i) of this chapter; or
	(d) Equip and operate each internal and external floating roof gasoline storage tank according to the applicable requirements in § 63.1063(a)(1) and (b), except for the secondary seal requirements under § 63.1063(a)(1)(i)(C) and (D), and equip each external floating roof gasoline storage tank according to the requirements of § 63.1063(a)(2) if such storage tank does not currently meet the requirements of § 63.1063(a)(1).
3. A surge control tank	Equip each tank with a fixed roof that is mounted to the tank in a stationary manner and with a pressure/vacuum vent with a positive cracking pressure of no less than 0.50 inches of water. Maintain all openings in a closed position at all times when not in use.

[76 FR 4179, Jan. 24, 2011]

**Table 2 to Subpart BBBBBB of Part 63 - Applicability Criteria, Emission Limits, and Management Practices for Loading Racks**

If you own or operate . . .	Then you must . . .
1. A bulk gasoline terminal loading rack(s) with a gasoline throughput (total of all racks) of 250,000 gallons per day, or greater. Gallons per day is calculated by summing the current day's throughput, plus the throughput for the previous 364 days, and then dividing that sum by 365	(a) Equip your loading rack(s) with a vapor collection system designed to collect the TOC vapors displaced from cargo tanks during product loading; and (b) Reduce emissions of TOC to less than or equal to 80 mg/l of gasoline loaded into gasoline cargo tanks at the loading rack; and (c) Design and operate the vapor collection system to prevent any TOC vapors collected at one loading rack or lane from passing through another loading rack or lane to the atmosphere; and (d) Limit the loading of gasoline into gasoline cargo tanks that are vapor tight using the procedures specified in § 60.502(e) through (j) of this chapter. For

If you own or operate . . .	Then you must . . .
	the purposes of this section, the term "tank truck" as used in § 60.502(e) through (j) of this chapter means "cargo tank" as defined in § 63.11100.
2. A bulk gasoline terminal loading rack(s) with a gasoline throughput (total of all racks) of less than 250,000 gallons per day. Gallons per day is calculated by summing the current day's throughput, plus the throughput for the previous 364 days, and then dividing that sum by 365	(a) Use submerged filling with a submerged fill pipe that is no more than 6 inches from the bottom of the cargo tank; and (b) Make records available within 24 hours of a request by the Administrator to document your gasoline throughput.

[76 FR 4179, Jan. 24, 2011]

**Table 3 to Subpart BBBBBB of Part 63 - Applicability of General Provisions**

Citation	Subject	Brief description	Applies to subpart BBBBBB
§ 63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications	Yes, specific requirements given in § 63.11081.
§ 63.1(c)(2)	Title V permit	Requirements for obtaining a title V permit from the applicable permitting authority	Yes, § 63.11081(b) of subpart BBBBBB exempts identified area sources from the obligation to obtain title V operating permits.
§ 63.2	Definitions	Definitions for part 63 standards	Yes, additional definitions in § 63.11100.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§ 63.4	Prohibited Activities and Circumvention	Prohibited activities; circumvention, severability	Yes.
§ 63.5	Construction/ Reconstruction	Applicability; applications; approvals	Yes.
§ 63.6(a)	Compliance with Standards/ Operation &	General Provisions apply unless compliance extension; General Provisions apply to area sources that become major	Yes.

Citation	Subject	Brief description	Applies to subpart BBBBBB
	Maintenance Applicability		
§ 63.6(b)(1)-(4)	Compliance Dates for New and Reconstructed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for CAA section 112(f)	Yes.
§ 63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§ 63.6(b)(6)	[Reserved]		
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources that Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	No.
§ 63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Comply according to date in this subpart, which must be no later than 3 years after effective date; for CAA section 112(f) standards, comply within 90 days of effective date unless compliance extension	No, § 63.11083 specifies the compliance dates.
§ 63.6(c)(3)-(4)	[Reserved]		
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources that Become Major	Area sources that become major must comply with major source standards by date indicated in this subpart or by equivalent time period (e.g., 3 years)	No.
§ 63.6(d)	[Reserved]		
63.6(e)(1)(i)	General duty to minimize emissions	Operate to minimize emissions at all times; information Administrator will use to determine if operation and maintenance requirements were met	No. See § 63.11085 for general duty requirement.
63.6(e)(1)(ii)	Requirement to correct malfunctions as soon as possible	Owner or operator must correct malfunctions as soon as possible	No.
§ 63.6(e)(2)	[Reserved]		
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction (SSM) plan	Requirement for SSM plan; content of SSM plan; actions during SSM	No.

Citation	Subject	Brief description	Applies to subpart BBBBBB
§ 63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	No.
§ 63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§ 63.6(g)(1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§ 63.6(h)(1)	Compliance with Opacity/VE Standards	You must comply with opacity/VE standards at all times except during SSM	No.
§ 63.6(h)(2)(i)	Determining Compliance with Opacity/VE Standards	If standard does not State test method, use EPA Method 9 for opacity in appendix A of part 60 of this chapter and EPA Method 22 for VE in appendix A of part 60 of this chapter	No.
§ 63.6(h)(2)(ii)	[Reserved]		
§ 63.6(h)(2)(iii)	Using Previous Tests to Demonstrate Compliance with Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart	No.
§ 63.6(h)(3)	[Reserved]		
§ 63.6(h)(4)	Notification of Opacity/VE Observation Date	Must notify Administrator of anticipated date of observation	No.
§ 63.6(h)(5)(i), (iii)-(v)	Conducting Opacity/VE Observations	Dates and schedule for conducting opacity/VE observations	No.
§ 63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times	Must have at least 3 hours of observation with 30 6-minute averages	No.
§ 63.6(h)(6)	Records of Conditions During Opacity/VE Observations	Must keep records available and allow Administrator to inspect	No.
§ 63.6(h)(7)(i)	Report Continuous Opacity Monitoring System	Must submit COMS data with other performance test data	No.

Citation	Subject	Brief description	Applies to subpart BBBBBB
	(COMS) Monitoring Data from Performance Test		
§ 63.6(h)(7)(ii)	Using COMS Instead of EPA Method 9	Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in appendix A of part 60 of this chapter, but must notify Administrator before performance test	No.
§ 63.6(h)(7)(iii)	Averaging Time for COMS During Performance Test	To determine compliance, must reduce COMS data to 6-minute averages	No.
§ 63.6(h)(7)(iv)	COMS Requirements	Owner/operator must demonstrate that COMS performance evaluations are conducted according to § 63.8(e); COMS are properly maintained and operated according to § 63.8(c) and data quality as § 63.8(d)	No.
§ 63.6(h)(7)(v)	Determining Compliance with Opacity/ VE Standards	COMS is probable but not conclusive evidence of compliance with opacity standard, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence—proper maintenance, meeting Performance Specification 1 in appendix B of part 60 of this chapter, and data have not been altered	No.
§ 63.6(h)(8)	Determining Compliance with Opacity/ VE Standards	Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance	No.
§ 63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard	No.
§ 63.6(i)(1)-(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.
§ 63.6(j)	Presidential Compliance Exemption	President may exempt any source from requirement to comply with this subpart	Yes.
§ 63.7(a)(2)	Performance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date	Yes.
§ 63.7(a)(3)	Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes.

Citation	Subject	Brief description	Applies to subpart BBBBBB
§ 63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.
§ 63.7(b)(2)	Notification of Re-scheduling	If have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay	Yes.
§ 63.7(c)	Quality Assurance (QA)/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	Yes.
§ 63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
63.7(e)(1)	Conditions for Conducting Performance Tests	Performance test must be conducted under representative conditions	No, § 63.11092(g) specifies conditions for conducting performance tests.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to this subpart and EPA test methods unless Administrator approves alternative	Yes.
§ 63.7(e)(3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used	Yes, except for testing conducted under § 63.11092(a).
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method	Yes.
§ 63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the notification of compliance status; keep data for 5 years	Yes.
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§ 63.8(a)(2)	Performance Specifications	Performance specifications in appendix B of 40 CFR part 60 apply	Yes.
§ 63.8(a)(3)	[Reserved]		



Citation	Subject	Brief description	Applies to subpart BBBBBB
§ 63.8(a)(4)	Monitoring of Flares	Monitoring requirements for flares in § 63.11 apply	Yes.
§ 63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.
§ 63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	Yes.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	Yes.
§ 63.8(c)(1)(i)	Operation and Maintenance of CMS	Must maintain and operate each CMS as specified in § 63.6(e)(1)	No.
§ 63.8(c)(1)(ii)	Operation and Maintenance of CMS	Must keep parts for routine repairs readily available	Yes.
§ 63.8(c)(1)(iii)	Operation and Maintenance of CMS	Requirement to develop SSM Plan for CMS	No.
§ 63.8(c) (2)-(8)	CMS Requirements	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test	Yes.
§ 63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions	No.
§ 63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	Yes.
§ 63.8(f) (1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for CEMS	Yes.
§ 63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages	Yes.

Citation	Subject	Brief description	Applies to subpart BBBBBB
		computed over at least 4 equally spaced data points; data that cannot be used in average	
§ 63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§ 63.9(b)(1)-(2), (4)-(5)	Initial Notifications	Submit notification within 120 days after effective date, or no later than 120 days after the source becomes subject to this subpart, whichever is later; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each	Yes.
§ 63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Sources	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§ 63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§ 63.9(g)	Additional Notifications When Using CMS	Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative	Yes, however, there are no opacity standards.
§ 63.9(h)(1)-(6)	Notification of Compliance Status	Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority	Yes, except as specified in § 63.11095(a)(4); also, there are no opacity standards.
§ 63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change when notifications must be submitted	Yes.
§ 63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.

Citation	Subject	Brief description	Applies to subpart BBBBBB
§ 63.9(k)	Notifications	Electronic reporting procedures	Yes, only as specified by § 63.9(j).
§ 63.10(a)	Record-keeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	Yes.
§ 63.10(b)(1)	Record-keeping/Reporting	General requirements; keep all records readily available; keep for 5 years	Yes.
§ 63.10(b)(2)(i)	Records related to SSM	Recordkeeping of occurrence and duration of startups and shutdowns	No.
§ 63.10(b)(2)(ii)	Records related to SSM	Recordkeeping of malfunctions	No. See § 63.11094(g) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.
§ 63.10(b)(2)(iii)	Maintenance records	Recordkeeping of maintenance on air pollution control and monitoring equipment	Yes.
§ 63.10(b)(2)(iv)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§ 63.10(b)(2)(v)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§ 63.10(b)(2)(vi)-(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	Yes.
§ 63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§ 63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§ 63.10(b)(2)(xiv)	Records	All documentation supporting initial notification and notification of compliance status	Yes.
§ 63.10(b)(3)	Records	Applicability determinations	Yes.
§ 63.10(c)	Records	Additional records for CMS	No.
§ 63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.

Citation	Subject	Brief description	Applies to subpart BBBBBB
§ 63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	No.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§ 63.10(d)(5)	SSM Reports	Contents and submission	No. See § 63.11095(d) for malfunction reporting requirements.
§ 63.10(e)(1)-(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; 2-3 copies of COMS performance evaluation	No.
§ 63.10(e)(3)(i)-(iii)	Reports	Schedule for reporting excess emissions	Yes, note that § 63.11095 specifies excess emission events for this subpart.
§ 63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13)	Yes, § 63.11095 specifies excess emission events for this subpart.
§ 63.10(e)(3)(vi)-(viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for CMS; requires all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13)	Yes.
§ 63.10(e)(4)	Reporting COMS Data	Must submit COMS data with performance test data	Yes.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.

Citation	Subject	Brief description	Applies to subpart BBBBBB
§ 63.11(b)	Flares	Requirements for flares	Yes, the section references § 63.11(b).
§ 63.12	Delegation	State authority to enforce standards	Yes.
§ 63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§ 63.14	Incorporations by Reference	Test methods incorporated by reference	Yes.
§ 63.15	Availability of Information	Public and confidential information	Yes.

[73 FR 1933, Jan. 10, 2008, as amended at 76 FR 4180, Jan. 24, 2011; 85 FR 73919, Nov. 19, 2020]

## **Appendix D**

40 C.F.R. Part 63, Subpart ZZZZ - *National Emissions Standards for Hazardous Air Pollutants  
for Stationary Reciprocating Internal Combustion Engines*



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This content is from the eCFR and is authoritative but unofficial.

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## Title 40 - Protection of Environment

### Chapter I - Environmental Protection Agency

#### Subchapter C - Air Programs

#### Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories

Authority: 42 U.S.C. 7401 *et seq.*

Source: 57 FR 61992, Dec. 29, 1992, unless otherwise noted.

#### Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

##### What This Subpart Covers

- § 63.6580 What is the purpose of subpart ZZZZ?
- § 63.6585 Am I subject to this subpart?
- § 63.6590 What parts of my plant does this subpart cover?
- § 63.6595 When do I have to comply with this subpart?

##### Emission and Operating Limitations

- § 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?
- § 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?
- § 63.6602 What emission limitations and other requirements must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?
- § 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
- § 63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

##### General Compliance Requirements

- § 63.6605 What are my general requirements for complying with this subpart?

##### Testing and Initial Compliance Requirements

- § 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?
- § 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE



with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

§ 63.6615 When must I conduct subsequent performance tests?

§ 63.6620 What performance tests and other procedures must I use?

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

§ 63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

#### Continuous Compliance Requirements

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

#### Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

§ 63.6650 What reports must I submit and when?

§ 63.6655 What records must I keep?

§ 63.6660 In what form and how long must I keep my records?

#### Other Requirements and Information

§ 63.6665 What parts of the General Provisions apply to me?

§ 63.6670 Who implements and enforces this subpart?

§ 63.6675 What definitions apply to this subpart?

#### Table 1a to Subpart ZZZZ of Part 63

Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

#### Table 1b to Subpart ZZZZ of Part 63

Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

#### Table 2a to Subpart ZZZZ of Part 63

Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE  $\geq$ 250 HP Located at a Major Source of HAP Emissions

#### Table 2b to Subpart ZZZZ of Part 63

Operating Limitations for New and Reconstructed 2SLB and CI  
Stationary RICE >500 HP Located at a Major Source of HAP  
Emissions, New and Reconstructed 4SLB Stationary RICE  $\geq$ 250  
HP Located at a Major Source of HAP Emissions, Existing CI  
Stationary RICE >500 HP

**Table 2c to Subpart ZZZZ of Part 63**

Requirements for Existing Compression Ignition Stationary RICE  
Located at a Major Source of HAP Emissions and Existing Spark  
Ignition Stationary RICE  $\leq$ 500 HP Located at a Major Source of  
HAP Emissions

**Table 2d to Subpart ZZZZ of Part 63**

Requirements for Existing Stationary RICE Located at Area  
Sources of HAP Emissions

**Table 3 to Subpart ZZZZ of Part 63**

Subsequent Performance Tests

**Table 4 to Subpart ZZZZ of Part 63**

Requirements for Performance Tests

**Table 5 to Subpart ZZZZ of Part 63**

Initial Compliance With Emission Limitations, Operating  
Limitations, and Other Requirements

**Table 6 to Subpart ZZZZ of Part 63**

Continuous Compliance With Emission Limitations, and Other  
Requirements

**Table 7 to Subpart ZZZZ of Part 63**

Requirements for Reports

**Table 8 to Subpart ZZZZ of Part 63**

Applicability of General Provisions to Subpart ZZZZ.

**Appendix A to Subpart ZZZZ of Part 63**

Protocol for Using an Electrochemical Analyzer to Determine  
Oxygen and Carbon Monoxide Concentrations From Certain  
Engines

**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary  
Reciprocating Internal Combustion Engines**

**Source:** 69 FR 33506, June 15, 2004, unless otherwise noted.

WHAT THIS SUBPART COVERS

## § 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

## § 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

- (a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
- (b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.
- (c) An area source of HAP emissions is a source that is not a major source.
- (d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.
- (e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.
- (f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in § 63.6675, which includes operating according to the provisions specified in § 63.6640(f).
  - (1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate for the purpose specified in § 63.6640(f)(4)(ii).
  - (2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate for the purpose specified in § 63.6640(f)(4)(ii).
  - (3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate for the purpose specified in § 63.6640(f)(4)(ii).

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013; 87 FR 48607, Aug. 10, 2022]

## § 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

- (a) **Affected source.** An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
  - (1) **Existing stationary RICE.**
    - (i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.
    - (ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
    - (iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
    - (iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.
  - (2) **New stationary RICE.**
    - (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.
    - (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
    - (iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
  - (3) **Reconstructed stationary RICE.**
    - (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after December 19, 2002.
    - (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after June 12, 2006.
    - (iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after June 12, 2006.
- (b) **Stationary RICE subject to limited requirements.**
  - (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6645(f).

- (i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
  - (ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
- (2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of § 63.6645(f) and the requirements of §§ 63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.
- (3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:
  - (i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
  - (ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
  - (iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
  - (iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
  - (v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
- (c) **Stationary RICE subject to Regulations under 40 CFR Part 60.** An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
  - (1) A new or reconstructed stationary RICE located at an area source;
  - (2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
  - (3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;
  - (4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
  - (5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
  - (6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

- (7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013; 87 FR 48607, Aug. 10, 2022]

### § 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.*

- (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.
- (2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.
- (3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.
- (5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.
- (7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

- (b) **Area sources that become major sources.** If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.
  - (1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.
  - (2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.
- (c) If you own or operate an affected source, you must meet the applicable notification requirements in § 63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 78 FR 6701, Jan. 30, 2013]

#### EMISSION AND OPERATING LIMITATIONS

### **§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

- (a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.
- (b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.
- (c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.
- (d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

**§ 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

**§ 63.6602 What emission limitations and other requirements must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?**

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

[78 FR 6701, Jan. 30, 2013]

**§ 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

- (a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.
- (b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.
  - (1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).



- (2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.
  - (i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.
  - (ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.
  - (iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.
- (c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:
  - (1) Change oil every 1,000 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement.
  - (2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.
  - (3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.
  - (4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
- (d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in § 63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in § 63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.
- (e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60

subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

- (f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in § 63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in § 63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in § 63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013]

#### § 63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

- (a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel.
- (b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates for the purpose specified in § 63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.
- (c) [Reserved]
- (d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either § 63.6603(b)(1) or § 63.6603(b)(2), or are on offshore vessels that meet § 63.6603(c) are exempt from the requirements of this section.

[78 FR 6702, Jan. 30, 2013, as amended at 85 FR 78463, Dec. 4, 2020; 87 FR 48607, Aug. 10, 2022]

### GENERAL COMPLIANCE REQUIREMENTS

#### § 63.6605 What are my general requirements for complying with this subpart?

- (a) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.
- (b) 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. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. 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.

[75 FR 9675, Mar. 3, 2010, as amended at 78 FR 6702, Jan. 30, 2013]

#### TESTING AND INITIAL COMPLIANCE REQUIREMENTS

### **§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?**

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

- (a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions in § 63.7(a)(2).
- (b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).
- (c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).
- (d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.
  - (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
  - (2) The test must not be older than 2 years.
  - (3) The test must be reviewed and accepted by the Administrator.
  - (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.
  - (5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

**§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?**

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

**§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?**

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

- (a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions in § 63.7(a)(2).
- (b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.
  - (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
  - (2) The test must not be older than 2 years.
  - (3) The test must be reviewed and accepted by the Administrator.
  - (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

**§ 63.6615 When must I conduct subsequent performance tests?**

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

**§ 63.6620 What performance tests and other procedures must I use?**

- (a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

- (1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.
- (2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.
- (3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.
- (4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.

(e)

(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

$C_i$  = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

$C_o$  = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO<sub>2</sub>). If pollutant concentrations are to be corrected to 15 percent oxygen and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific  $F_o$  value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_O = \frac{0.209 F_d}{F_C} \quad (\text{Eq. 2})$$

Where:

$F_O$  = Fuel factor based on the ratio of oxygen volume to the ultimate  $\text{CO}_2$  volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

$F_d$  = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19,  $\text{dsm}^3/\text{J}$  ( $\text{dscf}/10^6 \text{ Btu}$ ).

$F_C$  = Ratio of the volume of  $\text{CO}_2$  produced to the gross calorific value of the fuel from Method 19,  $\text{dsm}^3/\text{J}$  ( $\text{dscf}/10^6 \text{ Btu}$ )

- (ii) Calculate the  $\text{CO}_2$  correction factor for correcting measurement data to 15 percent  $\text{O}_2$ , as follows:

$$X_{\text{CO}_2} = \frac{5.9}{F_O} \quad (\text{Eq. 3})$$

Where:

$X_{\text{CO}_2}$  =  $\text{CO}_2$  correction factor, percent.

5.9 = 20.9 percent  $\text{O}_2$  - 15 percent  $\text{O}_2$ , the defined  $\text{O}_2$  correction value, percent.

- (iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent  $\text{O}_2$  using  $\text{CO}_2$  as follows:

$$C_{adj} = C_d \frac{X_{\text{CO}_2}}{\% \text{CO}_2} \quad (\text{Eq. 4})$$

Where:

$C_{adj}$  = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent  $\text{O}_2$ .

$C_d$  = Measured concentration of CO, THC, or formaldehyde, uncorrected.

$X_{\text{CO}_2}$  =  $\text{CO}_2$  correction factor, percent.

$\% \text{CO}_2$  = Measured  $\text{CO}_2$  concentration measured, dry basis, percent.

- (f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and

you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

- (g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.
  - (1) Identification of the specific parameters you propose to use as operating limitations;
  - (2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;
  - (3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
  - (4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
  - (5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
- (h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.
  - (1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (e.g., operator adjustment, automatic controller adjustment, etc.) or unintentionally (e.g., wear and tear, error, etc.) on a routine basis or over time;
  - (2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;
  - (3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;
  - (4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
  - (5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;
  - (6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and
  - (7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.
- (i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the

engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010; 78 FR 6702, Jan. 30, 2013]

## § 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

- (a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either O<sub>2</sub> or CO<sub>2</sub> according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.
  - (1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.
  - (2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in § 63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
  - (3) As specified in § 63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.
  - (4) The CEMS data must be reduced as specified in § 63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO<sub>2</sub> concentration.
- (b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.
  - (1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in § 63.8(d). As specified in § 63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.
    - (i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
    - (ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;



- (iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;
  - (iv) Ongoing operation and maintenance procedures in accordance with provisions in § 63.8(c)(1)(ii) and (c)(3); and
  - (v) Ongoing reporting and recordkeeping procedures in accordance with provisions in § 63.10(c), (e)(1), and (e)(2)(i).
- (2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.
  - (3) The CPMS must collect data at least once every 15 minutes (see also § 63.6635).
  - (4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.
  - (5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.
  - (6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.
- (c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.
  - (d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.
  - (e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:
    - (1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;
    - (2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;
    - (3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;
    - (4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;
    - (5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;
    - (6) An existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.

- (7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
  - (8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
  - (9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and
  - (10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.
- (f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
- (g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either § 63.6603(b)(1) or § 63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet § 63.6603(c) do not have to meet the requirements of this paragraph (g).
- (1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
  - (2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.
- (h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.
- (i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation,

whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

- (j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6703, Jan. 30, 2013]

### **§ 63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?**

- (a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.
- (b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.
- (c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.6645.
- (d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.
- (e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:
- (1) The compliance demonstration must consist of at least three test runs.

- (2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
- (3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.
- (4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.
- (5) You must measure O<sub>2</sub> using one of the O<sub>2</sub> measurement methods specified in Table 4 of this subpart. Measurements to determine O<sub>2</sub> concentration must be made at the same time as the measurements for CO or THC concentration.
- (6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O<sub>2</sub> emissions simultaneously at the inlet and outlet of the control device.

[69 FR 33506, June 15, 2004, as amended at 78 FR 6704, Jan. 30, 2013]

#### CONTINUOUS COMPLIANCE REQUIREMENTS

### § 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

- (a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.
- (b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- (c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

### § 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

- (a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.
- (b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in § 63.6650. If you change your catalyst, you must

reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

- (c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:
- (1) The compliance demonstration must consist of at least one test run.
  - (2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
  - (3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.
  - (4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.
  - (5) You must measure O<sub>2</sub> using one of the O<sub>2</sub> measurement methods specified in Table 4 of this subpart. Measurements to determine O<sub>2</sub> concentration must be made at the same time as the measurements for CO or THC concentration.
  - (6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O<sub>2</sub> emissions simultaneously at the inlet and outlet of the control device.
  - (7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.
- (d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).
- (e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or

an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for the purpose specified in paragraph (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE 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 RICE beyond 100 hours per calendar year.

(ii)-(iii) [Reserved]

(3) Emergency stationary RICE located at major sources of HAP 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 provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(4) Emergency stationary RICE located at area sources of HAP 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 provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per 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.

- (i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.
- (ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
  - (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
  - (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
  - (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
  - (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
  - (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6704, Jan. 30, 2013; 87 FR 48607, Aug. 10, 2022]

## NOTIFICATIONS, REPORTS, AND RECORDS

### § 63.6645 What notifications must I submit and when?

- (a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following:
  - (1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.
  - (2) An existing stationary RICE located at an area source of HAP emissions.
  - (3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
  - (4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.
  - (5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

- (b) As specified in § 63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004, or no later than 120 days after the source becomes subject to this subpart, whichever is later.
- (c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.
- (d) As specified in § 63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008, or no later than 120 days after the source becomes subject to this subpart, whichever is later.
- (e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.
- (f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with § 63.6590(b), your notification should include the information in § 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).
- (g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in § 63.7(b)(1).
- (h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii).
  - (1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.
  - (2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to § 63.10(d)(2).
- (i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in § 63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in § 63.6603(d) and identifying the state or local regulation that the engine is subject to.

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013; 85 FR 73912, Nov. 19, 2020]



## § 63.6650 What reports must I submit and when?

- (a) You must submit each report in Table 7 of this subpart that applies to you.
- (b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.
  - (1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.6595.
  - (2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in § 63.6595.
  - (3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
  - (4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
  - (5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.
  - (6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.6595 and ending on December 31.
  - (7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in § 63.6595.
  - (8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
  - (9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
- (c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.
  - (1) Company name and address.
  - (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
  - (3) Date of report and beginning and ending dates of the reporting period.
  - (4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.

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 § 63.6605(b), including actions taken to correct a malfunction.

- (5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
- (6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.
- (d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.
  - (1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
  - (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- (e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.
  - (1) The date and time that each malfunction started and stopped.
  - (2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
  - (3) The date, time, and duration that each CMS was out-of-control, including the information in § 63.8(c)(8).
  - (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
  - (5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
  - (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
  - (7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
  - (8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
  - (9) A brief description of the stationary RICE.
  - (10) A brief description of the CMS.
  - (11) The date of the latest CMS certification or audit.

- (12) A description of any changes in CMS, processes, or controls since the last reporting period.
- (f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.
- (g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.
- (1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.
  - (2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.
  - (3) Any problems or errors suspected with the meters.
- (h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates for the purpose specified in § 63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.
- (1) The report must contain the following information:
    - (i) Company name and address where the engine is located.
    - (ii) Date of the report and beginning and ending dates of the reporting period.
    - (iii) Engine site rating and model year.
    - (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
    - (v)-(vi) {Reserved}
    - (vii) Hours spent for operation for the purpose specified in § 63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in § 63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
    - (viii) If there were no deviations from the fuel requirements in § 63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

- (ix) If there were deviations from the fuel requirements in § 63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.
- (2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
- (3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 63.13.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010; 78 FR 6705, Jan. 30, 2013; 87 FR 48607, Aug. 10, 2022]

### § 63.6655 What records must I keep?

- (a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.
  - (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in § 63.10(b)(2)(xiv).
  - (2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
  - (3) Records of performance tests and performance evaluations as required in § 63.10(b)(2)(viii).
  - (4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
  - (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.
  - (1) Records described in § 63.10(b)(2)(vi) through (xi).
  - (2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).
  - (3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in § 63.8(f)(6)(i), if applicable.
- (c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.
- (d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

- (e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;
  - (1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.
  - (2) An existing stationary emergency RICE.
  - (3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.
- (f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purpose specified in § 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.
  - (1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.
  - (2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 78 FR 6706, Jan. 30, 2013; 87 FR 48607, Aug. 10, 2022]

### § 63.6660 In what form and how long must I keep my records?

- (a) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).
- (b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

## OTHER REQUIREMENTS AND INFORMATION

### § 63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source

of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

### § 63.6670 Who implements and enforces this subpart?

- (a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.
- (c) The authorities that will not be delegated to State, local, or tribal agencies are:
  - (1) Approval of alternatives to the non-opacity emission limitations and operating limitations in § 63.6600 under § 63.6(g).
  - (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.
  - (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.
  - (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.
  - (5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in § 63.6610(b).

### § 63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

**Alaska Railbelt Grid** means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

**Area source** means any stationary source of HAP that is not a major source as defined in part 63.

**Associated equipment** as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

**Backup power for renewable energy** means an engine that provides backup power to a facility that generates electricity from renewable energy resources, as that term is defined in Alaska Statute 42.45.045(l)(5) (incorporated by reference, see § 63.14).

**Black start engine** means an engine whose only purpose is to start up a combustion turbine.

**CAA** means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Public Law 101-549, 104 Stat. 2399).

**Commercial emergency stationary RICE** means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

**Compression ignition** means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

**Custody transfer** means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

**Deviation** means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless of whether or not such failure is permitted by this subpart.
- (4) Fails to satisfy the general duty to minimize emissions established by § 63.6(e)(1)(i).

**Diesel engine** means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

**Diesel fuel** means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (e.g. biodiesel) that is suitable for use in compression ignition engines.

**Digester gas** means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO<sub>2</sub>.

**Dual-fuel engine** means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

**Emergency stationary RICE** means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary RICE must comply with the requirements specified in § 63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in § 63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

- (1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.
- (2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 63.6640(f).
- (3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 63.6640(f)(4)(i) or (ii).

**Engine startup** means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

**Four-stroke engine** means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

**Gaseous fuel** means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

**Gasoline** means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

**Glycol dehydration unit** means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

**Hazardous air pollutants (HAP)** means any air pollutants listed in or pursuant to section 112(b) of the CAA.

**Institutional emergency stationary RICE** means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

**ISO standard day conditions** means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

**Landfill gas** means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO<sub>2</sub>.

**Lean burn engine** means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.



**Limited use stationary RICE** means any stationary RICE that operates less than 100 hours per year.

**Liquefied petroleum gas** means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

**Liquid fuel** means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

**Major Source**, as used in this subpart, shall have the same meaning as in § 63.2, except that:

- (1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;
- (2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in § 63.1271 of subpart HHH of this part, shall not be aggregated;
- (3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and
- (4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in § 63.1271 of subpart HHH of this part, shall not be aggregated.

**Malfunction** means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

**Natural gas** means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

**Non-selective catalytic reduction (NSCR)** means an add-on catalytic nitrogen oxides (NO<sub>x</sub>) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO<sub>x</sub>, CO, and volatile organic compounds (VOC) into CO<sub>2</sub>, nitrogen, and water.

**Oil and gas production facility** as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (i.e., remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the

same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

**Oxidation catalyst** means an add-on catalytic control device that controls CO and VOC by oxidation.

**Peaking unit or engine** means any standby engine intended for use during periods of high demand that are not emergencies.

**Percent load** means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

**Potential to emit** means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in § 63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to § 63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to § 63.1270(a)(2).

**Production field facility** means those oil and gas production facilities located prior to the point of custody transfer.

**Production well** means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

**Propane** means a colorless gas derived from petroleum and natural gas, with the molecular structure C<sub>3</sub>H<sub>8</sub>.

**Remote stationary RICE** means stationary RICE meeting any of the following criteria:

- (1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.
- (2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.
  - (i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.
  - (ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.
  - (iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator

stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

- (3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

**Residential emergency stationary RICE** means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

**Responsible official** means responsible official as defined in 40 CFR 70.2.

**Rich burn engine** means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO<sub>x</sub> (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

**Site-rated HP** means the maximum manufacturer's design capacity at engine site conditions.

**Spark ignition** means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

**Stationary reciprocating internal combustion engine (RICE)** means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

**Stationary RICE test cell/stand** means an engine test cell/stand, as defined in subpart P of this part, that tests stationary RICE.

**Stoichiometric** means the theoretical air-to-fuel ratio required for complete combustion.

**Storage vessel with the potential for flash emissions** means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

**Subpart** means 40 CFR part 63, subpart ZZZZ.

**Surface site** means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

*Two-stroke engine* means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011; 78 FR 6706, Jan. 30, 2013; 87 FR 48608, Aug. 10, 2022]

**Table 1a to Subpart ZZZZ of Part 63 - Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions**

As stated in §§ 63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>1</sup>
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbv or less at 15 percent O <sub>2</sub>	

<sup>1</sup> Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

**Table 1b to Subpart ZZZZ of Part 63 - Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions**

As stated in §§ 63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub> and using NSCR;	is greater than or equal to 750 °F and less than or equal to 1250 °F. <sup>1</sup>
2. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or	Comply with any operating limitations approved by the Administrator.
existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub> and not using NSCR.	

<sup>1</sup> Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6706, Jan. 30, 2013]

**Table 2a to Subpart ZZZZ of Part 63 - Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions**

As stated in §§ 63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O <sub>2</sub> . If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O <sub>2</sub> until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>1</sup>
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O <sub>2</sub>	

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O <sub>2</sub>	

<sup>1</sup> Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

**Table 2b to Subpart ZZZZ of Part 63 - Operating Limitations for New and Reconstructed 2SLB and CI Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing CI Stationary RICE >500 HP**

As stated in §§ 63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; and existing CI stationary RICE >500 HP:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. <sup>1</sup>
2. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
	inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. <sup>1</sup>
3. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and not using an oxidation catalyst; and	Comply with any operating limitations approved by the Administrator.
New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; and	
existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	

<sup>1</sup> Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6707, Jan. 30, 2013]

**Table 2c to Subpart ZZZZ of Part 63 - Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions**

As stated in §§ 63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE <sup>1</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first. <sup>2</sup> b. Inspect air cleaner every 1,000 hours of	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>3</sup>

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first. <sup>2</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O <sub>2</sub> .	
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O <sub>2</sub> ; or b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary	



For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	RICE exhaust to 23 ppmvd or less at 15 percent O <sub>2</sub> ; or b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE. <sup>1</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O <sub>2</sub> .	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O <sub>2</sub> .	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O <sub>2</sub> .	
12. Non-emergency, non-black start stationary RICE 100≤HP≤500 which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O <sub>2</sub> .	

<sup>1</sup> If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

<sup>2</sup> Sources have the option to utilize an oil analysis program as described in § 63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2c of this subpart.

<sup>3</sup> Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[78 FR 6708, Jan. 30, 2013, as amended at 78 FR 14457, Mar. 6, 2013]

**Table 2d to Subpart ZZZZ of Part 63 - Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions**

As stated in §§ 63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; <sup>1</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually,	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	whichever comes first, and replace as necessary.	
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE. <sup>2</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually,	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	whichever comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year. <sup>2</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup> ; b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	first, and replace as necessary.	
9. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.	
10. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
11. Non-emergency, non-black start 4SRB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
12. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install NSCR to reduce HAP emissions from the stationary RICE.	
13. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup> b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

<sup>1</sup> Sources have the option to utilize an oil analysis program as described in § 63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

<sup>2</sup> If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice



can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[78 FR 6709, Jan. 30, 2013]

**Table 3 to Subpart ZZZZ of Part 63 - Subsequent Performance Tests**

As stated in §§ 63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. <sup>1</sup>
2. 4SRB stationary RICE ≥5,000 HP located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually. <sup>1</sup>
3. Stationary RICE >500 HP located at major sources and new or reconstructed 4SLB stationary RICE 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually. <sup>1</sup>
4. Existing non-emergency, non-black start CI stationary RICE >500 HP that are not limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE >500 HP that are limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 5 years, whichever comes first.

<sup>1</sup> After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[78 FR 6711, Jan. 30, 2013]

**Table 4 to Subpart ZZZZ of Part 63 - Requirements for Performance Tests**

As stated in §§ 63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. reduce CO emissions	i. Select the sampling port location and the number/ location of traverse points at the inlet and outlet of the control device; and		(a) For CO and O <sub>2</sub> measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Measure the O <sub>2</sub> at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) <sup>a c</sup> (heated probe not necessary)	(b) Measurements to determine O <sub>2</sub> must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device	(1) ASTM D6522-00 (Reapproved 2005) <sup>a b c</sup> (heated probe not necessary) or Method 10 of 40 CFR part 60,	(c) The CO concentration must be at 15 percent O <sub>2</sub> , dry basis.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
			appendix A-4	
2. 4SRB stationary RICE	a. reduce formaldehyde emissions	i. Select the sampling port location and the number/ location of traverse points at the inlet and outlet of the control device; and		(a) For formaldehyde, O <sub>2</sub> , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A.
		ii. Measure O <sub>2</sub> at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) <sup>a</sup> (heated probe not necessary)	(a) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for formaldehyde or THC concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 <sup>a</sup>	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or THC concentration.
		iv. If demonstrating compliance	(1) Method 320 or 323 of 40 CFR	(a) Formaldehyde concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		with the formaldehyde percent reduction requirement, measure formalde-hyde at the inlet and the outlet of the control device	part 63, appendix A; or ASTM D6348-03 <sup>a</sup> , provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	consist of the average of the three 1-hour or longer runs.
		v. If demonstrating compliance with the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device	(1) Method 25A, reported as propane, of 40 CFR part 60, appendix A-7	(a) THC concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. limit the concentration of formalde-hyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number/ location of traverse points at the exhaust of the stationary RICE; and		(a) For formaldehyde, CO, O <sub>2</sub> , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A. If

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
				using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O <sub>2</sub> concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) <sup>a</sup> (heated probe not necessary)	(a) Measurements to determine O <sub>2</sub> concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iii. Measure moisture content of the station-ary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 <sup>a</sup>	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iv. Measure formalde-hyde at the exhaust of the station-ary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03 <sup>a</sup> , provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to	(a) Formaldehyde concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
			70 and less than or equal to 130	
		v. measure CO at the exhaust of the stationary RICE	(1) Method 10 of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (2005) <sup>a c</sup> , Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03 <sup>a</sup>	(a) CO concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

<sup>a</sup> You may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). You may obtain a copy of ASTM-D6522-00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

<sup>b</sup> You may obtain a copy of ASTM-D6348-03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[79 FR 11290, Feb. 27, 2014]

**Table 5 to Subpart ZZZZ of Part 63 - Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements**

As stated in §§ 63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-	a. Reduce CO emissions and using oxidation catalyst, and	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	using a CPMS	continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O <sub>2</sub> or CO <sub>2</sub> at both the inlet and outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average reduction of CO calculated using § 63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O <sub>2</sub> or CO <sub>2</sub> at the outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and
		ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using § 63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction, or the average reduction of emissions of THC determined from the initial performance



For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
9. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major	a. Limit the concentration	i. The average formaldehyde concentration, corrected to 15 percent

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
11. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.
13. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in § 63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O <sub>2</sub> ;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.
14. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. You have conducted an initial compliance demonstration as specified in § 63.6630(e) to show that the average reduction of emissions of CO is 75

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O <sub>2</sub> , or the average reduction of emissions of THC is 30 percent or more;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1250 °F.

[78 FR 6712, Jan. 30, 2013]

**Table 6 to Subpart ZZZZ of Part 63 - Continuous Compliance With Emission Limitations, and Other Requirements**

As stated in § 63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved <sup>a</sup> ; and ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved <sup>a</sup> ; and ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
<p>3. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP</p>	<p>a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS</p>	<p>the performance test.</p> <p>i. Collecting the monitoring data according to § 63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to § 63.6620; and</p> <p>ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and</p>
		<p>iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.</p>
<p>4. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP</p>	<p>a. Reduce formaldehyde emissions and using NSCR</p>	<p>i. Collecting the catalyst inlet temperature data according to § 63.6625(b); and</p>

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
6. Non-emergency 4SRB stationary RICE with a brake HP $\geq$ 5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved, or to demonstrate that the average reduction of emissions of THC determined from the performance test is equal to or greater than 30 percent. <sup>a</sup>
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit <sup>a</sup> ; and ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit <sup>a</sup> ; and ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP,	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the



For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
<p>existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE &gt;500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE &gt;500 HP located at an area source of HAP that are remote stationary RICE</p>		<p>manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.</p>
<p>10. Existing stationary CI RICE &gt;500 HP that are not limited use stationary RICE</p>	<p>a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst</p>	<p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and</p>
		<p>ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and</p>
		<p>iii. Reducing these data to 4-hour</p>

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
14. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in § 63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O <sub>2</sub> ; and either ii. Collecting the catalyst inlet temperature data according to § 63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		catalyst inlet temperature exceeds 1350 °F.
15. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. Conducting annual compliance demonstrations as specified in § 63.6640(c) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O <sub>2</sub> , or the average reduction of emissions of THC is 30 percent or more; and either ii. Collecting the catalyst inlet temperature data according to § 63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than or equal to 750 °F and less than or equal to 1250 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

<sup>a</sup> After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[78 FR 6715, Jan. 30, 2013]

**Table 7 to Subpart ZZZZ of Part 63 - Requirements for Reports**

As stated in § 63.6650, you must comply with the following requirements for reports:

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in § 63.6650(b)(1)-(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in § 63.6650(b)(6)-(9) for engines that are limited use stationary RICE subject to numerical emission limitations.
		b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the	i. Semiannually according to the

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
		information in § 63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), the information in § 63.6650(e); or	requirements in § 63.6650(b).
		c. If you had a malfunction during the reporting period, the information in § 63.6650(c)(4)	i. Semiannually according to the requirements in § 63.6650(b).
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and	i. Annually, according to the requirements in § 63.6650.
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters	i. See item 2.a.i.
3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period	i. Semiannually according to the requirements in § 63.6650(b)(1)-(5).
4. Emergency stationary RICE that operate for the purposes specified in § 63.6640(f)(4)(ii)	Report	a. The information in § 63.6650(h)(1)	i. annually according to the requirements in § 63.6650(h)(2)-(3).



[87 FR 48608, Aug. 10, 2022]

**Table 8 to Subpart ZZZZ of Part 63 - Applicability of General Provisions to Subpart ZZZZ.**

As stated in § 63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.1	General applicability of the General Provisions	Yes.	
§ 63.2	Definitions	Yes	Additional terms defined in § 63.6675.
§ 63.3	Units and abbreviations	Yes.	
§ 63.4	Prohibited activities and circumvention	Yes.	
§ 63.5	Construction and reconstruction	Yes.	
§ 63.6(a)	Applicability	Yes.	
§ 63.6(b)(1)-(4)	Compliance dates for new and reconstructed sources	Yes.	
§ 63.6(b)(5)	Notification	Yes.	
§ 63.6(b)(6)	[Reserved]		
§ 63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§ 63.6(c)(1)-(2)	Compliance dates for existing sources	Yes.	
§ 63.6(c)(3)-(4)	[Reserved]		
§ 63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§ 63.6(d)	[Reserved]		
§ 63.6(e)	Operation and maintenance	No.	
§ 63.6(f)(1)	Applicability of standards	No.	
§ 63.6(f)(2)	Methods for determining compliance	Yes.	
§ 63.6(f)(3)	Finding of compliance	Yes.	
§ 63.6(g)(1)-(3)	Use of alternate standard	Yes.	
§ 63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.6(i)	Compliance extension procedures and criteria	Yes.	
§ 63.6(j)	Presidential compliance exemption	Yes.	
§ 63.7(a)(1)-(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§ 63.6610, 63.6611, and 63.6612.
§ 63.7(a)(3)	CAA section 114 authority	Yes.	
§ 63.7(b)(1)	Notification of performance test	Yes	Except that § 63.7(b)(1) only applies as specified in § 63.6645.
§ 63.7(b)(2)	Notification of rescheduling	Yes	Except that § 63.7(b)(2) only applies as specified in § 63.6645.
§ 63.7(c)	Quality assurance/test plan	Yes	Except that § 63.7(c) only applies as specified in § 63.6645.
§ 63.7(d)	Testing facilities	Yes.	
§ 63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at § 63.6620.
§ 63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at § 63.6620.
§ 63.7(e)(3)	Test run duration	Yes.	
§ 63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§ 63.7(f)	Alternative test method provisions	Yes.	
§ 63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§ 63.7(h)	Waiver of tests	Yes.	
§ 63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at § 63.6625.
§ 63.8(a)(2)	Performance specifications	Yes.	
§ 63.8(a)(3)	[Reserved]		
§ 63.8(a)(4)	Monitoring for control devices	No.	
§ 63.8(b)(1)	Monitoring	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.8(b)(2)-(3)	Multiple effluents and multiple monitoring systems	Yes.	
§ 63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§ 63.8(c)(1)(i)	Routine and predictable SSM	No	
§ 63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§ 63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	No	
§ 63.8(c)(2)-(3)	Monitoring system installation	Yes.	
§ 63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§ 63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§ 63.8(c)(6)-(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§ 63.8(d)	CMS quality control	Yes.	
§ 63.8(e)	CMS performance evaluation	Yes	Except for § 63.8(e)(5)(ii), which applies to COMS.
		Except that § 63.8(e) only applies as specified in § 63.6645.	
§ 63.8(f)(1)-(5)	Alternative monitoring method	Yes	Except that § 63.8(f)(4) only applies as specified in § 63.6645.
§ 63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that § 63.8(f)(6) only applies as specified in § 63.6645.
§ 63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§ 63.6635 and 63.6640.
§ 63.9(a)	Applicability and State delegation of notification requirements	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.9(b)(1)-(5)	Initial notifications	Yes	Except that § 63.9(b)(3) is reserved.
		Except that § 63.9(b) only applies as specified in § 63.6645.	
§ 63.9(c)	Request for compliance extension	Yes	Except that § 63.9(c) only applies as specified in § 63.6645.
§ 63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that § 63.9(d) only applies as specified in § 63.6645.
§ 63.9(e)	Notification of performance test	Yes	Except that § 63.9(e) only applies as specified in § 63.6645.
§ 63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(1)	Notification of performance evaluation	Yes	Except that § 63.9(g) only applies as specified in § 63.6645.
§ 63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that § 63.9(g) only applies as specified in § 63.6645.	
§ 63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. § 63.9(h)(4) is reserved.
			Except that § 63.9(h) only applies as specified in § 63.6645.
§ 63.9(i)	Adjustment of submittal deadlines	Yes.	
§ 63.9(j)	Change in previous information	Yes.	
§ 63.9(k)	Electronic reporting procedures	Yes	Only as specified in § 63.9(j).

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§ 63.10(b)(1)	Record retention	Yes	Except that the most recent 2 years of data do not have to be retained on site.
§ 63.10(b)(2)(i)-(v)	Records related to SSM	No.	
§ 63.10(b)(2)(vi)-(xi)	Records	Yes.	
§ 63.10(b)(2)(xii)	Record when under waiver	Yes.	
§ 63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§ 63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§ 63.10(b)(3)	Records of applicability determination	Yes.	
§ 63.10(c)	Additional records for sources using CEMS	Yes	Except that § 63.10(c)(2)-(4) and (9) are reserved.
§ 63.10(d)(1)	General reporting requirements	Yes.	
§ 63.10(d)(2)	Report of performance test results	Yes.	
§ 63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.10(d)(4)	Progress reports	Yes.	
§ 63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§ 63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§ 63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§ 63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that § 63.10(e)(3)(i) (C) is reserved.
§ 63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§ 63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§ 63.11	Flares	No.	
§ 63.12	State authority and delegations	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by reference	Yes.	
§ 63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010, as amended at 78 FR 6720, Jan. 30, 2013; 85 FR 73912, Nov. 19, 2020]

## Appendix A to Subpart ZZZZ of Part 63 - Protocol for Using an Electrochemical Analyzer to Determine Oxygen and Carbon Monoxide Concentrations From Certain Engines

### 1.0 Scope and Application. What is this Protocol?

This protocol is a procedure for using portable electrochemical (EC) cells for measuring carbon monoxide (CO) and oxygen (O<sub>2</sub>) concentrations in controlled and uncontrolled emissions from existing stationary 4-stroke lean burn and 4-stroke rich burn reciprocating internal combustion engines as specified in the applicable rule.

### 1.1 Analytes. What does this protocol determine?

This protocol measures the engine exhaust gas concentrations of carbon monoxide (CO) and oxygen (O<sub>2</sub>).

Analyte	CAS No.	Sensitivity
Carbon monoxide (CO)	630-08-0	Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.
Oxygen (O <sub>2</sub> )	7782-44-7	

### 1.2 Applicability. When is this protocol acceptable?

This protocol is applicable to 40 CFR part 63, subpart ZZZZ. Because of inherent cross sensitivities of EC cells, you must not apply this protocol to other emissions sources without specific instruction to that effect.

### 1.3 Data Quality Objectives. How good must my collected data be?

Refer to Section 13 to verify and document acceptable analyzer performance.

### 1.4 Range. What is the targeted analytical range for this protocol?

The measurement system and EC cell design(s) conforming to this protocol will determine the analytical range for each gas component. The nominal ranges are defined by choosing up-scale calibration gas concentrations near the maximum anticipated flue gas concentrations for CO and O<sub>2</sub>, or no more than twice the permitted CO level.

## 1.5 Sensitivity. What minimum detectable limit will this protocol yield for a particular gas component?

The minimum detectable limit depends on the nominal range and resolution of the specific EC cell used, and the signal to noise ratio of the measurement system. The minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.

## 2.0 Summary of Protocol

In this protocol, a gas sample is extracted from an engine exhaust system and then conveyed to a portable EC analyzer for measurement of CO and O<sub>2</sub> gas concentrations. This method provides measurement system performance specifications and sampling protocols to ensure reliable data. You may use additions to, or modifications of vendor supplied measurement systems (e.g., heated or unheated sample lines, thermocouples, flow meters, selective gas scrubbers, etc.) to meet the design specifications of this protocol. Do not make changes to the measurement system from the as-verified configuration (Section 3.12).

## 3.0 Definitions

**3.1 Measurement System.** The total equipment required for the measurement of CO and O<sub>2</sub> concentrations. The measurement system consists of the following major subsystems:

**3.1.1 Data Recorder.** A strip chart recorder, computer or digital recorder for logging measurement data from the analyzer output. You may record measurement data from the digital data display manually or electronically.

**3.1.2 Electrochemical (EC) Cell.** A device, similar to a fuel cell, used to sense the presence of a specific analyte and generate an electrical current output proportional to the analyte concentration.

**3.1.3 Interference Gas Scrubber.** A device used to remove or neutralize chemical compounds that may interfere with the selective operation of an EC cell.

**3.1.4 Moisture Removal System.** Any device used to reduce the concentration of moisture in the sample stream so as to protect the EC cells from the damaging effects of condensation and to minimize errors in measurements caused by the scrubbing of soluble gases.

**3.1.5 Sample Interface.** The portion of the system used for one or more of the following: sample acquisition; sample transport; sample conditioning or protection of the EC cell from any degrading effects of the engine exhaust effluent; removal of particulate matter and condensed moisture.

**3.2 Nominal Range.** The range of analyte concentrations over which each EC cell is operated (normally 25 percent to 150 percent of up-scale calibration gas value). Several nominal ranges can be used for any given cell so long as the calibration and repeatability checks for that range remain within specifications.

**3.3 Calibration Gas.** A vendor certified concentration of a specific analyte in an appropriate balance gas.

**3.4 Zero Calibration Error.** The analyte concentration output exhibited by the EC cell in response to zero-level calibration gas.

**3.5 Up-Scale Calibration Error.** The mean of the difference between the analyte concentration exhibited by the EC cell and the certified concentration of the up-scale calibration gas.

- 3.6 Interference Check.** A procedure for quantifying analytical interference from components in the engine exhaust gas other than the targeted analytes.
- 3.7 Repeatability Check.** A protocol for demonstrating that an EC cell operated over a given nominal analyte concentration range provides a stable and consistent response and is not significantly affected by repeated exposure to that gas.
- 3.8 Sample Flow Rate.** The flow rate of the gas sample as it passes through the EC cell. In some situations, EC cells can experience drift with changes in flow rate. The flow rate must be monitored and documented during all phases of a sampling run.
- 3.9 Sampling Run.** A timed three-phase event whereby an EC cell's response rises and plateaus in a sample conditioning phase, remains relatively constant during a measurement data phase, then declines during a refresh phase. The sample conditioning phase exposes the EC cell to the gas sample for a length of time sufficient to reach a constant response. The measurement data phase is the time interval during which gas sample measurements can be made that meet the acceptance criteria of this protocol. The refresh phase then purges the EC cells with CO-free air. The refresh phase replenishes requisite O<sub>2</sub> and moisture in the electrolyte reserve and provides a mechanism to de-gas or desorb any interference gas scrubbers or filters so as to enable a stable CO EC cell response. There are four primary types of sampling runs: pre-sampling calibrations; stack gas sampling; post-sampling calibration checks; and measurement system repeatability checks. Stack gas sampling runs can be chained together for extended evaluations, providing all other procedural specifications are met.
- 3.10 Sampling Day.** A time not to exceed twelve hours from the time of the pre-sampling calibration to the post-sampling calibration check. During this time, stack gas sampling runs can be repeated without repeated recalibrations, providing all other sampling specifications have been met.
- 3.11 Pre-Sampling Calibration/Post-Sampling Calibration Check.** The protocols executed at the beginning and end of each sampling day to bracket measurement readings with controlled performance checks.
- 3.12 Performance-Established Configuration.** The EC cell and sampling system configuration that existed at the time that it initially met the performance requirements of this protocol.

## 4.0 Interferences.

When present in sufficient concentrations, NO and NO<sub>2</sub> are two gas species that have been reported to interfere with CO concentration measurements. In the likelihood of this occurrence, it is the protocol user's responsibility to employ and properly maintain an appropriate CO EC cell filter or scrubber for removal of these gases, as described in [Section 6.2.12](#).

## 5.0 Safety. [Reserved]

## 6.0 Equipment and Supplies.

### 6.1 What equipment do I need for the measurement system?

The system must maintain the gas sample at conditions that will prevent moisture condensation in the sample transport lines, both before and as the sample gas contacts the EC cells. The essential components of the measurement system are described below.



## 6.2 Measurement System Components.

- 6.2.1 Sample Probe.** A single extraction-point probe constructed of glass, stainless steel or other non-reactive material, and of length sufficient to reach any designated sampling point. The sample probe must be designed to prevent plugging due to condensation or particulate matter.
- 6.2.2 Sample Line.** Non-reactive tubing to transport the effluent from the sample probe to the EC cell.
- 6.2.3 Calibration Assembly (optional).** A three-way valve assembly or equivalent to introduce calibration gases at ambient pressure at the exit end of the sample probe during calibration checks. The assembly must be designed such that only stack gas or calibration gas flows in the sample line and all gases flow through any gas path filters.
- 6.2.4 Particulate Filter (optional).** Filters before the inlet of the EC cell to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters must be fabricated of materials that are non-reactive to the gas mixtures being sampled.
- 6.2.5 Sample Pump.** A leak-free pump to provide undiluted sample gas to the system at a flow rate sufficient to minimize the response time of the measurement system. If located upstream of the EC cells, the pump must be constructed of a material that is non-reactive to the gas mixtures being sampled.

**6.2.8 Sample Flow Rate Monitoring.** An adjustable rotameter or equivalent device used to adjust and maintain the sample flow rate through the analyzer as prescribed.

**6.2.9 Sample Gas Manifold (optional).** A manifold to divert a portion of the sample gas stream to the analyzer and the remainder to a by-pass discharge vent. The sample gas manifold may also include provisions for introducing calibration gases directly to the analyzer. The manifold must be constructed of a material that is non-reactive to the gas mixtures being sampled.

**6.2.10 EC cell.** A device containing one or more EC cells to determine the CO and O<sub>2</sub> concentrations in the sample gas stream. The EC cell(s) must meet the applicable performance specifications of Section 13 of this protocol.

**6.2.11 Data Recorder.** A strip chart recorder, computer or digital recorder to make a record of analyzer output data. The data recorder resolution (i.e., readability) must be no greater than 1 ppm for CO; 0.1 percent for O<sub>2</sub>; and one degree (either °C or °F) for temperature. Alternatively, you may use a digital or analog meter having the same resolution to observe and manually record the analyzer responses.

**6.2.12 Interference Gas Filter or Scrubber.** A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

## 7.0 Reagents and Standards. What calibration gases are needed?

**7.1 Calibration Gases.** CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O<sub>2</sub>. Use CO calibration gases with labeled concentration values certified by the manufacturer to be within ±5 percent of the label value. Dry ambient air (20.9 percent O<sub>2</sub>) is acceptable for calibration of the O<sub>2</sub> cell. If needed, any lower percentage O<sub>2</sub> calibration gas must be a mixture of O<sub>2</sub> in nitrogen.

**7.1.1 Up-Scale CO Calibration Gas Concentration.** Choose one or more up-scale gas concentrations such that the average of the stack gas measurements for each stack gas sampling run are between 25 and 150 percent of those concentrations. Alternatively, choose an up-scale gas that does not exceed twice the concentration of the applicable outlet standard. If a measured gas value exceeds 150 percent of the up-scale CO calibration gas value at any time during the stack gas sampling run, the run must be discarded and repeated.

**7.1.2 Up-Scale O<sub>2</sub> Calibration Gas Concentration.**

Select an O<sub>2</sub> gas concentration such that the difference between the gas concentration and the average stack gas measurement or reading for each sample run is less than 15 percent O<sub>2</sub>. When the average exhaust gas O<sub>2</sub> readings are above 6 percent, you may use dry ambient air (20.9 percent O<sub>2</sub>) for the up-scale O<sub>2</sub> calibration gas.

**7.1.3 Zero Gas.** Use an inert gas that contains less than 0.25 percent of the up-scale CO calibration gas concentration. You may use dry air that is free from ambient CO and other combustion gas products (e.g., CO<sub>2</sub>).

## 8.0 Sample Collection and Analysis

**8.1 Selection of Sampling Sites.**

**8.1.1 Control Device Inlet.** Select a sampling site sufficiently downstream of the engine so that the combustion gases should be well mixed. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

**8.1.2 Exhaust Gas Outlet.** Select a sampling site located at least two stack diameters downstream of any disturbance (e.g., turbocharger exhaust, crossover junction or recirculation take-off) and at least one-half stack diameter upstream of the gas discharge to the atmosphere. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

**8.2 Stack Gas Collection and Analysis.** Prior to the first stack gas sampling run, conduct that the pre-sampling calibration in accordance with Section 10.1. Use Figure 1 to record all data. Zero the analyzer with zero gas. Confirm and record that the scrubber media color is correct and not exhausted. Then position the probe at the sampling point and begin the sampling run at the same flow rate used during the up-scale calibration. Record the start time. Record all EC cell output responses and the flow rate during the "sample conditioning phase" once per minute until constant readings are obtained. Then begin the "measurement data phase" and record readings every 15 seconds for at least two minutes (or eight readings), or as otherwise required to achieve two continuous minutes of data that meet the specification given in Section 13.1. Finally, perform the "refresh phase" by introducing dry air, free from CO and other combustion gases, until several minute-to-minute readings of consistent value have been obtained. For each run use the "measurement data phase" readings to calculate the average stack gas CO and O<sub>2</sub> concentrations.

- 8.3 EC Cell Rate.** Maintain the EC cell sample flow rate so that it does not vary by more than  $\pm 10$  percent throughout the pre-sampling calibration, stack gas sampling and post-sampling calibration check. Alternatively, the EC cell sample flow rate can be maintained within a tolerance range that does not affect the gas concentration readings by more than  $\pm 3$  percent, as instructed by the EC cell manufacturer.

## 9.0 Quality Control (Reserved)

## 10.0 Calibration and Standardization

- 10.1 Pre-Sampling Calibration.** Conduct the following protocol once for each nominal range to be used on each EC cell before performing a stack gas sampling run on each field sampling day. Repeat the calibration if you replace an EC cell before completing all of the sampling runs. There is no prescribed order for calibration of the EC cells; however, each cell must complete the measurement data phase during calibration. Assemble the measurement system by following the manufacturer's recommended protocols including for preparing and preconditioning the EC cell. Assure the measurement system has no leaks and verify the gas scrubbing agent is not depleted. Use Figure 1 to record all data.

**10.1.1 Zero Calibration.** For both the O<sub>2</sub> and CO cells, introduce zero gas to the measurement system (e.g., at the calibration assembly) and record the concentration reading every minute until readings are constant for at least two consecutive minutes. Include the time and sample flow rate. Repeat the steps in this section at least once to verify the zero calibration for each component gas.

- 10.1.2 Zero Calibration Tolerance.** For each zero gas introduction, the zero level output must be less than or equal to  $\pm 3$  percent of the up-scale gas value or  $\pm 1$  ppm, whichever is less restrictive, for the CO channel and less than or equal to  $\pm 0.3$  percent O<sub>2</sub> for the O<sub>2</sub> channel.

- 10.1.3 Up-Scale Calibration.** Individually introduce each calibration gas to the measurement system (e.g., at the calibration assembly) and record the start time. Record all EC cell output responses and the flow rate during this "sample conditioning phase" once per minute until readings are constant for at least two minutes. Then begin the "measurement data phase" and record readings every 15 seconds for a total of two minutes, or as otherwise required. Finally, perform the "refresh phase" by introducing dry air, free from CO and other combustion gases, until readings are constant for at least two consecutive minutes. Then repeat the steps in this section at least once to verify the calibration for each component gas. Introduce all gases to flow through the entire sample handling system (i.e., at the exit end of the sampling probe or the calibration assembly).

- 10.1.4 Up-Scale Calibration Error.** The mean of the difference of the "measurement data phase" readings from the reported standard gas value must be less than or equal to  $\pm 5$  percent or  $\pm 1$  ppm for CO or  $\pm 0.5$  percent O<sub>2</sub>, whichever is less restrictive, respectively. The maximum allowable deviation from the mean measured value of any single "measurement data phase" reading must be less than or equal to  $\pm 2$  percent or  $\pm 1$  ppm for CO or  $\pm 0.5$  percent O<sub>2</sub>, whichever is less restrictive, respectively.

**10.2 Post-Sampling Calibration Check.** Conduct a stack gas post-sampling calibration check after the stack gas sampling run or set of runs and within 12 hours of the initial calibration. Conduct up-scale and zero calibration checks using the protocol in Section 10.1. Make no changes to the sampling system or EC cell calibration until all post-sampling calibration checks have been recorded. If either the zero or up-scale calibration error exceeds the respective specification in Sections 10.1.2 and 10.1.4 then all measurement data collected since the previous successful calibrations are

invalid and re-calibration and re-sampling are required. If the sampling system is disassembled or the EC cell calibration is adjusted, repeat the calibration check before conducting the next analyzer sampling run.

## 11.0 Analytical Procedure

The analytical procedure is fully discussed in Section 8.

## 12.0 Calculations and Data Analysis

Determine the CO and O<sub>2</sub> concentrations for each stack gas sampling run by calculating the mean gas concentrations of the data recorded during the “measurement data phase”.

## 13.0 Protocol Performance

Use the following protocols to verify consistent analyzer performance during each field sampling day.

- 13.1 Measurement Data Phase Performance Check.** Calculate the mean of the readings from the “measurement data phase”. The maximum allowable deviation from the mean for each of the individual readings is  $\pm 2$  percent, or  $\pm 1$  ppm, whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must conform to [Section 10.1.4](#). The EC cell flow rate must conform to the specification in [Section 8.3](#).

*Example:* A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean is greater than  $\pm 2$  percent or  $\pm 1$  ppm (the default criteria). For example, if the mean = 30 ppm, single readings of below 29 ppm and above 31 ppm are disallowed).

- 13.2 Interference Check.** Before the initial use of the EC cell and interference gas scrubber in the field, and semi-annually thereafter, challenge the interference gas scrubber with NO and NO<sub>2</sub> gas standards that are generally recognized as representative of diesel-fueled engine NO and NO<sub>2</sub> emission values. Record the responses displayed by the CO EC cell and other pertinent data on Figure 1 or a similar form.

**13.2.1 Interference Response.** The combined NO and NO<sub>2</sub> interference response should be less than or equal to  $\pm 5$  percent of the up-scale CO calibration gas concentration.

- 13.3 Repeatability Check.** Conduct the following check once for each nominal range that is to be used on the CO EC cell within 5 days prior to each field sampling program. If a field sampling program lasts longer than 5 days, repeat this check every 5 days. Immediately repeat the check if the EC cell is replaced or if the EC cell is exposed to gas concentrations greater than 150 percent of the highest up-scale gas concentration.

**13.3.1 Repeatability Check Procedure.** Perform a complete EC cell sampling run (all three phases) by introducing the CO calibration gas to the measurement system and record the response. Follow [Section 10.1.3](#). Use Figure 1 to record all data. Repeat the run three times for a total of four complete runs. During the four repeatability check runs, do not adjust the system except where necessary to achieve the correct calibration gas flow rate at the analyzer.

**13.3.2 Repeatability Check Calculations.** Determine the highest and lowest average “measurement data phase” CO concentrations from the four repeatability check runs and record the results on Figure 1 or a similar form. The absolute value of the difference between the maximum and minimum average values recorded must not vary more than ±3 percent or ±1 ppm of the up-scale gas value, whichever is less restrictive.

**14.0 Pollution Prevention (Reserved)**

**15.0 Waste Management (Reserved)**

**16.0 Alternative Procedures (Reserved)**

**17.0 References**

- (1) *“Development of an Electrochemical Cell Emission Analyzer Test Protocol”*, Topical Report, Phil Juneau, Emission Monitoring, Inc., July 1997.
- (2) *“Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers, and Process Heaters Using Portable Analyzers”*, EMC Conditional Test Protocol 30 (CTM-30), Gas Research Institute Protocol GRI-96/0008, Revision 7, October 13, 1997.
- (3) *“ICAC Test Protocol for Periodic Monitoring”*, EMC Conditional Test Protocol 34 (CTM-034), The Institute of Clean Air Companies, September 8, 1999.
- (4) *“Code of Federal Regulations”*, Protection of Environment, 40 CFR, Part 60, Appendix A, Methods 1-4; 10.

Table 1: Appendix A - Sampling Run Data.

Facility_____ Engine I.D._____ Date_____				
Run Type:	(-)	(-)	(-)	(-)
(X)	Pre-Sample Calibration	Stack Gas Sample	Post-Sample Cal. Check	Repeatability Check

Run #	1	1	2	2	3	3	4	4	4	Time	Scrub. OK	Flow- Rate
Gas	O <sub>2</sub>	CO	O <sub>2</sub>	CO	O <sub>2</sub>	CO	O <sub>2</sub>	CO	CO			
Sample Cond.												
Phase												
"												
"												
"												
"												
Measurement												
Data Phase												
"												
"												
"												
"												
"												
"												
"												
"												
Mean												
Refresh												
Phase												
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[78 FR 6721, Jan. 30, 2013]

## **Appendix E**

40 C.F.R. Part 68 - *Chemical Accident Prevention Provisions*





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This content is from the eCFR and is authoritative but unofficial.

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**Chapter I - Environmental Protection Agency**  
**Subchapter C - Air Programs**

**Part 68** Chemical Accident Prevention Provisions

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- § 68.175 Prevention program/Program 3.
- § 68.180 Emergency response program and exercises.
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- § 68.190 Updates.
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**Subpart H** Other Requirements

- § 68.200 Recordkeeping.
- § 68.210 Availability of information to the public.
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**Appendix A to Part 68**

Table of Toxic Endpoints

## PART 68 - CHEMICAL ACCIDENT PREVENTION PROVISIONS

**Authority:** 42 U.S.C. 7412(r), 7601(a)(1), 7661-7661f.

**Source:** 59 FR 4493, Jan. 31, 1994, unless otherwise noted.

### Subpart A - General

#### § 68.1 Scope.

This part sets forth the list of regulated substances and thresholds, the petition process for adding or deleting substances to the list of regulated substances, the requirements for owners or operators of stationary sources concerning the prevention of accidental releases, and the State accidental release prevention programs approved under section 112(r). The list of substances, threshold quantities, and accident prevention regulations promulgated under this part do not limit in any way the general duty provisions under section 112(r)(1).

#### § 68.3 Definitions.

For the purposes of this part:

**Accidental release** means an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source.

**Act** means the Clean Air Act as amended (42 U.S.C. 7401 *et seq.*)

**Administrative controls** mean written procedural mechanisms used for hazard control.

**Administrator** means the administrator of the U.S. Environmental Protection Agency.

**AICHE/CCPS** means the American Institute of Chemical Engineers/Center for Chemical Process Safety.

**API** means the American Petroleum Institute.

**Article** means a manufactured item, as defined under 29 CFR 1910.1200(b), that is formed to a specific shape or design during manufacture, that has end use functions dependent in whole or in part upon the shape or design during end use, and that does not release or otherwise result in exposure to a regulated substance under normal conditions of processing and use.

**ASME** means the American Society of Mechanical Engineers.

**CAS** means the Chemical Abstracts Service.

**Catastrophic release** means a major uncontrolled emission, fire, or explosion, involving one or more regulated substances that presents imminent and substantial endangerment to public health and the environment.

**CBI** means confidential business information.

**Classified information** means "classified information" as defined in the Classified Information Procedures Act, 18 U.S.C. App. 3, section 1(a) as "any information or material that has been determined by the United States Government pursuant to an executive order, statute, or regulation, to require protection against unauthorized disclosure for reasons of national security."

**Condensate** means hydrocarbon liquid separated from natural gas that condenses due to changes in temperature, pressure, or both, and remains liquid at standard conditions.

**Covered process** means a process that has a regulated substance present in more than a threshold quantity as determined under § 68.115.

**Crude oil** means any naturally occurring, unrefined petroleum liquid.

**Designated agency** means the state, local, or Federal agency designated by the state under the provisions of § 68.215(d).

**DOT** means the United States Department of Transportation.

**Environmental receptor** means natural areas such as national or state parks, forests, or monuments; officially designated wildlife sanctuaries, preserves, refuges, or areas; and Federal wilderness areas, that could be exposed at any time to toxic concentrations, radiant heat, or overpressure greater than or equal to the endpoints provided in § 68.22(a), as a result of an accidental release and that can be identified on local U. S. Geological Survey maps.

**Field gas** means gas extracted from a production well before the gas enters a natural gas processing plant.

**Hot work** means work involving electric or gas welding, cutting, brazing, or similar flame or spark-producing operations.

**Implementing agency** means the state or local agency that obtains delegation for an accidental release prevention program under subpart E, 40 CFR part 63. The implementing agency may, but is not required to, be the state or local air permitting agency. If no state or local agency is granted delegation, EPA will be the implementing agency for that state.

**Injury** means any effect on a human that results either from direct exposure to toxic concentrations; radiant heat; or overpressures from accidental releases or from the direct consequences of a vapor cloud explosion (such as flying glass, debris, and other projectiles) from an accidental release and that requires medical treatment or hospitalization.

**LEPC** means local emergency planning committee as established under 42 U.S.C. 11001(c).

**Major change** means introduction of a new process, process equipment, or regulated substance, an alteration of process chemistry that results in any change to safe operating limits, or other alteration that introduces a new hazard.

**Mechanical integrity** means the process of ensuring that process equipment is fabricated from the proper materials of construction and is properly installed, maintained, and replaced to prevent failures and accidental releases.

**Medical treatment** means treatment, other than first aid, administered by a physician or registered professional personnel under standing orders from a physician.

**Mitigation or mitigation system** means specific activities, technologies, or equipment designed or deployed to capture or control substances upon loss of containment to minimize exposure of the public or the environment. Passive mitigation means equipment, devices, or technologies that function without human, mechanical, or other energy input. Active mitigation means equipment, devices, or technologies that need human, mechanical, or other energy input to function.

**NAICS** means North American Industry Classification System.

**NFPA** means the National Fire Protection Association.

**Natural gas processing plant (gas plant)** means any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both, classified as North American Industrial Classification System (NAICS) code 211112 (previously Standard Industrial Classification (SIC) code 1321).

**Offsite** means areas beyond the property boundary of the stationary source, and areas within the property boundary to which the public has routine and unrestricted access during or outside business hours.

**OSHA** means the U.S. Occupational Safety and Health Administration. Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

**Petroleum refining process unit** means a process unit used in an establishment primarily engaged in petroleum refining as defined in NAICS code 32411 for petroleum refining (formerly SIC code 2911) and used for the following: Producing transportation fuels (such as gasoline, diesel fuels, and jet fuels), heating fuels (such as kerosene, fuel gas distillate, and fuel oils), or lubricants; Separating petroleum; or Separating, cracking, reacting, or reforming intermediate petroleum streams. Examples of such units include, but are not limited to, petroleum based solvent units, alkylation units, catalytic hydrotreating, catalytic hydrorefining, catalytic hydrocracking, catalytic reforming, catalytic cracking, crude distillation, lube oil processing, hydrogen production, isomerization, polymerization, thermal processes, and blending, sweetening, and treating processes. Petroleum refining process units include sulfur plants.

**Population** means the public.

**Process** means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances, or combination of these activities. For the purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

**Produced water** means water extracted from the earth from an oil or natural gas production well, or that is separated from oil or natural gas after extraction.

**Public** means any person except employees or contractors at the stationary source.

**Public receptor** means offsite residences, institutions (e.g., schools, hospitals), industrial, commercial, and office buildings, parks, or recreational areas inhabited or occupied by the public at any time without restriction by the stationary source where members of the public could be exposed to toxic concentrations, radiant heat, or overpressure, as a result of an accidental release.

**Regulated substance** is any substance listed pursuant to section 112(r)(3) of the Clean Air Act as amended, in § 68.130.

**Replacement in kind** means a replacement that satisfies the design specifications.

**Retail facility** means a stationary source at which more than one-half of the income is obtained from direct sales to end users or at which more than one-half of the fuel sold, by volume, is sold through a cylinder exchange program.

**RMP** means the risk management plan required under subpart G of this part.

**Stationary source** means any buildings, structures, equipment, installations, or substance emitting stationary activities which belong to the same industrial group, which are located on one or more contiguous properties, which are under the control of the same person (or persons under common control), and from which an accidental release may occur. The term stationary source does not apply to transportation, including storage incident to transportation, of any regulated substance or any other extremely hazardous

substance under the provisions of this part. A stationary source includes transportation containers used for storage not incident to transportation and transportation containers connected to equipment at a stationary source for loading or unloading. Transportation includes, but is not limited to, transportation subject to oversight or regulation under 49 CFR parts 192, 193, or 195, or a state natural gas or hazardous liquid program for which the state has in effect a certification to DOT under 49 U.S.C. section 60105. A stationary source does not include naturally occurring hydrocarbon reservoirs. Properties shall not be considered contiguous solely because of a railroad or pipeline right-of-way.

**Threshold quantity** means the quantity specified for regulated substances pursuant to section 112(r)(5) of the Clean Air Act as amended, listed in § 68.130 and determined to be present at a stationary source as specified in § 68.115 of this part.

**Typical meteorological conditions** means the temperature, wind speed, cloud cover, and atmospheric stability class, prevailing at the site based on data gathered at or near the site or from a local meteorological station.

**Vessel** means any reactor, tank, drum, barrel, cylinder, vat, kettle, boiler, pipe, hose, or other container.

**Worst-case release** means the release of the largest quantity of a regulated substance from a vessel or process line failure that results in the greatest distance to an endpoint defined in § 68.22(a).

[59 FR 4493, Jan. 31, 1994, as amended at 61 FR 31717, June 20, 1996; 63 FR 644, Jan. 6, 1998; 64 FR 979, Jan. 6, 1999; 65 FR 13250, Mar. 13, 2000; 82 FR 4696, Jan. 13, 2017; 84 FR 69913, Dec. 19, 2019]

## § 68.10 Applicability.

- (a) Except as provided in paragraphs (b) through (f) of this section, an owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under § 68.115, shall comply with the requirements of this part no later than the latest of the following dates:
  - (1) June 21, 1999;
  - (2) Three years after the date on which a regulated substance is first listed under § 68.130;
  - (3) The date on which a regulated substance is first present above a threshold quantity in a process; or
  - (4) For any revisions to this part, the effective date of the final rule that revises this part.
- (b) By March 14, 2018, the owner or operator of a stationary source shall comply with the emergency response coordination activities in § 68.93, as applicable.
- (c) Within three years of when the owner or operator determines that the stationary source is subject to the emergency response program requirements of § 68.95, pursuant to § 68.90(a), the owner or operator must develop and implement an emergency response program in accordance with § 68.95.
- (d) By December 19, 2023, the owner or operator shall have developed plans for conducting emergency response exercises in accordance with provisions of § 68.96, as applicable.
- (e) The owner or operator of a stationary source shall comply with the public meeting requirement in § 68.210(b) within 90 days of any RMP reportable accident at the stationary source with known offsite impacts specified in § 68.42(a), that occurs after March 15, 2021.

- (f) After December 19, 2024, for any risk management plan initially submitted as required by § 68.150(b)(2) or (3) or submitted as an update required by § 68.190, the owner or operator shall comply with the following risk management plan provisions of subpart G of this part:
- (1) Reporting a public meeting after an RMP reportable accident under § 68.160(b)(21) as promulgated on December 19, 2019;
  - (2) Reporting emergency response program information under § 68.180(a)(1) as promulgated on December 19, 2019;
  - (3) Reporting emergency response program information under § 68.180(a)(2) and (3) as promulgated on January 13, 2017, as applicable; and,
  - (4) Reporting emergency response program and exercises information under § 68.180(b) as promulgated on January 13, 2017, as applicable. The owner or operator shall submit dates of the most recent notification, field and tabletop exercises in the risk management plan, for exercises completed as required under § 68.96 at the time the risk management plan is either submitted under § 68.150(b)(2) or (3), or is updated under § 68.190.
- (g) **Program 1 eligibility requirements.** A covered process is eligible for Program 1 requirements as provided in § 68.12(b) if it meets all of the following requirements:
- (1) For the five years prior to the submission of an RMP, the process has not had an accidental release of a regulated substance where exposure to the substance, its reaction products, overpressure generated by an explosion involving the substance, or radiant heat generated by a fire involving the substance led to any of the following offsite:
    - (i) Death;
    - (ii) Injury; or
    - (iii) Response or restoration activities for an exposure of an environmental receptor;
  - (2) The distance to a toxic or flammable endpoint for a worst-case release assessment conducted under subpart B and § 68.25 is less than the distance to any public receptor, as defined in § 68.3; and
  - (3) Emergency response procedures have been coordinated between the stationary source and local emergency planning and response organizations.
- (h) **Program 2 eligibility requirements.** A covered process is subject to Program 2 requirements if it does not meet the eligibility requirements of either paragraph (g) or paragraph (i) of this section.
- (i) **Program 3 eligibility requirements.** A covered process is subject to Program 3 if the process does not meet the requirements of paragraph (g) of this section, and if either of the following conditions is met:
- (1) The process is in NAICS code 32211, 32411, 32511, 325181, 325188, 325192, 325199, 325211, 325311, or 32532; or
  - (2) The process is subject to the OSHA process safety management standard, 29 CFR 1910.119.
- (j) If at any time a covered process no longer meets the eligibility criteria of its Program level, the owner or operator shall comply with the requirements of the new Program level that applies to the process and update the RMP as provided in § 68.190.



- (k) The provisions of this part shall not apply to an Outer Continental Shelf (“OCS”) source, as defined in 40 CFR 55.2.

[61 FR 31717, June 20, 1996, as amended at 63 FR 645, Jan. 6, 1998; 64 FR 979, Jan. 6, 1999; 82 FR 4696, Jan. 13, 2017; 84 FR 69913, Dec. 19, 2019]

## § 68.12 General requirements.

- (a) General requirements. The owner or operator of a stationary source subject to this part shall submit a single RMP, as provided in §§ 68.150 to 68.185. The RMP shall include a registration that reflects all covered processes.
- (b) Program 1 requirements. In addition to meeting the requirements of paragraph (a) of this section, the owner or operator of a stationary source with a process eligible for Program 1, as provided in § 68.10(g), shall:
- (1) Analyze the worst-case release scenario for the process(es), as provided in § 68.25; document that the nearest public receptor is beyond the distance to a toxic or flammable endpoint defined in § 68.22(a); and submit in the RMP the worst-case release scenario as provided in § 68.165;
  - (2) Complete the five-year accident history for the process as provided in § 68.42 of this part and submit it in the RMP as provided in § 68.168;
  - (3) Ensure that response actions have been coordinated with local emergency planning and response agencies; and
  - (4) Certify in the RMP the following: “Based on the criteria in 40 CFR 68.10, the distance to the specified endpoint for the worst-case accidental release scenario for the following process(es) is less than the distance to the nearest public receptor: [list process(es)]. Within the past five years, the process(es) has (have) had no accidental release that caused offsite impacts provided in the risk management program rule (40 CFR 68.10(g)(1)). No additional measures are necessary to prevent offsite impacts from accidental releases. In the event of fire, explosion, or a release of a regulated substance from the process(es), entry within the distance to the specified endpoints may pose a danger to public emergency responders. Therefore, public emergency responders should not enter this area except as arranged with the emergency contact indicated in the RMP. The undersigned certifies that, to the best of my knowledge, information, and belief, formed after reasonable inquiry, the information submitted is true, accurate, and complete. [Signature, title, date signed].”
- (c) Program 2 requirements. In addition to meeting the requirements of paragraph (a) of this section, the owner or operator of a stationary source with a process subject to Program 2, as provided in § 68.10(h), shall:
- (1) Develop and implement a management system as provided in § 68.15;
  - (2) Conduct a hazard assessment as provided in §§ 68.20 through 68.42;
  - (3) Implement the Program 2 prevention steps provided in §§ 68.48 through 68.60 or implement the Program 3 prevention steps provided in §§ 68.65 through 68.87;
  - (4) Coordinate response actions with local emergency planning and response agencies as provided in § 68.93;
  - (5) Develop and implement an emergency response program, and conduct exercises, as provided in §§ 68.90 to 68.96; and

- (6) Submit as part of the RMP the data on prevention program elements for Program 2 processes as provided in § 68.170.
- (d) Program 3 requirements. In addition to meeting the requirements of paragraph (a) of this section, the owner or operator of a stationary source with a process subject to Program 3, as provided in § 68.10(i) shall:
  - (1) Develop and implement a management system as provided in § 68.15;
  - (2) Conduct a hazard assessment as provided in §§ 68.20 through 68.42;
  - (3) Implement the prevention requirements of §§ 68.65 through 68.87;
  - (4) Coordinate response actions with local emergency planning and response agencies as provided in § 68.93;
  - (5) Develop and implement an emergency response program, and conduct exercises, as provided in §§ 68.90 to 68.96; and
  - (6) Submit as part of the RMP the data on prevention program elements for Program 3 processes as provided in § 68.175.

[61 FR 31718, June 20, 1996, as amended at 82 FR 4696, Jan. 13, 2017; 84 FR 69914, Dec. 19, 2019]

### § 68.15 Management.

- (a) The owner or operator of a stationary source with processes subject to Program 2 or Program 3 shall develop a management system to oversee the implementation of the risk management program elements.
- (b) The owner or operator shall assign a qualified person or position that has the overall responsibility for the development, implementation, and integration of the risk management program elements.
- (c) When responsibility for implementing individual requirements of this part is assigned to persons other than the person identified under paragraph (b) of this section, the names or positions of these people shall be documented and the lines of authority defined through an organization chart or similar document.

[61 FR 31718, June 20, 1996]

### Subpart B - Hazard Assessment

**Source:** 61 FR 31718, June 20, 1996, unless otherwise noted.

### § 68.20 Applicability.

The owner or operator of a stationary source subject to this part shall prepare a worst-case release scenario analysis as provided in § 68.25 of this part and complete the five-year accident history as provided in § 68.42. The owner or operator of a Program 2 and 3 process must comply with all sections in this subpart for these processes.

### § 68.22 Offsite consequence analysis parameters.

- (a) Endpoints. For analyses of offsite consequences, the following endpoints shall be used:

- (1) Toxics. The toxic endpoints provided in appendix A of this part.
- (2) Flammables. The endpoints for flammables vary according to the scenarios studied:
  - (i) Explosion. An overpressure of 1 psi.
  - (ii) Radiant heat/exposure time. A radiant heat of 5 kw/m<sup>2</sup> for 40 seconds.
  - (iii) Lower flammability limit. A lower flammability limit as provided in NFPA documents or other generally recognized sources.
- (b) Wind speed/atmospheric stability class. For the worst-case release analysis, the owner or operator shall use a wind speed of 1.5 meters per second and F atmospheric stability class. If the owner or operator can demonstrate that local meteorological data applicable to the stationary source show a higher minimum wind speed or less stable atmosphere at all times during the previous three years, these minimums may be used. For analysis of alternative scenarios, the owner or operator may use the typical meteorological conditions for the stationary source.
- (c) Ambient temperature/humidity. For worst-case release analysis of a regulated toxic substance, the owner or operator shall use the highest daily maximum temperature in the previous three years and average humidity for the site, based on temperature/humidity data gathered at the stationary source or at a local meteorological station; an owner or operator using the RMP Offsite Consequence Analysis Guidance may use 25 °C and 50 percent humidity as values for these variables. For analysis of alternative scenarios, the owner or operator may use typical temperature/humidity data gathered at the stationary source or at a local meteorological station.
- (d) Height of release. The worst-case release of a regulated toxic substance shall be analyzed assuming a ground level (0 feet) release. For an alternative scenario analysis of a regulated toxic substance, release height may be determined by the release scenario.
- (e) Surface roughness. The owner or operator shall use either urban or rural topography, as appropriate. Urban means that there are many obstacles in the immediate area; obstacles include buildings or trees. Rural means there are no buildings in the immediate area and the terrain is generally flat and unobstructed.
- (f) Dense or neutrally buoyant gases. The owner or operator shall ensure that tables or models used for dispersion analysis of regulated toxic substances appropriately account for gas density.
- (g) Temperature of released substance. For worst case, liquids other than gases liquified by refrigeration only shall be considered to be released at the highest daily maximum temperature, based on data for the previous three years appropriate for the stationary source, or at process temperature, whichever is higher. For alternative scenarios, substances may be considered to be released at a process or ambient temperature that is appropriate for the scenario.

### § 68.25 Worst-case release scenario analysis.

- (a) The owner or operator shall analyze and report in the RMP:
  - (1) For Program 1 processes, one worst-case release scenario for each Program 1 process;
  - (2) For Program 2 and 3 processes:

- (i) One worst-case release scenario that is estimated to create the greatest distance in any direction to an endpoint provided in appendix A of this part resulting from an accidental release of regulated toxic substances from covered processes under worst-case conditions defined in § 68.22;
- (ii) One worst-case release scenario that is estimated to create the greatest distance in any direction to an endpoint defined in § 68.22(a) resulting from an accidental release of regulated flammable substances from covered processes under worst-case conditions defined in § 68.22; and
- (iii) Additional worst-case release scenarios for a hazard class if a worst-case release from another covered process at the stationary source potentially affects public receptors different from those potentially affected by the worst-case release scenario developed under paragraphs (a)(2)(i) or (a)(2)(ii) of this section.

(b) **Determination of worst-case release quantity.** The worst-case release quantity shall be the greater of the following:

- (1) For substances in a vessel, the greatest amount held in a single vessel, taking into account administrative controls that limit the maximum quantity; or
- (2) For substances in pipes, the greatest amount in a pipe, taking into account administrative controls that limit the maximum quantity.

(c) **Worst-case release scenario - toxic gases.**

- (1) For regulated toxic substances that are normally gases at ambient temperature and handled as a gas or as a liquid under pressure, the owner or operator shall assume that the quantity in the vessel or pipe, as determined under paragraph (b) of this section, is released as a gas over 10 minutes. The release rate shall be assumed to be the total quantity divided by 10 unless passive mitigation systems are in place.
- (2) For gases handled as refrigerated liquids at ambient pressure:
  - (i) If the released substance is not contained by passive mitigation systems or if the contained pool would have a depth of 1 cm or less, the owner or operator shall assume that the substance is released as a gas in 10 minutes;
  - (ii) If the released substance is contained by passive mitigation systems in a pool with a depth greater than 1 cm, the owner or operator may assume that the quantity in the vessel or pipe, as determined under paragraph (b) of this section, is spilled instantaneously to form a liquid pool. The volatilization rate (release rate) shall be calculated at the boiling point of the substance and at the conditions specified in paragraph (d) of this section.

(d) **Worst-case release scenario - toxic liquids.**

- (1) For regulated toxic substances that are normally liquids at ambient temperature, the owner or operator shall assume that the quantity in the vessel or pipe, as determined under paragraph (b) of this section, is spilled instantaneously to form a liquid pool.
  - (i) The surface area of the pool shall be determined by assuming that the liquid spreads to 1 centimeter deep unless passive mitigation systems are in place that serve to contain the spill and limit the surface area. Where passive mitigation is in place, the surface area of the contained liquid shall be used to calculate the volatilization rate.

- (ii) If the release would occur onto a surface that is not paved or smooth, the owner or operator may take into account the actual surface characteristics.
  - (2) The volatilization rate shall account for the highest daily maximum temperature occurring in the past three years, the temperature of the substance in the vessel, and the concentration of the substance if the liquid spilled is a mixture or solution.
  - (3) The rate of release to air shall be determined from the volatilization rate of the liquid pool. The owner or operator may use the methodology in the RMP Offsite Consequence Analysis Guidance or any other publicly available techniques that account for the modeling conditions and are recognized by industry as applicable as part of current practices. Proprietary models that account for the modeling conditions may be used provided the owner or operator allows the implementing agency access to the model and describes model features and differences from publicly available models to local emergency planners upon request.
- (e) **Worst-case release scenario - flammable gases.** The owner or operator shall assume that the quantity of the substance, as determined under paragraph (b) of this section and the provisions below, vaporizes resulting in a vapor cloud explosion. A yield factor of 10 percent of the available energy released in the explosion shall be used to determine the distance to the explosion endpoint if the model used is based on TNT equivalent methods.
- (1) For regulated flammable substances that are normally gases at ambient temperature and handled as a gas or as a liquid under pressure, the owner or operator shall assume that the quantity in the vessel or pipe, as determined under paragraph (b) of this section, is released as a gas over 10 minutes. The total quantity shall be assumed to be involved in the vapor cloud explosion.
  - (2) For flammable gases handled as refrigerated liquids at ambient pressure:
    - (i) If the released substance is not contained by passive mitigation systems or if the contained pool would have a depth of one centimeter or less, the owner or operator shall assume that the total quantity of the substance is released as a gas in 10 minutes, and the total quantity will be involved in the vapor cloud explosion.
    - (ii) If the released substance is contained by passive mitigation systems in a pool with a depth greater than 1 centimeter, the owner or operator may assume that the quantity in the vessel or pipe, as determined under paragraph (b) of this section, is spilled instantaneously to form a liquid pool. The volatilization rate (release rate) shall be calculated at the boiling point of the substance and at the conditions specified in paragraph (d) of this section. The owner or operator shall assume that the quantity which becomes vapor in the first 10 minutes is involved in the vapor cloud explosion.
- (f) **Worst-case release scenario - flammable liquids.** The owner or operator shall assume that the quantity of the substance, as determined under paragraph (b) of this section and the provisions below, vaporizes resulting in a vapor cloud explosion. A yield factor of 10 percent of the available energy released in the explosion shall be used to determine the distance to the explosion endpoint if the model used is based on TNT equivalent methods.
- (1) For regulated flammable substances that are normally liquids at ambient temperature, the owner or operator shall assume that the entire quantity in the vessel or pipe, as determined under paragraph (b) of this section, is spilled instantaneously to form a liquid pool. For liquids at temperatures below their atmospheric boiling point, the volatilization rate shall be calculated at the conditions specified in paragraph (d) of this section.

- (2) The owner or operator shall assume that the quantity which becomes vapor in the first 10 minutes is involved in the vapor cloud explosion.
- (g) **Parameters to be applied.** The owner or operator shall use the parameters defined in § 68.22 to determine distance to the endpoints. The owner or operator may use the methodology provided in the RMP Offsite Consequence Analysis Guidance or any commercially or publicly available air dispersion modeling techniques, provided the techniques account for the modeling conditions and are recognized by industry as applicable as part of current practices. Proprietary models that account for the modeling conditions may be used provided the owner or operator allows the implementing agency access to the model and describes model features and differences from publicly available models to local emergency planners upon request.
- (h) **Consideration of passive mitigation.** Passive mitigation systems may be considered for the analysis of worst case provided that the mitigation system is capable of withstanding the release event triggering the scenario and would still function as intended.
- (i) **Factors in selecting a worst-case scenario.** Notwithstanding the provisions of paragraph (b) of this section, the owner or operator shall select as the worst case for flammable regulated substances or the worst case for regulated toxic substances, a scenario based on the following factors if such a scenario would result in a greater distance to an endpoint defined in § 68.22(a) beyond the stationary source boundary than the scenario provided under paragraph (b) of this section:
  - (1) Smaller quantities handled at higher process temperature or pressure; and
  - (2) Proximity to the boundary of the stationary source.

[61 FR 31718, June 20, 1996, as amended at 64 FR 28700, May 26, 1999]

## § 68.28 Alternative release scenario analysis.

- (a) The number of scenarios. The owner or operator shall identify and analyze at least one alternative release scenario for each regulated toxic substance held in a covered process(es) and at least one alternative release scenario to represent all flammable substances held in covered processes.
- (b) **Scenarios to consider.**
  - (1) For each scenario required under paragraph (a) of this section, the owner or operator shall select a scenario:
    - (i) That is more likely to occur than the worst-case release scenario under § 68.25; and
    - (ii) That will reach an endpoint offsite, unless no such scenario exists.
  - (2) Release scenarios considered should include, but are not limited to, the following, where applicable:
    - (i) Transfer hose releases due to splits or sudden hose uncoupling;
    - (ii) Process piping releases from failures at flanges, joints, welds, valves and valve seals, and drains or bleeds;
    - (iii) Process vessel or pump releases due to cracks, seal failure, or drain, bleed, or plug failure;
    - (iv) Vessel overfilling and spill, or overpressurization and venting through relief valves or rupture disks; and
    - (v) Shipping container mishandling and breakage or puncturing leading to a spill.

- (c) Parameters to be applied. The owner or operator shall use the appropriate parameters defined in § 68.22 to determine distance to the endpoints. The owner or operator may use either the methodology provided in the RMP Offsite Consequence Analysis Guidance or any commercially or publicly available air dispersion modeling techniques, provided the techniques account for the specified modeling conditions and are recognized by industry as applicable as part of current practices. Proprietary models that account for the modeling conditions may be used provided the owner or operator allows the implementing agency access to the model and describes model features and differences from publicly available models to local emergency planners upon request.
- (d) Consideration of mitigation. Active and passive mitigation systems may be considered provided they are capable of withstanding the event that triggered the release and would still be functional.
- (e) Factors in selecting scenarios. The owner or operator shall consider the following in selecting alternative release scenarios:
  - (1) The five-year accident history provided in § 68.42; and
  - (2) Failure scenarios identified under § 68.50 or § 68.67.

### § 68.30 Defining offsite impacts - population.

- (a) The owner or operator shall estimate in the RMP the population within a circle with its center at the point of the release and a radius determined by the distance to the endpoint defined in § 68.22(a).
- (b) **Population to be defined.** Population shall include residential population. The presence of institutions (schools, hospitals, prisons), parks and recreational areas, and major commercial, office, and industrial buildings shall be noted in the RMP.
- (c) **Data sources acceptable.** The owner or operator may use the most recent Census data, or other updated information, to estimate the population potentially affected.
- (d) **Level of accuracy.** Population shall be estimated to two significant digits.

### § 68.33 Defining offsite impacts - environment.

- (a) The owner or operator shall list in the RMP environmental receptors within a circle with its center at the point of the release and a radius determined by the distance to the endpoint defined in § 68.22(a) of this part.
- (b) **Data sources acceptable.** The owner or operator may rely on information provided on local U.S. Geological Survey maps or on any data source containing U.S.G.S. data to identify environmental receptors.

### § 68.36 Review and update.

- (a) The owner or operator shall review and update the offsite consequence analyses at least once every five years.
- (b) If changes in processes, quantities stored or handled, or any other aspect of the stationary source might reasonably be expected to increase or decrease the distance to the endpoint by a factor of two or more, the owner or operator shall complete a revised analysis within six months of the change and submit a revised risk management plan as provided in § 68.190.

### § 68.39 Documentation.

The owner or operator shall maintain the following records on the offsite consequence analyses:

- (a) For worst-case scenarios, a description of the vessel or pipeline and substance selected as worst case, assumptions and parameters used, and the rationale for selection; assumptions shall include use of any administrative controls and any passive mitigation that were assumed to limit the quantity that could be released. Documentation shall include the anticipated effect of the controls and mitigation on the release quantity and rate.
- (b) For alternative release scenarios, a description of the scenarios identified, assumptions and parameters used, and the rationale for the selection of specific scenarios; assumptions shall include use of any administrative controls and any mitigation that were assumed to limit the quantity that could be released. Documentation shall include the effect of the controls and mitigation on the release quantity and rate.
- (c) Documentation of estimated quantity released, release rate, and duration of release.
- (d) Methodology used to determine distance to endpoints.
- (e) Data used to estimate population and environmental receptors potentially affected.

### § 68.42 Five-year accident history.

- (a) The owner or operator shall include in the five-year accident history all accidental releases from covered processes that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage.
- (b) **Data required.** For each accidental release included, the owner or operator shall report the following information:
  - (1) Date, time, and approximate duration of the release;
  - (2) Chemical(s) released;
  - (3) Estimated quantity released in pounds and, for mixtures containing regulated toxic substances, percentage concentration by weight of the released regulated toxic substance in the liquid mixture;
  - (4) Five- or six-digit NAICS code that most closely corresponds to the process;
  - (5) The type of release event and its source;
  - (6) Weather conditions, if known;
  - (7) On-site impacts;
  - (8) Known offsite impacts;
  - (9) Initiating event and contributing factors if known;
  - (10) Whether offsite responders were notified if known; and
  - (11) Operational or process changes that resulted from investigation of the release and that have been made by the time this information is submitted in accordance with § 68.168.
- (c) **Level of accuracy.** Numerical estimates may be provided to two significant digits.

[61 FR 31718, June 20, 1996, as amended at 64 FR 979, Jan. 6, 1999; 69 FR 18831, Apr. 9, 2004]

### Subpart C - Program 2 Prevention Program

**Source:** 61 FR 31721, June 20, 1996, unless otherwise noted.



## § 68.48 Safety information.

- (a) The owner or operator shall compile and maintain the following up-to-date safety information related to the regulated substances, processes, and equipment:
  - (1) Safety Data Sheets (SDS) that meet the requirements of 29 CFR 1910.1200(g);
  - (2) Maximum intended inventory of equipment in which the regulated substances are stored or processed;
  - (3) Safe upper and lower temperatures, pressures, flows, and compositions;
  - (4) Equipment specifications; and
  - (5) Codes and standards used to design, build, and operate the process.
- (b) The owner or operator shall ensure that the process is designed in compliance with recognized and generally accepted good engineering practices. Compliance with Federal or state regulations that address industry-specific safe design or with industry-specific design codes and standards may be used to demonstrate compliance with this paragraph.
- (c) The owner or operator shall update the safety information if a major change occurs that makes the information inaccurate.

[61 FR 31721, June 20, 1996, as amended at 82 FR 4697, Jan. 13, 2017]

## § 68.50 Hazard review.

- (a) The owner or operator shall conduct a review of the hazards associated with the regulated substances, process, and procedures. The review shall identify the following:
  - (1) The hazards associated with the process and regulated substances;
  - (2) Opportunities for equipment malfunctions or human errors that could cause an accidental release;
  - (3) The safeguards used or needed to control the hazards or prevent equipment malfunction or human error; and
  - (4) Any steps used or needed to detect or monitor releases.
- (b) The owner or operator may use checklists developed by persons or organizations knowledgeable about the process and equipment as a guide to conducting the review. For processes designed to meet industry standards or Federal or state design rules, the hazard review shall, by inspecting all equipment, determine whether the process is designed, fabricated, and operated in accordance with the applicable standards or rules.
- (c) The owner or operator shall document the results of the review and ensure that problems identified are resolved in a timely manner.
- (d) The review shall be updated at least once every five years. The owner or operator shall also conduct reviews whenever a major change in the process occurs; all issues identified in the review shall be resolved before startup of the changed process.

[61 FR 31721, June 20, 1996, as amended at 82 FR 4697, Jan. 13, 2017; 84 FR 69914, Dec. 19, 2019]

### § 68.52 Operating procedures.

- (a) The owner or operator shall prepare written operating procedures that provide clear instructions or steps for safely conducting activities associated with each covered process consistent with the safety information for that process. Operating procedures or instructions provided by equipment manufacturers or developed by persons or organizations knowledgeable about the process and equipment may be used as a basis for a stationary source's operating procedures.
- (b) The procedures shall address the following:
  - (1) Initial startup;
  - (2) Normal operations;
  - (3) Temporary operations;
  - (4) Emergency shutdown and operations;
  - (5) Normal shutdown;
  - (6) Startup following a normal or emergency shutdown or a major change that requires a hazard review;
  - (7) Consequences of deviations and steps required to correct or avoid deviations; and
  - (8) Equipment inspections.
- (c) The owner or operator shall ensure that the operating procedures are updated, if necessary, whenever a major change occurs and prior to startup of the changed process.

### § 68.54 Training.

- (a) The owner or operator shall ensure that each employee presently operating a process, and each employee newly assigned to a covered process have been trained or tested competent in the operating procedures provided in § 68.52 that pertain to their duties. For those employees already operating a process on June 21, 1999, the owner or operator may certify in writing that the employee has the required knowledge, skills, and abilities to safely carry out the duties and responsibilities as provided in the operating procedures.
- (b) Refresher training shall be provided at least every three years, and more often if necessary, to each employee operating a process to ensure that the employee understands and adheres to the current operating procedures of the process. The owner or operator, in consultation with the employees operating the process, shall determine the appropriate frequency of refresher training.
- (c) The owner or operator may use training conducted under Federal or state regulations or under industry-specific standards or codes or training conducted by covered process equipment vendors to demonstrate compliance with this section to the extent that the training meets the requirements of this section.
- (d) The owner or operator shall ensure that operators are trained in any updated or new procedures prior to startup of a process after a major change.

[61 FR 31721, June 20, 1996, as amended at 82 FR 4697, Jan. 13, 2017; 84 FR 69914, Dec. 19, 2019]

### § 68.56 Maintenance.

- (a) The owner or operator shall prepare and implement procedures to maintain the on-going mechanical integrity of the process equipment. The owner or operator may use procedures or instructions provided by covered process equipment vendors or procedures in Federal or state regulations or industry codes as the basis for stationary source maintenance procedures.
- (b) The owner or operator shall train or cause to be trained each employee involved in maintaining the on-going mechanical integrity of the process. To ensure that the employee can perform the job tasks in a safe manner, each such employee shall be trained in the hazards of the process, in how to avoid or correct unsafe conditions, and in the procedures applicable to the employee's job tasks.
- (c) Any maintenance contractor shall ensure that each contract maintenance employee is trained to perform the maintenance procedures developed under paragraph (a) of this section.
- (d) The owner or operator shall perform or cause to be performed inspections and tests on process equipment. Inspection and testing procedures shall follow recognized and generally accepted good engineering practices. The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers' recommendations, industry standards or codes, good engineering practices, and prior operating experience.

### § 68.58 Compliance audits.

- (a) The owner or operator shall certify that they have evaluated compliance with the provisions of this subpart at least every three years to verify that the procedures and practices developed under this subpart are adequate and are being followed.
- (b) The compliance audit shall be conducted by at least one person knowledgeable in the process.
- (c) The owner or operator shall develop a report of the audit findings.
- (d) The owner or operator shall promptly determine and document an appropriate response to each of the findings of the compliance audit and document that deficiencies have been corrected.
- (e) The owner or operator shall retain the two (2) most recent compliance audit reports. This requirement does not apply to any compliance audit report that is more than five years old.

[61 FR 31721, June 20, 1996, as amended at 82 FR 4697, Jan. 13, 2017; 84 FR 69914, Dec. 19, 2019]

### § 68.60 Incident investigation.

- (a) The owner or operator shall investigate each incident which resulted in, or could reasonably have resulted in a catastrophic release.
- (b) An incident investigation shall be initiated as promptly as possible, but not later than 48 hours following the incident.
- (c) An incident investigation team shall be established and consist of at least one person knowledgeable in the process involved and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident.
- (d) A report shall be prepared at the conclusion of the investigation which includes at a minimum:
  - (1) Date of incident;

- (2) Date investigation began;
  - (3) A description of the incident;
  - (4) The factors that contributed to the incident; and,
  - (5) Any recommendations resulting from the investigation.
- (e) The owner or operator shall promptly address and resolve the investigation findings and recommendations. Resolutions and corrective actions shall be documented.
  - (f) The findings shall be reviewed with all affected personnel whose job tasks are affected by the findings.
  - (g) Incident investigation reports shall be retained for five years.

[61 FR 31721, June 20, 1996, as amended at 82 FR 4699, Jan. 13, 2017; 84 FR 69914, Dec. 19, 2019]

### Subpart D - Program 3 Prevention Program

Source: 61 FR 31722, June 20, 1996, unless otherwise noted.

#### § 68.65 Process safety information.

- (a) The owner or operator shall complete a compilation of written process safety information before conducting any process hazard analysis required by the rule. The compilation of written process safety information is to enable the owner or operator and the employees involved in operating the process to identify and understand the hazards posed by those processes involving regulated substances. This process safety information shall include information pertaining to the hazards of the regulated substances used or produced by the process, information pertaining to the technology of the process, and information pertaining to the equipment in the process.
- (b) Information pertaining to the hazards of the regulated substances in the process. This information shall consist of at least the following:
  - (1) Toxicity information;
  - (2) Permissible exposure limits;
  - (3) Physical data;
  - (4) Reactivity data;
  - (5) Corrosivity data;
  - (6) Thermal and chemical stability data; and
  - (7) Hazardous effects of inadvertent mixing of different materials that could foreseeably occur.

Note to paragraph (b): Safety Data Sheets (SDS) meeting the requirements of 29 CFR 1910.1200(g) may be used to comply with this requirement to the extent they contain the information required by paragraph (b) of this section.

- (c) Information pertaining to the technology of the process.

- (1) Information concerning the technology of the process shall include at least the following:
  - (i) A block flow diagram or simplified process flow diagram;
  - (ii) Process chemistry;
  - (iii) Maximum intended inventory;
  - (iv) Safe upper and lower limits for such items as temperatures, pressures, flows or compositions; and,
  - (v) An evaluation of the consequences of deviations.
- (2) Where the original technical information no longer exists, such information may be developed in conjunction with the process hazard analysis in sufficient detail to support the analysis.

(d) Information pertaining to the equipment in the process.

- (1) Information pertaining to the equipment in the process shall include:
  - (i) Materials of construction;
  - (ii) Piping and instrument diagrams (P&ID's);
  - (iii) Electrical classification;
  - (iv) Relief system design and design basis;
  - (v) Ventilation system design;
  - (vi) Design codes and standards employed;
  - (vii) Material and energy balances for processes built after June 21, 1999; and
  - (viii) Safety systems (e.g. interlocks, detection or suppression systems).
- (2) The owner or operator shall document that equipment complies with recognized and generally accepted good engineering practices.
- (3) For existing equipment designed and constructed in accordance with codes, standards, or practices that are no longer in general use, the owner or operator shall determine and document that the equipment is designed, maintained, inspected, tested, and operating in a safe manner.

[61 FR 31722, June 20, 1996, as amended at 82 FR 4699, Jan. 13, 2017; 84 FR 69914, Dec. 19, 2019]

### § 68.67 Process hazard analysis.

- (a) The owner or operator shall perform an initial process hazard analysis (hazard evaluation) on processes covered by this part. The process hazard analysis shall be appropriate to the complexity of the process and shall identify, evaluate, and control the hazards involved in the process. The owner or operator shall determine and document the priority order for conducting process hazard analyses based on a rationale which includes such considerations as extent of the process hazards, number of potentially affected employees, age of the process, and operating history of the process. The process hazard analysis shall be conducted as soon as possible, but not later than June 21, 1999. Process hazards analyses completed to comply with 29 CFR 1910.119(e) are acceptable as initial process hazards analyses. These process hazard analyses shall be updated and revalidated, based on their completion date.

- (b) The owner or operator shall use one or more of the following methodologies that are appropriate to determine and evaluate the hazards of the process being analyzed.
  - (1) What-If;
  - (2) Checklist;
  - (3) What-If/Checklist;
  - (4) Hazard and Operability Study (HAZOP);
  - (5) Failure Mode and Effects Analysis (FMEA);
  - (6) Fault Tree Analysis; or
  - (7) An appropriate equivalent methodology.
- (c) The process hazard analysis shall address:
  - (1) The hazards of the process;
  - (2) The identification of any previous incident which had a likely potential for catastrophic consequences;
  - (3) Engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases. (Acceptable detection methods might include process monitoring and control instrumentation with alarms, and detection hardware such as hydrocarbon sensors.);
  - (4) Consequences of failure of engineering and administrative controls;
  - (5) Stationary source siting;
  - (6) Human factors; and
  - (7) A qualitative evaluation of a range of the possible safety and health effects of failure of controls.
- (d) The process hazard analysis shall be performed by a team with expertise in engineering and process operations, and the team shall include at least one employee who has experience and knowledge specific to the process being evaluated. Also, one member of the team must be knowledgeable in the specific process hazard analysis methodology being used.
- (e) The owner or operator shall establish a system to promptly address the team's findings and recommendations; assure that the recommendations are resolved in a timely manner and that the resolution is documented; document what actions are to be taken; complete actions as soon as possible; develop a written schedule of when these actions are to be completed; communicate the actions to operating, maintenance and other employees whose work assignments are in the process and who may be affected by the recommendations or actions.
- (f) At least every five (5) years after the completion of the initial process hazard analysis, the process hazard analysis shall be updated and revalidated by a team meeting the requirements in paragraph (d) of this section, to assure that the process hazard analysis is consistent with the current process. Updated and revalidated process hazard analyses completed to comply with 29 CFR 1910.119(e) are acceptable to meet the requirements of this paragraph.

- (g) The owner or operator shall retain process hazards analyses and updates or revalidations for each process covered by this section, as well as the documented resolution of recommendations described in paragraph (e) of this section for the life of the process.

[61 FR 31722, June 20, 1996, as amended at 82 FR 4699, Jan. 13, 2017; 84 FR 69914, Dec. 19, 2019]

## § 68.69 Operating procedures.

- (a) The owner or operator shall develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address at least the following elements.
  - (1) Steps for each operating phase:
    - (i) Initial startup;
    - (ii) Normal operations;
    - (iii) Temporary operations;
    - (iv) Emergency shutdown including the conditions under which emergency shutdown is required, and the assignment of shutdown responsibility to qualified operators to ensure that emergency shutdown is executed in a safe and timely manner.
    - (v) Emergency operations;
    - (vi) Normal shutdown; and,
    - (vii) Startup following a turnaround, or after an emergency shutdown.
  - (2) Operating limits:
    - (i) Consequences of deviation; and
    - (ii) Steps required to correct or avoid deviation.
  - (3) Safety and health considerations:
    - (i) Properties of, and hazards presented by, the chemicals used in the process;
    - (ii) Precautions necessary to prevent exposure, including engineering controls, administrative controls, and personal protective equipment;
    - (iii) Control measures to be taken if physical contact or airborne exposure occurs;
    - (iv) Quality control for raw materials and control of hazardous chemical inventory levels; and,
    - (v) Any special or unique hazards.
  - (4) Safety systems and their functions.
- (b) Operating procedures shall be readily accessible to employees who work in or maintain a process.
- (c) The operating procedures shall be reviewed as often as necessary to assure that they reflect current operating practice, including changes that result from changes in process chemicals, technology, and equipment, and changes to stationary sources. The owner or operator shall certify annually that these operating procedures are current and accurate.

- (d) The owner or operator shall develop and implement safe work practices to provide for the control of hazards during operations such as lockout/tagout; confined space entry; opening process equipment or piping; and control over entrance into a stationary source by maintenance, contractor, laboratory, or other support personnel. These safe work practices shall apply to employees and contractor employees.

## § 68.71 Training.

### (a) *Initial training.*

- (1) Each employee presently involved in operating a process, and each employee before being involved in operating a newly assigned process, shall be trained in an overview of the process and in the operating procedures as specified in § 68.69. The training shall include emphasis on the specific safety and health hazards, emergency operations including shutdown, and safe work practices applicable to the employee's job tasks.
- (2) In lieu of initial training for those employees already involved in operating a process on June 21, 1999 an owner or operator may certify in writing that the employee has the required knowledge, skills, and abilities to safely carry out the duties and responsibilities as specified in the operating procedures.

- ### (b) *Refresher training.* Refresher training shall be provided at least every three years, and more often if necessary, to each employee involved in operating a process to assure that the employee understands and adheres to the current operating procedures of the process. The owner or operator, in consultation with the employees involved in operating the process, shall determine the appropriate frequency of refresher training.

- ### (c) *Training documentation.* The owner or operator shall ascertain that each employee involved in operating a process has received and understood the training required by this paragraph. The owner or operator shall prepare a record which contains the identity of the employee, the date of training, and the means used to verify that the employee understood the training.

[61 FR 31722, June 20, 1996, as amended at 82 FR 4699, Jan. 13, 2017; 84 FR 69914, Dec. 19, 2019]

## § 68.73 Mechanical integrity.

- ### (a) *Application.* Paragraphs (b) through (f) of this section apply to the following process equipment:

- (1) Pressure vessels and storage tanks;
- (2) Piping systems (including piping components such as valves);
- (3) Relief and vent systems and devices;
- (4) Emergency shutdown systems;
- (5) Controls (including monitoring devices and sensors, alarms, and interlocks) and,
- (6) Pumps.

- ### (b) *Written procedures.* The owner or operator shall establish and implement written procedures to maintain the on-going integrity of process equipment.



(c) **Training for process maintenance activities.** The owner or operator shall train each employee involved in maintaining the on-going integrity of process equipment in an overview of that process and its hazards and in the procedures applicable to the employee's job tasks to assure that the employee can perform the job tasks in a safe manner.

(d) **Inspection and testing.**

(1) Inspections and tests shall be performed on process equipment.

(2) Inspection and testing procedures shall follow recognized and generally accepted good engineering practices.

(3) The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers' recommendations and good engineering practices, and more frequently if determined to be necessary by prior operating experience.

(4) The owner or operator shall document each inspection and test that has been performed on process equipment. The documentation shall identify the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test.

(e) **Equipment deficiencies.** The owner or operator shall correct deficiencies in equipment that are outside acceptable limits (defined by the process safety information in § 68.65) before further use or in a safe and timely manner when necessary means are taken to assure safe operation.

(f) **Quality assurance.**

(1) In the construction of new plants and equipment, the owner or operator shall assure that equipment as it is fabricated is suitable for the process application for which they will be used.

(2) Appropriate checks and inspections shall be performed to assure that equipment is installed properly and consistent with design specifications and the manufacturer's instructions.

(3) The owner or operator shall assure that maintenance materials, spare parts and equipment are suitable for the process application for which they will be used.

## § 68.75 Management of change.

(a) The owner or operator shall establish and implement written procedures to manage changes (except for "replacements in kind") to process chemicals, technology, equipment, and procedures; and, changes to stationary sources that affect a covered process.

(b) The procedures shall assure that the following considerations are addressed prior to any change:

(1) The technical basis for the proposed change;

(2) Impact of change on safety and health;

(3) Modifications to operating procedures;

(4) Necessary time period for the change; and,

(5) Authorization requirements for the proposed change.

- (c) Employees involved in operating a process and maintenance and contract employees whose job tasks will be affected by a change in the process shall be informed of, and trained in, the change prior to start-up of the process or affected part of the process.
- (d) If a change covered by this paragraph results in a change in the process safety information required by § 68.65 of this part, such information shall be updated accordingly.
- (e) If a change covered by this paragraph results in a change in the operating procedures or practices required by § 68.69, such procedures or practices shall be updated accordingly.

### § 68.77 Pre-startup review.

- (a) The owner or operator shall perform a pre-startup safety review for new stationary sources and for modified stationary sources when the modification is significant enough to require a change in the process safety information.
- (b) The pre-startup safety review shall confirm that prior to the introduction of regulated substances to a process:
  - (1) Construction and equipment is in accordance with design specifications;
  - (2) Safety, operating, maintenance, and emergency procedures are in place and are adequate;
  - (3) For new stationary sources, a process hazard analysis has been performed and recommendations have been resolved or implemented before startup; and modified stationary sources meet the requirements contained in management of change, § 68.75.
  - (4) Training of each employee involved in operating a process has been completed.

### § 68.79 Compliance audits.

- (a) The owner or operator shall certify that they have evaluated compliance with the provisions of this subpart at least every three years to verify that procedures and practices developed under this subpart are adequate and are being followed.
- (b) The compliance audit shall be conducted by at least one person knowledgeable in the process.
- (c) A report of the findings of the audit shall be developed.
- (d) The owner or operator shall promptly determine and document an appropriate response to each of the findings of the compliance audit, and document that deficiencies have been corrected.
- (e) The owner or operator shall retain the two (2) most recent compliance audit reports.

[61 FR 31722, June 20, 1996, as amended at 64 FR 979, Jan. 6, 1999; 82 FR 4699, Jan. 13, 2017; 84 FR 69914, Dec. 19, 2019]

### § 68.81 Incident investigation.

- (a) The owner or operator shall investigate each incident which resulted in, or could reasonably have resulted in a catastrophic release.
- (b) An incident investigation shall be initiated as promptly as possible, but not later than 48 hours following the incident.

- (c) An incident investigation team shall be established and consist of at least one person knowledgeable in the process involved, including a contract employee if the incident involved work of the contractor, and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident.
- (d) A report shall be prepared at the conclusion of the investigation which includes at a minimum:
  - (1) Date of incident;
  - (2) Date investigation began;
  - (3) A description of the incident;
  - (4) The factors that contributed to the incident; and,
  - (5) Any recommendations resulting from the investigation.
- (e) The owner or operator shall establish a system to promptly address and resolve the incident report findings and recommendations. Resolutions and corrective actions shall be documented.
- (f) The report shall be reviewed with all affected personnel whose job tasks are relevant to the incident findings including contract employees where applicable.
- (g) Incident investigation reports shall be retained for five years.

[61 FR 31722, June 20, 1996, as amended at 82 FR 4701, Jan. 13, 2017; 84 FR 69914, Dec. 19, 2019]

### § 68.83 Employee participation.

- (a) The owner or operator shall develop a written plan of action regarding the implementation of the employee participation required by this section.
- (b) The owner or operator shall consult with employees and their representatives on the conduct and development of process hazards analyses and on the development of the other elements of process safety management in this rule.
- (c) The owner or operator shall provide to employees and their representatives access to process hazard analyses and to all other information required to be developed under this rule.

### § 68.85 Hot work permit.

- (a) The owner or operator shall issue a hot work permit for hot work operations conducted on or near a covered process.
- (b) The permit shall document that the fire prevention and protection requirements in 29 CFR 1910.252(a) have been implemented prior to beginning the hot work operations; it shall indicate the date(s) authorized for hot work; and identify the object on which hot work is to be performed. The permit shall be kept on file until completion of the hot work operations.

### § 68.87 Contractors.

- (a) **Application.** This section applies to contractors performing maintenance or repair, turnaround, major renovation, or specialty work on or adjacent to a covered process. It does not apply to contractors providing incidental services which do not influence process safety, such as janitorial work, food and drink services, laundry, delivery or other supply services.

(b) *Owner or operator responsibilities.*

- (1) The owner or operator, when selecting a contractor, shall obtain and evaluate information regarding the contract owner or operator's safety performance and programs.
- (2) The owner or operator shall inform contract owner or operator of the known potential fire, explosion, or toxic release hazards related to the contractor's work and the process.
- (3) The owner or operator shall explain to the contract owner or operator the applicable provisions of subpart E of this part.
- (4) The owner or operator shall develop and implement safe work practices consistent with § 68.69(d), to control the entrance, presence, and exit of the contract owner or operator and contract employees in covered process areas.
- (5) The owner or operator shall periodically evaluate the performance of the contract owner or operator in fulfilling their obligations as specified in paragraph (c) of this section.

(c) *Contract owner or operator responsibilities.*

- (1) The contract owner or operator shall assure that each contract employee is trained in the work practices necessary to safely perform his/her job.
- (2) The contract owner or operator shall assure that each contract employee is instructed in the known potential fire, explosion, or toxic release hazards related to his/her job and the process, and the applicable provisions of the emergency action plan.
- (3) The contract owner or operator shall document that each contract employee has received and understood the training required by this section. The contract owner or operator shall prepare a record which contains the identity of the contract employee, the date of training, and the means used to verify that the employee understood the training.
- (4) The contract owner or operator shall assure that each contract employee follows the safety rules of the stationary source including the safe work practices required by § 68.69(d).
- (5) The contract owner or operator shall advise the owner or operator of any unique hazards presented by the contract owner or operator's work, or of any hazards found by the contract owner or operator's work.

## Subpart E - Emergency Response

**Source:** 61 FR 31725, June 20, 1996, unless otherwise noted.

### § 68.90 Applicability.

- (a) *Responding stationary source.* Except as provided in paragraph (b) of this section, the owner or operator of a stationary source with Program 2 and Program 3 processes shall comply with the requirements of §§ 68.93, 68.95, and 68.96.
- (b) *Non-responding stationary source.* The owner or operator of a stationary source whose employees will not respond to accidental releases of regulated substances need not comply with § 68.95 of this part provided that:

- (1) For stationary sources with any regulated toxic substance held in a process above the threshold quantity, the stationary source is included in the community emergency response plan developed under 42 U.S.C. 11003;
- (2) For stationary sources with only regulated flammable substances held in a process above the threshold quantity, the owner or operator has coordinated response actions with the local fire department;
- (3) Appropriate mechanisms are in place to notify emergency responders when there is a need for a response;
- (4) The owner or operator performs the annual emergency response coordination activities required under § 68.93; and
- (5) The owner or operator performs the annual notification exercises required under § 68.96(a).

[82 FR 4701, Jan. 13, 2017]

### § 68.93 Emergency response coordination activities.

The owner or operator of a stationary source shall coordinate response needs with local emergency planning and response organizations to determine how the stationary source is addressed in the community emergency response plan and to ensure that local response organizations are aware of the regulated substances at the stationary source, their quantities, the risks presented by covered processes, and the resources and capabilities at the stationary source to respond to an accidental release of a regulated substance.

- (a) Coordination shall occur at least annually, and more frequently if necessary, to address changes: At the stationary source; in the stationary source's emergency response and/or emergency action plan; and/or in the community emergency response plan.
- (b) Coordination shall include providing to the local emergency planning and response organizations: The stationary source's emergency response plan if one exists; emergency action plan; updated emergency contact information; and other information necessary for developing and implementing the local emergency response plan. For responding stationary sources, coordination shall also include consulting with local emergency response officials to establish appropriate schedules and plans for field and tabletop exercises required under § 68.96(b). The owner or operator shall request an opportunity to meet with the local emergency planning committee (or equivalent) and/or local fire department as appropriate to review and discuss those materials.
- (c) The owner or operator shall document coordination with local authorities, including: The names of individuals involved and their contact information (phone number, email address, and organizational affiliations); dates of coordination activities; and nature of coordination activities.
- (d) **Classified and restricted information.** The disclosure of information classified or restricted by the Department of Defense or other Federal agencies or contractors of such agencies shall be controlled by applicable laws, regulations, or executive orders concerning the release of that classified or restricted information.

[82 FR 4701, Jan. 13, 2017, as amended at 84 FR 69914, Dec. 19, 2019]

## § 68.95 Emergency response program.

- (a) The owner or operator shall develop and implement an emergency response program for the purpose of protecting public health and the environment. Such program shall include the following elements:
- (1) An emergency response plan, which shall be maintained at the stationary source and contain at least the following elements:
    - (i) Procedures for informing the public and the appropriate Federal, state, and local emergency response agencies about accidental releases;
    - (ii) Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures; and
    - (iii) Procedures and measures for emergency response after an accidental release of a regulated substance;
  - (2) Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance;
  - (3) Training for all employees in relevant procedures; and
  - (4) Procedures to review and update, as appropriate, the emergency response plan to reflect changes at the stationary source and ensure that employees are informed of changes. The owner or operator shall review and update the plan as appropriate based on changes at the stationary source or new information obtained from coordination activities, emergency response exercises, incident investigations, or other available information, and ensure that employees are informed of the changes.
- (b) A written plan that complies with other Federal contingency plan regulations or is consistent with the approach in the National Response Team's Integrated Contingency Plan Guidance ("One Plan") and that, among other matters, includes the elements provided in paragraph (a) of this section, shall satisfy the requirements of this section if the owner or operator also complies with paragraph (c) of this section.
- (c) The emergency response plan developed under paragraph (a)(1) of this section shall be coordinated with the community emergency response plan developed under 42 U.S.C. 11003. Upon request of the LEPC or emergency response officials, the owner or operator shall promptly provide to the local emergency response officials information necessary for developing and implementing the community emergency response plan.

[61 FR 31725, June 20, 1996, as amended at 82 FR 4702, Jan. 13, 2017]

## § 68.96 Emergency response exercises.

- (a) **Notification exercises.** At least once each calendar year, the owner or operator of a stationary source with any Program 2 or Program 3 process shall conduct an exercise of the stationary source's emergency response notification mechanisms required under § 68.90(b)(3) or § 68.95(a)(1)(i), as appropriate, before December 19, 2024, and annually thereafter. Owners or operators of responding stationary sources may perform the notification exercise as part of the tabletop and field exercises required in paragraph (b) of this section. The owner/operator shall maintain a written record of each notification exercise conducted over the last five years.

- (b) **Emergency response exercise program.** The owner or operator of a stationary source subject to the requirements of § 68.95 shall develop and implement an exercise program for its emergency response program, including the plan required under § 68.95(a)(1). Exercises shall involve facility emergency response personnel and, as appropriate, emergency response contractors. When planning emergency response field and tabletop exercises, the owner or operator shall coordinate with local public emergency response officials and invite them to participate in the exercise. The emergency response exercise program shall include:
- (1) **Emergency response field exercises.** The owner or operator shall conduct field exercises involving the simulated accidental release of a regulated substance (*i.e.*, toxic substance release or release of a regulated flammable substance involving a fire and/or explosion).
    - (i) **Frequency.** As part of coordination with local emergency response officials required by § 68.93, the owner or operator shall consult with these officials to establish an appropriate frequency for field exercises.
    - (ii) **Scope.** Field exercises shall involve tests of the source's emergency response plan, including deployment of emergency response personnel and equipment. Field exercises should include: Tests of procedures to notify the public and the appropriate Federal, state, and local emergency response agencies about an accidental release; tests of procedures and measures for emergency response actions including evacuations and medical treatment; tests of communications systems; mobilization of facility emergency response personnel, including contractors, as appropriate; coordination with local emergency responders; emergency response equipment deployment; and any other action identified in the emergency response program, as appropriate.
  - (2) **Tabletop exercises.** The owner or operator shall conduct a tabletop exercise involving the simulated accidental release of a regulated substance.
    - (i) **Frequency.** As part of coordination with local emergency response officials required by § 68.93, the owner or operator shall consult with these officials to establish an appropriate frequency for tabletop exercises, and shall conduct a tabletop exercise before December 21, 2026, and at a minimum of at least once every three years thereafter.
    - (ii) **Scope.** Tabletop exercises shall involve discussions of the source's emergency response plan. The exercise should include discussions of: Procedures to notify the public and the appropriate Federal, state, and local emergency response agencies; procedures and measures for emergency response including evacuations and medical treatment; identification of facility emergency response personnel and/or contractors and their responsibilities; coordination with local emergency responders; procedures for emergency response equipment deployment; and any other action identified in the emergency response plan, as appropriate.
  - (3) **Documentation.** The owner or operator shall prepare an evaluation report within 90 days of each field and tabletop exercise. The report should include: A description of the exercise scenario; names and organizations of each participant; an evaluation of the exercise results including lessons learned; recommendations for improvement or revisions to the emergency response exercise program and emergency response program, and a schedule to promptly address and resolve recommendations.
- (c) **Alternative means of meeting exercise requirements.** The owner or operator may satisfy the requirement to conduct notification, field and/or tabletop exercises through:
- (1) Exercises conducted to meet other Federal, state or local exercise requirements, provided the exercise meets the requirements of paragraphs (a) and/or (b) of this section, as appropriate.

- (2) Response to an accidental release, provided the response includes the actions indicated in paragraphs (a) and/or (b) of this section, as appropriate. When used to meet field and/or tabletop exercise requirements, the owner or operator shall prepare an after-action report comparable to the exercise evaluation report required in paragraph (b)(3) of this section, within 90 days of the incident.

[82 FR 4702, Jan. 13, 2017, as amended at 84 FR 69915, Dec. 19, 2019]

## Subpart F - Regulated Substances for Accidental Release Prevention

**Source:** 59 FR 4493, Jan. 31, 1994, unless otherwise noted. Redesignated at 61 FR 31717, June 20, 1996.

### § 68.100 Purpose.

This subpart designates substances to be listed under section 112(r)(3), (4), and (5) of the Clean Air Act, as amended, identifies their threshold quantities, and establishes the requirements for petitioning to add or delete substances from the list.

### § 68.115 Threshold determination.

- (a) A threshold quantity of a regulated substance listed in § 68.130 is present at a stationary source if the total quantity of the regulated substance contained in a process exceeds the threshold.
- (b) For the purposes of determining whether more than a threshold quantity of a regulated substance is present at the stationary source, the following exemptions apply:
  - (1) **Concentrations of a regulated toxic substance in a mixture.** If a regulated substance is present in a mixture and the concentration of the substance is below one percent by weight of the mixture, the amount of the substance in the mixture need not be considered when determining whether more than a threshold quantity is present at the stationary source. Except for oleum, toluene 2,4-diisocyanate, toluene 2,6-diisocyanate, and toluene diisocyanate (unspecified isomer), if the concentration of the regulated substance in the mixture is one percent or greater by weight, but the owner or operator can demonstrate that the partial pressure of the regulated substance in the mixture (solution) under handling or storage conditions in any portion of the process is less than 10 millimeters of mercury (mm Hg), the amount of the substance in the mixture in that portion of the process need not be considered when determining whether more than a threshold quantity is present at the stationary source. The owner or operator shall document this partial pressure measurement or estimate.
  - (2) **Concentrations of a regulated flammable substance in a mixture.**
    - (i) **General provision.** If a regulated substance is present in a mixture and the concentration of the substance is below one percent by weight of the mixture, the mixture need not be considered when determining whether more than a threshold quantity of the regulated substance is present at the stationary source. Except as provided in paragraph (b)(2) (ii) and (iii) of this section, if the concentration of the substance is one percent or greater by weight of the mixture, then, for purposes of determining whether a threshold quantity is present at the stationary source, the entire weight of the mixture shall be treated as the regulated substance unless the owner or operator can demonstrate that the mixture itself does not have a National Fire Protection Association flammability hazard rating of 4. The demonstration shall be in accordance with the definition of flammability hazard rating 4 in the NFPA 704, Standard



System for the Identification of the Hazards of Materials for Emergency Response, National Fire Protection Association, Quincy, MA, 1996. Available from the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269-9101. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at the Environmental Protection Agency Air Docket (6102), Attn: Docket No. A-96-08, Waterside Mall, 401 M. St. SW., Washington DC; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). Boiling point and flash point shall be defined and determined in accordance with NFPA 30, Flammable and Combustible Liquids Code, National Fire Protection Association, Quincy, MA, 1996. Available from the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269-9101. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at the Environmental Protection Agency Air Docket (6102), Attn: Docket No. A-96-08, Waterside Mall, 401 M. St. SW., Washington DC; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). The owner or operator shall document the National Fire Protection Association flammability hazard rating.

- (ii) **Gasoline.** Regulated substances in gasoline, when in distribution or related storage for use as fuel for internal combustion engines, need not be considered when determining whether more than a threshold quantity is present at a stationary source.
  - (iii) **Naturally occurring hydrocarbon mixtures.** Prior to entry into a natural gas processing plant or a petroleum refining process unit, regulated substances in naturally occurring hydrocarbon mixtures need not be considered when determining whether more than a threshold quantity is present at a stationary source. Naturally occurring hydrocarbon mixtures include any combination of the following: condensate, crude oil, field gas, and produced water, each as defined in § 68.3 of this part.
- (3) **Articles.** Regulated substances contained in articles need not be considered when determining whether more than a threshold quantity is present at the stationary source.
- (4) **Uses.** Regulated substances, when in use for the following purposes, need not be included in determining whether more than a threshold quantity is present at the stationary source:
- (i) Use as a structural component of the stationary source;
  - (ii) Use of products for routine janitorial maintenance;
  - (iii) Use by employees of foods, drugs, cosmetics, or other personal items containing the regulated substance; and
  - (iv) Use of regulated substances present in process water or non-contact cooling water as drawn from the environment or municipal sources, or use of regulated substances present in air used either as compressed air or as part of combustion.
- (5) **Activities in laboratories.** If a regulated substance is manufactured, processed, or used in a laboratory at a stationary source under the supervision of a technically qualified individual as defined in § 720.3(ee) of this chapter, the quantity of the substance need not be considered in determining whether a threshold quantity is present. This exemption does not apply to:

- (i) Specialty chemical production;
- (ii) Manufacture, processing, or use of substances in pilot plant scale operations; and
- (iii) Activities conducted outside the laboratory.

[59 FR 4493, Jan. 31, 1994. Redesignated at 61 FR 31717, June 20, 1996, as amended at 63 FR 645, Jan. 6, 1998; 69 FR 18803, Apr. 9, 2004]

### § 68.120 Petition process.

- (a) Any person may petition the Administrator to modify, by addition or deletion, the list of regulated substances identified in § 68.130. Based on the information presented by the petitioner, the Administrator may grant or deny a petition.
- (b) A substance may be added to the list if, in the case of an accidental release, it is known to cause or may be reasonably anticipated to cause death, injury, or serious adverse effects to human health or the environment.
- (c) A substance may be deleted from the list if adequate data on the health and environmental effects of the substance are available to determine that the substance, in the case of an accidental release, is not known to cause and may not be reasonably anticipated to cause death, injury, or serious adverse effects to human health or the environment.
- (d) No substance for which a national primary ambient air quality standard has been established shall be added to the list. No substance regulated under title VI of the Clean Air Act, as amended, shall be added to the list.
- (e) The burden of proof is on the petitioner to demonstrate that the criteria for addition and deletion are met. A petition will be denied if this demonstration is not made.
- (f) The Administrator will not accept additional petitions on the same substance following publication of a final notice of the decision to grant or deny a petition, unless new data becomes available that could significantly affect the basis for the decision.
- (g) Petitions to modify the list of regulated substances must contain the following:
  - (1) Name and address of the petitioner and a brief description of the organization(s) that the petitioner represents, if applicable;
  - (2) Name, address, and telephone number of a contact person for the petition;
  - (3) Common chemical name(s), common synonym(s), Chemical Abstracts Service number, and chemical formula and structure;
  - (4) Action requested (add or delete a substance);
  - (5) Rationale supporting the petitioner's position; that is, how the substance meets the criteria for addition and deletion. A short summary of the rationale must be submitted along with a more detailed narrative; and
  - (6) Supporting data; that is, the petition must include sufficient information to scientifically support the request to modify the list. Such information shall include:
    - (i) A list of all support documents;

- (ii) Documentation of literature searches conducted, including, but not limited to, identification of the database(s) searched, the search strategy, dates covered, and printed results;
- (iii) Effects data (animal, human, and environmental test data) indicating the potential for death, injury, or serious adverse human and environmental impacts from acute exposure following an accidental release; printed copies of the data sources, in English, should be provided; and
- (iv) Exposure data or previous accident history data, indicating the potential for serious adverse human health or environmental effects from an accidental release. These data may include, but are not limited to, physical and chemical properties of the substance, such as vapor pressure; modeling results, including data and assumptions used and model documentation; and historical accident data, citing data sources.

(h) Within 18 months of receipt of a petition, the Administrator shall publish in the FEDERAL REGISTER a notice either denying the petition or granting the petition and proposing a listing.

**§ 68.125 Exemptions.**

*Agricultural nutrients.* Ammonia used as an agricultural nutrient, when held by farmers, is exempt from all provisions of this part.

**§ 68.126 Exclusion.**

*Flammable Substances Used as Fuel or Held for Sale as Fuel at Retail Facilities.* A flammable substance listed in Tables 3 and 4 of § 68.130 is nevertheless excluded from all provisions of this part when the substance is used as a fuel or held for sale as a fuel at a retail facility.

[65 FR 13250, Mar. 13, 2000]

**§ 68.130 List of substances.**

- (a) Regulated toxic and flammable substances under section 112(r) of the Clean Air Act are the substances listed in Tables 1, 2, 3, and 4. Threshold quantities for listed toxic and flammable substances are specified in the tables.
- (b) The basis for placing toxic and flammable substances on the list of regulated substances are explained in the notes to the list.

Table 1 to § 68.130 - List of Regulated Toxic Substances and Threshold Quantities for Accidental Release Prevention

[Alphabetical Order - 77 Substances]

Chemical name	CAS No.	Threshold quantity (lbs)	Basis for listing
Acrolein [2-Propenal]	107-02-8	5,000	b
Acrylonitrile [2-Propenenitrile]	107-13-1	20,000	b
Acrylyl chloride [2-Propenoyl chloride]	814-68-6	5,000	b
Allyl alcohol [2-Propen-l-ol]	107-18-6	15,000	b
Allylamine [2-Propen-l-amine]	107-11-9	10,000	b

Chemical name	CAS No.	Threshold quantity (lbs)	Basis for listing
Ammonia (anhydrous)	7664-41-7	10,000	a, b
Ammonia (conc 20% or greater)	7664-41-7	20,000	a, b
Arsenous trichloride	7784-34-1	15,000	b
Arsine	7784-42-1	1,000	b
Boron trichloride [Borane, trichloro-]	10294-34-5	5,000	b
Boron trifluoride [Borane, trifluoro-]	7637-07-2	5,000	b
Boron trifluoride compound with methyl ether (1:1) [Boron, trifluoro [oxybis [metane]]-, T-4-	353-42-4	15,000	b
Bromine	7726-95-6	10,000	a, b
Carbon disulfide	75-15-0	20,000	b
Chlorine	7782-50-5	2,500	a, b
Chlorine dioxide [Chlorine oxide (ClO <sub>2</sub> )]	10049-04-4	1,000	c
Chloroform [Methane, trichloro-]	67-66-3	20,000	b
Chloromethyl ether [Methane, oxybis[chloro-]	542-88-1	1,000	b
Chloromethyl methyl ether [Methane, chloromethoxy-]	107-30-2	5,000	b
Crotonaldehyde [2-Butenal]	4170-30-3	20,000	b
Crotonaldehyde, (E)- [2-Butenal, (E)-]	123-73-9	20,000	b
Cyanogen chloride	506-77-4	10,000	c
Cyclohexylamine [Cyclohexanamine]	108-91-8	15,000	b
Diborane	19287-45-7	2,500	b
Dimethyldichlorosilane [Silane, dichlorodimethyl-]	75-78-5	5,000	b
1,1-Dimethylhydrazine [Hydrazine, 1,1-dimethyl-]	57-14-7	15,000	b
Epichlorohydrin [Oxirane, (chloromethyl)-]	106-89-8	20,000	b
Ethylenediamine [1,2-Ethanediamine]	107-15-3	20,000	b
Ethyleneimine [Aziridine]	151-56-4	10,000	b
Ethylene oxide [Oxirane]	75-21-8	10,000	a, b
Fluorine	7782-41-4	1,000	b
Formaldehyde (solution)	50-00-0	15,000	b
Furan	110-00-9	5,000	b
Hydrazine	302-01-2	15,000	b
Hydrochloric acid (conc 37% or greater)	7647-01-0	15,000	d
Hydrocyanic acid	74-90-8	2,500	a, b
Hydrogen chloride (anhydrous) [Hydrochloric acid]	7647-01-0	5,000	a
Hydrogen fluoride/Hydrofluoric acid (conc 50% or greater) [Hydrofluoric acid]	7664-39-3	1,000	a, b
Hydrogen selenide	7783-07-5	500	b
Hydrogen sulfide	7783-06-4	10,000	a, b
Iron, pentacarbonyl- [Iron carbonyl (Fe(CO) <sub>5</sub> ), (TB-5-11)-]	13463-40-6	2,500	b
Isobutyronitrile [Propanenitrile, 2-methyl-]	78-82-0	20,000	b

Chemical name	CAS No.	Threshold quantity (lbs)	Basis for listing
Isopropyl chloroformate [Carbonochloridic acid, 1-methylethyl ester]	108-23-6	15,000	b
Methacrylonitrile [2-Propenenitrile, 2-methyl-]	126-98-7	10,000	b
Methyl chloride [Methane, chloro-]	74-87-3	10,000	a
Methyl chloroformate [Carbonochloridic acid, methylester]	79-22-1	5,000	b
Methyl hydrazine [Hydrazine, methyl-]	60-34-4	15,000	b
Methyl isocyanate [Methane, isocyanato-]	624-83-9	10,000	a, b
Methyl mercaptan [Methanethiol]	74-93-1	10,000	b
Methyl thiocyanate [Thiocyanic acid, methyl ester]	556-64-9	20,000	b
Methyltrichlorosilane [Silane, trichloromethyl-]	75-79-6	5,000	b
Nickel carbonyl	13463-39-3	1,000	b
Nitric acid (conc 80% or greater)	7697-37-2	15,000	b
Nitric oxide [Nitrogen oxide (NO)]	10102-43-9	10,000	b
Oleum (Fuming Sulfuric acid) [Sulfuric acid, mixture with sulfur trioxide] <sup>1</sup>	8014-95-7	10,000	e
Peracetic acid [Ethaneperoxoic acid]	79-21-0	10,000	b
Perchloromethylmercaptan [Methanesulphenyl chloride, trichloro-]	594-42-3	10,000	b
Phosgene [Carbonic dichloride]	75-44-5	500	a, b
Phosphine	7803-51-2	5,000	b
Phosphorus oxychloride [Phosphoryl chloride]	10025-87-3	5,000	b
Phosphorus trichloride [Phosphorous trichloride]	7719-12-2	15,000	b
Piperidine	110-89-4	15,000	b
Propionitrile [Propanenitrile]	107-12-0	10,000	b
Propyl chloroformate [Carbonochloridic acid, propylester]	109-61-5	15,000	b
Propyleneimine [Aziridine, 2-methyl-]	75-55-8	10,000	b
Propylene oxide [Oxirane, methyl-]	75-56-9	10,000	b
Sulfur dioxide (anhydrous)	7446-09-5	5,000	a, b
Sulfur tetrafluoride [Sulfur fluoride (SF <sub>4</sub> ), (T-4)-]	7783-60-0	2,500	b
Sulfur trioxide	7446-11-9	10,000	a, b
Tetramethyllead [Plumbane, tetramethyl-]	75-74-1	10,000	b
Tetranitromethane [Methane, tetranitro-]	509-14-8	10,000	b
Titanium tetrachloride [Titanium chloride (TiCl <sub>4</sub> ) (T-4)-]	7550-45-0	2,500	b
Toluene 2,4-diisocyanate [Benzene, 2,4-diisocyanato-1-methyl-] <sup>1</sup>	584-84-9	10,000	a
Toluene 2,6-diisocyanate [Benzene, 1,3-diisocyanato-2-methyl-] <sup>1</sup>	91-08-7	10,000	a
Toluene diisocyanate (unspecified isomer) [Benzene, 1,3-diisocyanatomethyl-] <sup>1</sup>	26471-62-5	10,000	a
Trimethylchlorosilane [Silane, chlorotrimethyl-]	75-77-4	10,000	b
Vinyl acetate monomer [Acetic acid ethenyl ester]	108-05-4	15,000	b

<sup>1</sup> The mixture exemption in § 68.115(b)(1) does not apply to the substance.

NOTE: Basis for Listing:

a Mandated for listing by Congress.

b On EHS list, vapor pressure 10 mmHg or greater.

c Toxic gas.

d Toxicity of hydrogen chloride, potential to release hydrogen chloride, and history of accidents.

e Toxicity of sulfur trioxide and sulfuric acid, potential to release sulfur trioxide, and history of accidents.

Table 2 to § 68.130 - List of Regulated Toxic Substances and Threshold Quantities for Accidental Release Prevention

[CAS Number Order - 77 Substances]

CAS No.	Chemical name	Threshold quantity (lbs)	Basis for listing
50-00-0	Formaldehyde (solution)	15,000	b
57-14-7	1,1-Dimethylhydrazine [Hydrazine, 1,1-dimethyl-]	15,000	b
60-34-4	Methyl hydrazine [Hydrazine, methyl-]	15,000	b
67-66-3	Chloroform [Methane, trichloro-]	20,000	b
74-87-3	Methyl chloride [Methane, chloro-]	10,000	a
74-90-8	Hydrocyanic acid	2,500	a, b
74-93-1	Methyl mercaptan [Methanethiol]	10,000	b
75-15-0	Carbon disulfide	20,000	b
75-21-8	Ethylene oxide [Oxirane]	10,000	a, b
75-44-5	Phosgene [Carbonic dichloride]	500	a, b
75-55-8	Propyleneimine [Aziridine, 2-methyl-]	10,000	b
75-56-9	Propylene oxide [Oxirane, methyl-]	10,000	b
75-74-1	Tetramethyllead [Plumbane, tetramethyl-]	10,000	b
75-77-4	Trimethylchlorosilane [Silane, chlorotrimethyl-]	10,000	b
75-78-5	Dimethyldichlorosilane [Silane, dichlorodimethyl-]	5,000	b
75-79-6	Methyltrichlorosilane [Silane, trichloromethyl-]	5,000	b
78-82-0	Isobutyronitrile [Propanenitrile, 2-methyl-]	20,000	b
79-21-0	Peracetic acid [Ethaneperoxoic acid]	10,000	b
79-22-1	Methyl chloroformate [Carbonochloridic acid, methylester]	5,000	b
91-08-7	Toluene 2,6-diisocyanate [Benzene, 1,3-diisocyanato-2-methyl-] <sup>1</sup>	10,000	a
106-89-8	Epichlorohydrin [Oxirane, (chloromethyl)-]	20,000	b

CAS No.	Chemical name	Threshold quantity (lbs)	Basis for listing
107-02-8	Acrolein [2-Propenal]	5,000	b
107-11-9	Allylamine [2-Propen-1-amine]	10,000	b
107-12-0	Propionitrile [Propanenitrile]	10,000	b
107-13-1	Acrylonitrile [2-Propenenitrile]	20,000	b
107-15-3	Ethylenediamine [1,2-Ethanediamine]	20,000	b
107-18-6	Allyl alcohol [2-Propen-1-ol]	15,000	b
107-30-2	Chloromethyl methyl ether [Methane, chloromethoxy-]	5,000	b
108-05-4	Vinyl acetate monomer [Acetic acid ethenyl ester]	15,000	b
108-23-6	Isopropyl chloroformate [Carbonochloridic acid, 1-methylethyl ester]	15,000	b
108-91-8	Cyclohexylamine [Cyclohexanamine]	15,000	b
109-61-5	Propyl chloroformate [Carbonochloridic acid, propylester]	15,000	b
110-00-9	Furan	5,000	b
110-89-4	Piperidine	15,000	b
123-73-9	Crotonaldehyde, (E)- [2-Butenal, (E)-]	20,000	b
126-98-7	Methacrylonitrile [2-Propenenitrile, 2-methyl-]	10,000	b
151-56-4	Ethyleneimine [Aziridine]	10,000	b
302-01-2	Hydrazine	15,000	b
353-42-4	Boron trifluoride compound with methyl ether (1:1) [Boron, trifluoro[oxybis[methane]]-, T-4-	15,000	b
506-77-4	Cyanogen chloride	10,000	c
509-14-8	Tetranitromethane [Methane, tetranitro-]	10,000	b
542-88-1	Chloromethyl ether [Methane, oxybis[chloro-]	1,000	b
556-64-9	Methyl thiocyanate [Thiocyanic acid, methyl ester]	20,000	b
584-84-9	Toluene 2,4-diisocyanate [Benzene, 2,4-diisocyanato-1-methyl-] <sup>1</sup>	10,000	a
594-42-3	Perchloromethylmercaptan [Methanesulfenyl chloride, trichloro-]	10,000	b
624-83-9	Methyl isocyanate [Methane, isocyanato-]	10,000	a, b
814-68-6	Acrylyl chloride [2-Propenoyl chloride]	5,000	b
4170-30-3	Crotonaldehyde [2-Butenal]	20,000	b
7446-09-5	Sulfur dioxide (anhydrous)	5,000	a, b
7446-11-9	Sulfur trioxide	10,000	a, b
7550-45-0	Titanium tetrachloride [Titanium chloride (TiCl <sub>4</sub> ) (T-4)-]	2,500	b
7637-07-2	Boron trifluoride [Borane, trifluoro-]	5,000	b
7647-01-0	Hydrochloric acid (conc 37% or greater)	15,000	d
7647-01-0	Hydrogen chloride (anhydrous) [Hydrochloric acid]	5,000	a
7664-39-3	Hydrogen fluoride/Hydrofluoric acid (conc 50% or greater) [Hydrofluoric acid]	1,000	a, b
7664-41-7	Ammonia (anhydrous)	10,000	a, b
7664-41-7	Ammonia (conc 20% or greater)	20,000	a, b

CAS No.	Chemical name	Threshold quantity (lbs)	Basis for listing
7697-37-2	Nitric acid (conc 80% or greater)	15,000	b
7719-12-2	Phosphorus trichloride [Phosphorous trichloride]	15,000	b
7726-95-6	Bromine	10,000	a, b
7782-41-4	Fluorine	1,000	b
7782-50-5	Chlorine	2,500	a, b
7783-06-4	Hydrogen sulfide	10,000	a, b
7783-07-5	Hydrogen selenide	500	b
7783-60-0	Sulfur tetrafluoride [Sulfur fluoride (SF <sub>4</sub> ), (T-4)-]	2,500	b
7784-34-1	Arsenous trichloride	15,000	b
7784-42-1	Arsine	1,000	b
7803-51-2	Phosphine	5,000	b
8014-95-7	Oleum (Fuming Sulfuric acid) [Sulfuric acid, mixture with sulfur trioxide] <sup>1</sup>	10,000	e
10025-87-3	Phosphorus oxychloride [Phosphoryl chloride]	5,000	b
10049-04-4	Chlorine dioxide [Chlorine oxide (ClO <sub>2</sub> )]	1,000	c
10102-43-9	Nitric oxide [Nitrogen oxide (NO)]	10,000	b
10294-34-5	Boron trichloride [Borane, trichloro-]	5,000	b
13463-39-3	Nickel carbonyl	1,000	b
13463-40-6	Iron, pentacarbonyl- [Iron carbonyl (Fe(CO) <sub>5</sub> ), (TB-5-11)-]	2,500	b
19287-45-7	Diborane	2,500	b
26471-62-5	Toluene diisocyanate (unspecified isomer) [Benzene, 1,3-diisocyanatomethyl-1] <sup>1</sup>	10,000	a

<sup>1</sup> The mixture exemption in § 68.115(b)(1) does not apply to the substance.

NOTE: Basis for Listing:

a Mandated for listing by Congress.

b On EHS list, vapor pressure 10 mmHg or greater.

c Toxic gas.

d Toxicity of hydrogen chloride, potential to release hydrogen chloride, and history of accidents.

e Toxicity of sulfur trioxide and sulfuric acid, potential to release sulfur trioxide, and history of accidents.



Table 3 to § 68.130 - List of Regulated Flammable Substances<sup>1</sup> and  
 Threshold Quantities for Accidental Release Prevention

[Alphabetical Order - 63 Substances]

Chemical name	CAS No.	Threshold quantity (lbs)	Basis for listing
Acetaldehyde	75-07-0	10,000	g
Acetylene [Ethyne]	74-86-2	10,000	f
Bromotrifluoroethylene [Ethene, bromotrifluoro-]	598-73-2	10,000	f
1,3-Butadiene	106-99-0	10,000	f
Butane	106-97-8	10,000	f
1-Butene	106-98-9	10,000	f
2-Butene	107-01-7	10,000	f
Butene	25167-67-3	10,000	f
2-Butene-cis	590-18-1	10,000	f
2-Butene-trans [2-Butene, (E)]	624-64-6	10,000	f
Carbon oxysulfide [Carbon oxide sulfide (COS)]	463-58-1	10,000	f
Chlorine monoxide [Chlorine oxide]	7791-21-1	10,000	f
2-Chloropropylene [1-Propene, 2-chloro-]	557-98-2	10,000	g
1-Chloropropylene [1-Propene, 1-chloro-]	590-21-6	10,000	g
Cyanogen [Ethanedinitrile]	460-19-5	10,000	f
Cyclopropane	75-19-4	10,000	f
Dichlorosilane [Silane, dichloro-]	4109-96-0	10,000	f
Difluoroethane [Ethane, 1,1-difluoro-]	75-37-6	10,000	f
Dimethylamine [Methanamine, N-methyl-]	124-40-3	10,000	f
2,2-Dimethylpropane [Propane, 2,2-dimethyl-]	463-82-1	10,000	f
Ethane	74-84-0	10,000	f
Ethyl acetylene [1-Butyne]	107-00-6	10,000	f
Ethylamine [Ethanamine]	75-04-7	10,000	f
Ethyl chloride [Ethane, chloro-]	75-00-3	10,000	f
Ethylene [Ethene]	74-85-1	10,000	f
Ethyl ether [Ethane, 1,1'-oxybis-]	60-29-7	10,000	g
Ethyl mercaptan [Ethanethiol]	75-08-1	10,000	g
Ethyl nitrite [Nitrous acid, ethyl ester]	109-95-5	10,000	f
Hydrogen	1333-74-0	10,000	f
Isobutane [Propane, 2-methyl]	75-28-5	10,000	f
Isopentane [Butane, 2-methyl-]	78-78-4	10,000	g
Isoprene [1,3-Butadiene, 2-methyl-]	78-79-5	10,000	g
Isopropylamine [2-Propanamine]	75-31-0	10,000	g
Isopropyl chloride [Propane, 2-chloro-]	75-29-6	10,000	g
Methane	74-82-8	10,000	f
Methylamine [Methanamine]	74-89-5	10,000	f

Chemical name	CAS No.	Threshold quantity (lbs)	Basis for listing
3-Methyl-1-butene	563-45-1	10,000	f
2-Methyl-1-butene	563-46-2	10,000	g
Methyl ether [Methane, oxybis-]	115-10-6	10,000	f
Methyl formate [Formic acid, methyl ester]	107-31-3	10,000	g
2-Methylpropene [1-Propene, 2-methyl-]	115-11-7	10,000	f
1,3-Pentadinene	504-60-9	10,000	f
Pentane	109-66-0	10,000	g
1-Pentene	109-67-1	10,000	g
2-Pentene, (E)-	646-04-8	10,000	g
2-Pentene, (Z)-	627-20-3	10,000	g
Propadiene [1,2-Propadiene]	463-49-0	10,000	f
Propane	74-98-6	10,000	f
Propylene [1-Propene]	115-07-1	10,000	f
Propyne [1-Propyne]	74-99-7	10,000	f
Silane	7803-62-5	10,000	f
Tetrafluoroethylene [Ethene, tetrafluoro-]	116-14-3	10,000	f
Tetramethylsilane [Silane, tetramethyl-]	75-76-3	10,000	g
Trichlorosilane [Silane, trichloro-]	10025-78-2	10,000	g
Trifluorochloroethylene [Ethene, chlorotrifluoro-]	79-38-9	10,000	f
Trimethylamine [Methanamine, N,N-dimethyl-]	75-50-3	10,000	f
Vinyl acetylene [1-Buten-3-yne]	689-97-4	10,000	f
Vinyl chloride [Ethene, chloro-]	75-01-4	10,000	a, f
Vinyl ethyl ether [Ethene, ethoxy-]	109-92-2	10,000	g
Vinyl fluoride [Ethene, fluoro-]	75-02-5	10,000	f
Vinylidene chloride [Ethene, 1,1-dichloro-]	75-35-4	10,000	g
Vinylidene fluoride [Ethene, 1,1-difluoro-]	75-38-7	10,000	f
Vinyl methyl ether [Ethene, methoxy-]	107-25-5	10,000	f

<sup>1</sup> A flammable substance when used as a fuel or held for sale as a fuel at a retail facility is excluded from all provisions of this part (see § 68.126).

NOTE: Basis for Listing:

<sup>a</sup> Mandated for listing by Congress.

<sup>f</sup> Flammable gas.

<sup>g</sup> Volatile flammable liquid.

Table 4 to § 68.130 - List of Regulated Flammable Substances<sup>1</sup> and Threshold Quantities for Accidental Release Prevention

[CAS Number Order - 63 Substances]

CAS No.	Chemical name	Threshold quantity (lbs)	Basis for listing
60-29-7	Ethyl ether [Ethane, 1,1'-oxybis-]	10,000	g
74-82-8	Methane	10,000	f
74-84-0	Ethane	10,000	f
74-85-1	Ethylene [Ethene]	10,000	f
74-86-2	Acetylene [Ethyne]	10,000	f
74-89-5	Methylamine [Methanamine]	10,000	f
74-98-6	Propane	10,000	f
74-99-7	Propyne [1-Propyne]	10,000	f
75-00-3	Ethyl chloride [Ethane, chloro-]	10,000	f
75-01-4	Vinyl chloride [Ethene, chloro-]	10,000	a, f
75-02-5	Vinyl fluoride [Ethene, fluoro-]	10,000	f
75-04-7	Ethylamine [Ethanamine]	10,000	f
75-07-0	Acetaldehyde	10,000	g
75-08-1	Ethyl mercaptan [Ethanethiol]	10,000	g
75-19-4	Cyclopropane	10,000	f
75-28-5	Isobutane [Propane, 2-methyl]	10,000	f
75-29-6	Isopropyl chloride [Propane, 2-chloro-]	10,000	g
75-31-0	Isopropylamine [2-Propanamine]	10,000	g
75-35-4	Vinylidene chloride [Ethene, 1,1-dichloro-]	10,000	g
75-37-6	Difluoroethane [Ethane, 1,1-difluoro-]	10,000	f
75-38-7	Vinylidene fluoride [Ethene, 1,1-difluoro-]	10,000	f
75-50-3	Trimethylamine [Methanamine, N, N-dimethyl-]	10,000	f
75-76-3	Tetramethylsilane [Silane, tetramethyl-]	10,000	g
78-78-4	Isopentane [Butane, 2-methyl-]	10,000	g
78-79-5	Isoprene [1,3-Butadiene, 2-methyl-]	10,000	g
79-38-9	Trifluorochloroethylene [Ethene, chlorotrifluoro-]	10,000	f
106-97-8	Butane	10,000	f
106-98-9	1-Butene	10,000	f
106-99-0	1,3-Butadiene	10,000	f
107-00-6	Ethyl acetylene [1-Butyne]	10,000	f
107-01-7	2-Butene	10,000	f
107-25-5	Vinyl methyl ether [Ethene, methoxy-]	10,000	f
107-31-3	Methyl formate [Formic acid, methyl ester]	10,000	g
109-66-0	Pentane	10,000	g
109-67-1	1-Pentene	10,000	g
109-92-2	Vinyl ethyl ether [Ethene, ethoxy-]	10,000	g
109-95-5	Ethyl nitrite [Nitrous acid, ethyl ester]	10,000	f
115-07-1	Propylene [1-Propene]	10,000	f

CAS No.	Chemical name	Threshold quantity (lbs)	Basis for listing
115-10-6	Methyl ether [Methane, oxybis-]	10,000	f
115-11-7	2-Methylpropene [1-Propene, 2-methyl-]	10,000	f
116-14-3	Tetrafluoroethylene [Ethene, tetrafluoro-]	10,000	f
124-40-3	Dimethylamine [Methanamine, N-methyl-]	10,000	f
460-19-5	Cyanogen [Ethanedinitrile]	10,000	f
463-49-0	Propadiene [1,2-Propadiene]	10,000	f
463-58-1	Carbon oxysulfide [Carbon oxide sulfide (COS)]	10,000	f
463-82-1	2,2-Dimethylpropane [Propane, 2,2-dimethyl-]	10,000	f
504-60-9	1,3-Pentadiene	10,000	f
557-98-2	2-Chloropropylene [1-Propene, 2-chloro-]	10,000	g
563-45-1	3-Methyl-1-butene	10,000	f
563-46-2	2-Methyl-1-butene	10,000	g
590-18-1	2-Butene-cis	10,000	f
590-21-6	1-Chloropropylene [1-Propene, 1-chloro-]	10,000	g
598-73-2	Bromotrifluoroethylene [Ethene, bromotrifluoro-]	10,000	f
624-64-6	2-Butene-trans [2-Butene, (E)]	10,000	f
627-20-3	2-Pentene, (Z)-	10,000	g
646-04-8	2-Pentene, (E)-	10,000	g
689-97-4	Vinyl acetylene [1-Buten-3-yne]	10,000	f
1333-74-0	Hydrogen	10,000	f
4109-96-0	Dichlorosilane [Silane, dichloro-]	10,000	f
7791-21-1	Chlorine monoxide [Chlorine oxide]	10,000	f
7803-62-5	Silane	10,000	f
10025-78-2	Trichlorosilane [Silane, trichloro-]	10,000	g
25167-67-3	Butene	10,000	f

<sup>1</sup> A flammable substance when used as a fuel or held for sale as a fuel at a retail facility is excluded from all provisions of this part (see § 68.126).

**Note:** Basis for Listing:

<sup>a</sup> Mandated for listing by Congress.

<sup>f</sup> Flammable gas.

<sup>g</sup> Volatile flammable liquid.

[59 FR 4493, Jan. 31, 1994. Redesignated at 61 FR 31717, June 20, 1996, as amended at 62 FR 45132, Aug. 25, 1997; 63 FR 645, Jan. 6, 1998; 65 FR 13250, Mar. 13, 2000; 82 FR 4702, Jan. 13, 2017]

## Subpart G - Risk Management Plan

**Source:** 61 FR 31726, June 20, 1996, unless otherwise noted.

### § 68.150 Submission.

- (a) The owner or operator shall submit a single RMP that includes the information required by §§ 68.155 through 68.185 for all covered processes. The RMP shall be submitted in the method and format to the central point specified by EPA as of the date of submission.
- (b) The owner or operator shall submit the first RMP no later than the latest of the following dates:
  - (1) June 21, 1999;
  - (2) Three years after the date on which a regulated substance is first listed under § 68.130; or
  - (3) The date on which a regulated substance is first present above a threshold quantity in a process.
- (c) The owner or operator of any stationary source for which an RMP was submitted before June 21, 2004, shall revise the RMP to include the information required by § 68.160(b)(6) and (14) by June 21, 2004 in the manner specified by EPA prior to that date. Any such submission shall also include the information required by § 68.160(b)(20) (indicating that the submission is a correction to include the information required by § 68.160(b)(6) and (14) or an update under § 68.190).
- (d) RMPs submitted under this section shall be updated and corrected in accordance with §§ 68.190 and 68.195.
- (e) Notwithstanding the provisions of §§ 68.155 to 68.190, the RMP shall exclude classified information. Subject to appropriate procedures to protect such information from public disclosure, classified data or information excluded from the RMP may be made available in a classified annex to the RMP for review by Federal and state representatives who have received the appropriate security clearances.
- (f) Procedures for asserting that information submitted in the RMP is entitled to protection as confidential business information are set forth in §§ 68.151 and 68.152.

[61 FR 31726, June 20, 1996, as amended at 64 FR 979, Jan. 6, 1999; 69 FR 18831, Apr. 9, 2004]

### § 68.151 Assertion of claims of confidential business information.

- (a) Except as provided in paragraph (b) of this section, an owner or operator of a stationary source required to report or otherwise provide information under this part may make a claim of confidential business information for any such information that meets the criteria set forth in 40 CFR 2.301.
- (b) Notwithstanding the provisions of 40 CFR part 2, an owner or operator of a stationary source subject to this part may not claim as confidential business information the following information:
  - (1) Registration data required by § 68.160(b)(1) through (6), (8), (10) through (13), and (21), and NAICS code and Program level of the process set forth in § 68.160(b)(7);
  - (2) Offsite consequence analysis data required by § 68.165(b)(4), (b)(9), (b)(10), (b)(11), and (b)(12).
  - (3) Accident history data required by § 68.168;
  - (4) Prevention program data required by § 68.170(b), (d), (e)(1), (f) through (k);

- (5) Prevention program data required by § 68.175(b), (d), (e)(1), (f) through (p); and
- (6) Emergency response program data required by § 68.180.
- (c) Notwithstanding the procedures specified in 40 CFR part 2, an owner or operator asserting a claim of CBI with respect to information contained in its RMP, shall submit to EPA at the time it submits the RMP the following:
  - (1) The information claimed confidential, provided in a format to be specified by EPA;
  - (2) A sanitized (redacted) copy of the RMP, with the notation "CBI" substituted for the information claimed confidential, except that a generic category or class name shall be substituted for any chemical name or identity claimed confidential; and
  - (3) The document or documents substantiating each claim of confidential business information, as described in § 68.152.

[64 FR 979, Jan. 6, 1999, as amended at 84 FR 69915, Dec. 10, 2019]

### § 68.152 Substantiating claims of confidential business information.

- (a) An owner or operator claiming that information is confidential business information must substantiate that claim by providing documentation that demonstrates that the claim meets the substantive criteria set forth in 40 CFR 2.301.
- (b) Information that is submitted as part of the substantiation may be claimed confidential by marking it as confidential business information. Information not so marked will be treated as public and may be disclosed without notice to the submitter. If information that is submitted as part of the substantiation is claimed confidential, the owner or operator must provide a sanitized and unsanitized version of the substantiation.
- (c) The owner, operator, or senior official with management responsibility of the stationary source shall sign a certification that the signer has personally examined the information submitted and that based on inquiry of the persons who compiled the information, the information is true, accurate, and complete, and that those portions of the substantiation claimed as confidential business information would, if disclosed, reveal trade secrets or other confidential business information.

[64 FR 980, Jan. 6, 1999]

### § 68.155 Executive summary.

The owner or operator shall provide in the RMP an executive summary that includes a brief description of the following elements:

- (a) The accidental release prevention and emergency response policies at the stationary source;
- (b) The stationary source and regulated substances handled;
- (c) The general accidental release prevention program and chemical-specific prevention steps;
- (d) The five-year accident history;
- (e) The emergency response program; and

- (f) Planned changes to improve safety.

[61 FR 31726, June 20, 1996, as amended at 69 FR 18831, Apr. 9, 2004]

## § 68.160 Registration.

- (a) The owner or operator shall complete a single registration form and include it in the RMP. The form shall cover all regulated substances handled in covered processes.
- (b) The registration shall include the following data:
  - (1) Stationary source name, street, city, county, state, zip code, latitude and longitude, method for obtaining latitude and longitude, and description of location that latitude and longitude represent;
  - (2) The stationary source Dun and Bradstreet number;
  - (3) Name and Dun and Bradstreet number of the corporate parent company;
  - (4) The name, telephone number, and mailing address of the owner or operator;
  - (5) The name and title of the person or position with overall responsibility for RMP elements and implementation, and (optional) the e-mail address for that person or position;
  - (6) The name, title, telephone number, 24-hour telephone number, and, as of June 21, 2004, the e-mail address (if an e-mail address exists) of the emergency contact;
  - (7) For each covered process, the name and CAS number of each regulated substance held above the threshold quantity in the process, the maximum quantity of each regulated substance or mixture in the process (in pounds) to two significant digits, the five- or six-digit NAICS code that most closely corresponds to the process, and the Program level of the process;
  - (8) The stationary source EPA identifier;
  - (9) The number of full-time employees at the stationary source;
  - (10) Whether the stationary source is subject to 29 CFR 1910.119;
  - (11) Whether the stationary source is subject to 40 CFR part 355;
  - (12) If the stationary source has a CAA Title V operating permit, the permit number; and
  - (13) The date of the last safety inspection of the stationary source by a Federal, state, or local government agency and the identity of the inspecting entity.
  - (14) As of June 21, 2004, the name, the mailing address, and the telephone number of the contractor who prepared the RMP (if any);
  - (15) Source or Parent Company E-Mail Address (Optional);
  - (16) Source Homepage address (Optional)
  - (17) Phone number at the source for public inquiries (Optional);
  - (18) Local Emergency Planning Committee (Optional);
  - (19) OSHA Voluntary Protection Program status (Optional);

- (20) As of June 21, 2004, the type of and reason for any changes being made to a previously submitted RMP; the types of changes to RMP are categorized as follows:
- (i) Updates and re-submissions required under § 68.190(b);
  - (ii) Corrections under § 68.195 or for purposes of correcting minor clerical errors, updating administrative information, providing missing data elements or reflecting facility ownership changes, and which do not require an update and re-submission as specified in § 68.190(b);
  - (iii) De-registrations required under § 68.190(c); and
  - (iv) Withdrawals of an RMP for any facility that was erroneously considered subject to this part 68.
- (21) Whether a public meeting has been held following an RMP reportable accident, pursuant to § 68.210(b).

[61 FR 31726, June 20, 1996, as amended at 64 FR 980, Jan. 6, 1999; 69 FR 18831, Apr. 9, 2004; 82 FR 4703, Jan. 13, 2017; 84 FR 69915, Dec. 19, 2019]

### § 68.165 Offsite consequence analysis.

- (a) The owner or operator shall submit in the RMP information:
- (1) One worst-case release scenario for each Program 1 process; and
  - (2) For Program 2 and 3 processes, one worst-case release scenario to represent all regulated toxic substances held above the threshold quantity and one worst-case release scenario to represent all regulated flammable substances held above the threshold quantity. If additional worst-case scenarios for toxics or flammables are required by § 68.25(a)(2)(iii), the owner or operator shall submit the same information on the additional scenario(s). The owner or operator of Program 2 and 3 processes shall also submit information on one alternative release scenario for each regulated toxic substance held above the threshold quantity and one alternative release scenario to represent all regulated flammable substances held above the threshold quantity.
- (b) The owner or operator shall submit the following data:
- (1) Chemical name;
  - (2) Percentage weight of the chemical in a liquid mixture (toxics only);
  - (3) Physical state (toxics only);
  - (4) Basis of results (give model name if used);
  - (5) Scenario (explosion, fire, toxic gas release, or liquid spill and evaporation);
  - (6) Quantity released in pounds;
  - (7) Release rate;
  - (8) Release duration;
  - (9) Wind speed and atmospheric stability class (toxics only);
  - (10) Topography (toxics only);
  - (11) Distance to endpoint;



- (12) Public and environmental receptors within the distance;
- (13) Passive mitigation considered; and
- (14) Active mitigation considered (alternative releases only);

[61 FR 31726, June 20, 1996, as amended at 64 FR 980, Jan. 6, 1999]

### § 68.168 Five-year accident history.

The owner or operator shall submit in the RMP the information provided in § 68.42(b) on each accident covered by § 68.42(a).

### § 68.170 Prevention program/Program 2.

- (a) For each Program 2 process, the owner or operator shall provide in the RMP the information indicated in paragraphs (b) through (k) of this section. If the same information applies to more than one covered process, the owner or operator may provide the information only once, but shall indicate to which processes the information applies.
- (b) The five- or six-digit NAICS code that most closely corresponds to the process.
- (c) The name(s) of the chemical(s) covered.
- (d) The date of the most recent review or revision of the safety information and a list of Federal or state regulations or industry-specific design codes and standards used to demonstrate compliance with the safety information requirement.
- (e) The date of completion of the most recent hazard review or update.
  - (1) The expected date of completion of any changes resulting from the hazard review;
  - (2) Major hazards identified;
  - (3) Process controls in use;
  - (4) Mitigation systems in use;
  - (5) Monitoring and detection systems in use; and
  - (6) Changes since the last hazard review.
- (f) The date of the most recent review or revision of operating procedures.
- (g) The date of the most recent review or revision of training programs;
  - (1) The type of training provided - classroom, classroom plus on the job, on the job; and
  - (2) The type of competency testing used.
- (h) The date of the most recent review or revision of maintenance procedures and the date of the most recent equipment inspection or test and the equipment inspected or tested.
- (i) The date of the most recent compliance audit, the expected date of completion of any changes resulting from the compliance audit.
- (j) The completion date of the most recent incident investigation and the expected date of completion of any changes resulting from the investigation.

- (k) The date of the most recent change that triggered a review or revision of safety information, the hazard review, operating or maintenance procedures, or training.

[61 FR 31726, June 20, 1996, as amended at 64 FR 980, Jan. 6, 1999; 82 FR 4704, Jan. 13, 2017; 84 FR 69915, Dec. 19, 2019]

### § 68.175 Prevention program/Program 3.

- (a) For each Program 3 process, the owner or operator shall provide the information indicated in paragraphs (b) through (p) of this section. If the same information applies to more than one covered process, the owner or operator may provide the information only once, but shall indicate to which processes the information applies.
- (b) The five- or six-digit NAICS code that most closely corresponds to the process.
- (c) The name(s) of the substance(s) covered.
- (d) The date on which the safety information was last reviewed or revised.
- (e) The date of completion of the most recent PHA or update and the technique used.
  - (1) The expected date of completion of any changes resulting from the PHA;
  - (2) Major hazards identified;
  - (3) Process controls in use;
  - (4) Mitigation systems in use;
  - (5) Monitoring and detection systems in use; and
  - (6) Changes since the last PHA.
- (f) The date of the most recent review or revision of operating procedures.
- (g) The date of the most recent review or revision of training programs;
  - (1) The type of training provided - classroom, classroom plus on the job, on the job; and
  - (2) The type of competency testing used.
- (h) The date of the most recent review or revision of maintenance procedures and the date of the most recent equipment inspection or test and the equipment inspected or tested.
- (i) The date of the most recent change that triggered management of change procedures and the date of the most recent review or revision of management of change procedures.
- (j) The date of the most recent pre-startup review.
- (k) The date of the most recent compliance audit and the expected date of completion of any changes resulting from the compliance audit.
- (l) The completion date of the most recent incident investigation and the expected date of completion of any changes resulting from the investigation.
- (m) The date of the most recent review or revision of employee participation plans;
- (n) The date of the most recent review or revision of hot work permit procedures;
- (o) The date of the most recent review or revision of contractor safety procedures; and

- (p) The date of the most recent evaluation of contractor safety performance.

[61 FR 31726, June 20, 1996, as amended at 64 FR 980, Jan. 6, 1999; 82 FR 4704, Jan. 13, 2017; 84 FR 69915, Dec. 19, 2019]

### § 68.180 Emergency response program and exercises.

- (a) The owner or operator shall provide in the RMP:
  - (1) Name, phone number and email address of local emergency planning and response organizations with which the stationary source last coordinated emergency response efforts, pursuant to § 68.10(g)(3) or § 68.93.
  - (2) The date of the most recent coordination with the local emergency response organizations, pursuant to § 68.93 and
  - (3) A list of Federal or state emergency plan requirements to which the stationary source is subject.
- (b) The owner or operator shall identify in the RMP whether the facility is a responding stationary source or a non-responding stationary source, pursuant to § 68.90.
  - (1) For non-responding stationary sources, the owner or operator shall identify:
    - (i) For stationary sources with any regulated toxic substance held in a process above the threshold quantity, whether the stationary source is included in the community emergency response plan developed under 42 U.S.C. 11003, pursuant to § 68.90(b)(1);
    - (ii) For stationary sources with only regulated flammable substances held in a process above the threshold quantity, the date of the most recent coordination with the local fire department, pursuant to § 68.90(b)(2);
    - (iii) What mechanisms are in place to notify the public and emergency responders when there is a need for emergency response; and
    - (iv) The date of the most recent notification exercise, as required in § 68.96(a).
  - (2) For responding stationary sources, the owner or operator shall identify:
    - (i) The date of the most recent review and update of the emergency response plan, pursuant to § 68.95(a)(4);
    - (ii) The date of the most recent notification exercise, as required in § 68.96(a);
    - (iii) The date of the most recent field exercise, as required in § 68.96(b)(1); and
    - (iv) The date of the most recent tabletop exercise, as required in § 68.96(b)(2).

[82 FR 4704, Jan. 13, 2017, as amended at 84 FR 69915, Dec. 19, 2019]

### § 68.185 Certification.

- (a) For Program 1 processes, the owner or operator shall submit in the RMP the certification statement provided in § 68.12(b)(4).
- (b) For all other covered processes, the owner or operator shall submit in the RMP a single certification that, to the best of the signer's knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete.

## § 68.190 Updates.

- (a) The owner or operator shall review and update the RMP as specified in paragraph (b) of this section and submit it in the method and format to the central point specified by EPA as of the date of submission.
- (b) The owner or operator of a stationary source shall revise and update the RMP submitted under § 68.150 as follows:
  - (1) At least once every five years from the date of its initial submission or most recent update required by paragraphs (b)(2) through (b)(7) of this section, whichever is later. For purposes of determining the date of initial submissions, RMPs submitted before June 21, 1999 are considered to have been submitted on that date.
  - (2) No later than three years after a newly regulated substance is first listed by EPA;
  - (3) No later than the date on which a new regulated substance is first present in an already covered process above a threshold quantity;
  - (4) No later than the date on which a regulated substance is first present above a threshold quantity in a new process;
  - (5) Within six months of a change that requires a revised PHA or hazard review;
  - (6) Within six months of a change that requires a revised offsite consequence analysis as provided in § 68.36; and
  - (7) Within six months of a change that alters the Program level that applied to any covered process.
- (c) If a stationary source is no longer subject to this part, the owner or operator shall submit a de-registration to EPA within six months indicating that the stationary source is no longer covered.

[61 FR 31726, June 20, 1996, as amended at 69 FR 18832, Apr. 9, 2004; 82 FR 4704, Jan. 13, 2017; 84 FR 69915, Dec. 19, 2019]

## § 68.195 Required corrections.

The owner or operator of a stationary source for which a RMP was submitted shall correct the RMP as follows:

- (a) New accident history information - For any accidental release meeting the five-year accident history reporting criteria of § 68.42 and occurring after April 9, 2004, the owner or operator shall submit the data required under §§ 68.168, 68.170(j), and 68.175(l) with respect to that accident within six months of the release or by the time the RMP is updated under § 68.190, whichever is earlier.
- (b) Emergency contact information - Beginning June 21, 2004, within one month of any change in the emergency contact information required under § 68.160(b)(6), the owner or operator shall submit a correction of that information.

[69 FR 18832, Apr. 9, 2004]

## Subpart H - Other Requirements

**Source:** 61 FR 31728, June 20, 1996, unless otherwise noted.

## § 68.200 Recordkeeping.

The owner or operator shall maintain records supporting the implementation of this part at the stationary source for five years, unless otherwise provided in subpart D of this part.

[82 FR 4704, Jan. 13, 2017]

## § 68.210 Availability of information to the public.

- (a) **RMP availability.** The RMP required under subpart G of this part shall be available to the public under 42 U.S.C. 7414(c) and 40 CFR part 1400.
- (b) **Public meetings.** The owner or operator of a stationary source shall hold a public meeting to provide information required under § 68.42(b), no later than 90 days after any RMP reportable accident at the stationary source with any known offsite impact specified in § 68.42(a).
- (c) **Classified and restricted information.** The disclosure of information classified or restricted by the Department of Defense or other Federal agencies or contractors of such agencies shall be controlled by applicable laws, regulations, or executive orders concerning the release of that classified or restricted information.

[82 FR 4704, Jan. 13, 2017, as amended at 84 FR 69916, Dec. 19, 2019]

## § 68.215 Permit content and air permitting authority or designated agency requirements.

- (a) These requirements apply to any stationary source subject to this part 68 and parts 70 or 71 of this chapter. The 40 CFR part 70 or part 71 permit for the stationary source shall contain:
  - (1) A statement listing this part as an applicable requirement;
  - (2) Conditions that require the source owner or operator to submit:
    - (i) A compliance schedule for meeting the requirements of this part by the dates provided in §§ 68.10(a) through (f) and 68.96(a) and (b)(2)(i), or;
    - (ii) As part of the compliance certification submitted under 40 CFR 70.6(c)(5), a certification statement that the source is in compliance with all requirements of this part, including the registration and submission of the RMP.
- (b) The owner or operator shall submit any additional relevant information requested by the air permitting authority or designated agency.
- (c) For 40 CFR part 70 or part 71 permits issued prior to the deadline for registering and submitting the RMP and which do not contain permit conditions described in paragraph (a) of this section, the owner or operator or air permitting authority shall initiate permit revision or reopening according to the procedures of 40 CFR 70.7 or 71.7 to incorporate the terms and conditions consistent with paragraph (a) of this section.
- (d) The state may delegate the authority to implement and enforce the requirements of paragraph (e) of this section to a state or local agency or agencies other than the air permitting authority. An up-to-date copy of any delegation instrument shall be maintained by the air permitting authority. The state may enter a written agreement with the Administrator under which EPA will implement and enforce the requirements of paragraph (e) of this section.

- (e) The air permitting authority or the agency designated by delegation or agreement under paragraph (d) of this section shall, at a minimum:
  - (1) Verify that the source owner or operator has registered and submitted an RMP or a revised plan when required by this part;
  - (2) Verify that the source owner or operator has submitted a source certification or in its absence has submitted a compliance schedule consistent with paragraph (a)(2) of this section;
  - (3) For some or all of the sources subject to this section, use one or more mechanisms such as, but not limited to, a completeness check, source audits, record reviews, or facility inspections to ensure that permitted sources are in compliance with the requirements of this part; and
  - (4) Initiate enforcement action based on paragraphs (e)(1) and (e)(2) of this section as appropriate.

[61 FR 31728, June 20, 1996, as amended at 84 FR 69916, Dec. 19, 2019]

### § 68.220 Audits.

- (a) In addition to inspections for the purpose of regulatory development and enforcement of the Act, the implementing agency shall periodically audit RMPs submitted under subpart G of this part to review the adequacy of such RMPs and require revisions of RMPs when necessary to ensure compliance with subpart G of this part.
- (b) The implementing agency shall select stationary sources for audits based on any of the following criteria:
  - (1) Accident history of the stationary source;
  - (2) Accident history of other stationary sources in the same industry;
  - (3) Quantity of regulated substances present at the stationary source;
  - (4) Location of the stationary source and its proximity to the public and environmental receptors;
  - (5) The presence of specific regulated substances;
  - (6) The hazards identified in the RMP; and
  - (7) A plan providing for neutral, random oversight.
- (c) Exemption from audits. A stationary source with a Star or Merit ranking under OSHA's voluntary protection program shall be exempt from audits under paragraph (b)(2) and (b)(7) of this section.
- (d) The implementing agency shall have access to the stationary source, supporting documentation, and any area where an accidental release could occur.
- (e) Based on the audit, the implementing agency may issue the owner or operator of a stationary source a written preliminary determination of necessary revisions to the stationary source's RMP to ensure that the RMP meets the criteria of subpart G of this part. The preliminary determination shall include an explanation for the basis for the revisions, reflecting industry standards and guidelines (such as AIChE/CCPS guidelines and ASME and API standards) to the extent that such standards and guidelines are applicable, and shall include a timetable for their implementation.
- (f) *Written response to a preliminary determination.*

- (1) The owner or operator shall respond in writing to a preliminary determination made in accordance with paragraph (e) of this section. The response shall state the owner or operator will implement the revisions contained in the preliminary determination in accordance with the timetable included in the preliminary determination or shall state that the owner or operator rejects the revisions in whole or in part. For each rejected revision, the owner or operator shall explain the basis for rejecting such revision. Such explanation may include substitute revisions.
- (2) The written response under paragraph (f)(1) of this section shall be received by the implementing agency within 90 days of the issue of the preliminary determination or a shorter period of time as the implementing agency specifies in the preliminary determination as necessary to protect public health and the environment. Prior to the written response being due and upon written request from the owner or operator, the implementing agency may provide in writing additional time for the response to be received.
- (g) After providing the owner or operator an opportunity to respond under paragraph (f) of this section, the implementing agency may issue the owner or operator a written final determination of necessary revisions to the stationary source's RMP. The final determination may adopt or modify the revisions contained in the preliminary determination under paragraph (e) of this section or may adopt or modify the substitute revisions provided in the response under paragraph (f) of this section. A final determination that adopts a revision rejected by the owner or operator shall include an explanation of the basis for the revision. A final determination that fails to adopt a substitute revision provided under paragraph (f) of this section shall include an explanation of the basis for finding such substitute revision unreasonable.
- (h) Thirty days after completion of the actions detailed in the implementation schedule set in the final determination under paragraph (g) of this section, the owner or operator shall be in violation of subpart G of this part and this section unless the owner or operator revises the RMP prepared under subpart G of this part as required by the final determination, and submits the revised RMP as required under § 68.150.
- (i) The public shall have access to the preliminary determinations, responses, and final determinations under this section in a manner consistent with § 68.210.
- (j) Nothing in this section shall preclude, limit, or interfere in any way with the authority of EPA or the state to exercise its enforcement, investigatory, and information gathering authorities concerning this part under the Act.

## Appendix A to Part 68 - Table of Toxic Endpoints

[As defined in § 68.22 of this part]

CAS No.	Chemical name	Toxic endpoint (mg/L)
107-02-8	Acrolein [2-Propenal]	0.0011
107-13-1	Acrylonitrile [2-Propenenitrile]	0.076
814-68-6	Acrylyl chloride [2-Propenoyl chloride]	0.00090
107-18-6	Allyl alcohol [2-Propen-1-ol]	0.036
107-11-9	Allylamine [2-Propen-1-amine]	0.0032
7664-41-7	Ammonia (anhydrous)	0.14
7664-41-7	Ammonia (conc 20% or greater)	0.14
7784-34-1	Arsenous trichloride	0.010

CAS No.	Chemical name	Toxic endpoint (mg/L)
7784-42-1	Arsine	0.0019
10294-34-5	Boron trichloride [Borane, trichloro-]	0.010
7637-07-2	Boron trifluoride [Borane, trifluoro-]	0.028
353-42-4	Boron trifluoride compound with methyl ether (1:1) [Boron, trifluoro[oxybis[methane]]-, T-4	0.023
7726-95-6	Bromine	0.0065
75-15-0	Carbon disulfide	0.16
7782-50-5	Chlorine	0.0087
10049-04-4	Chlorine dioxide [Chlorine oxide (ClO <sub>2</sub> )]	0.0028
67-66-3	Chloroform [Methane, trichloro-]	0.49
542-88-1	Chloromethyl ether [Methane, oxybis[chloro-]	0.00025
107-30-2	Chloromethyl methyl ether [Methane, chloromethoxy-]	0.0018
4170-30-3	Crotonaldehyde [2-Butenal]	0.029
123-73-9	Crotonaldehyde, (E)-, [2-Butenal, (E)-]	0.029
506-77-4	Cyanogen chloride	0.030
108-91-8	Cyclohexylamine [Cyclohexanamine]	0.16
19287-45-7	Diborane	0.0011
75-78-5	Dimethyldichlorosilane [Silane, dichlorodimethyl-]	0.026
57-14-7	1,1-Dimethylhydrazine [Hydrazine, 1,1-dimethyl-]	0.012
106-89-8	Epichlorohydrin [Oxirane, (chloromethyl)-]	0.076
107-15-3	Ethylenediamine [1,2-Ethanediamine]	0.49
151-56-4	Ethyleneimine [Aziridine]	0.018
75-21-8	Ethylene oxide [Oxirane]	0.090
7782-41-4	Fluorine	0.0039
50-00-0	Formaldehyde (solution)	0.012
110-00-9	Furan	0.0012
302-01-2	Hydrazine	0.011
7647-01-0	Hydrochloric acid (conc 37% or greater)	0.030
74-90-8	Hydrocyanic acid	0.011
7647-01-0	Hydrogen chloride (anhydrous) [Hydrochloric acid]	0.030
7664-39-3	Hydrogen fluoride/Hydrofluoric acid (conc 50% or greater) [Hydrofluoric acid]	0.016
7783-07-5	Hydrogen selenide	0.00066
7783-06-4	Hydrogen sulfide	0.042
13463-40-6	Iron, pentacarbonyl- [Iron carbonyl (Fe(CO) <sub>5</sub> ), (TB-5-11)-]	0.00044
78-82-0	Isobutyronitrile [Propanenitrile, 2-methyl-]	0.14
108-23-6	Isopropyl chloroformate [Carbonochloride acid, 1-methylethyl ester]	0.10
126-98-7	Methacrylonitrile [2-Propenenitrile, 2-methyl-]	0.0027
74-87-3	Methyl chloride [Methane, chloro-]	0.82
79-22-1	Methyl chloroformate [Carbonochloridic acid, methylester]	0.0019



CAS No.	Chemical name	Toxic endpoint (mg/L)
60-34-4	Methyl hydrazine [Hydrazine, methyl-]	0.0094
624-83-9	Methyl isocyanate [Methane, isocyanato-]	0.0012
74-93-1	Methyl mercaptan [Methanethiol]	0.049
556-64-9	Methyl thiocyanate [Thiocyanic acid, methyl ester]	0.085
75-79-6	Methyltrichlorosilane [Silane, trichloromethyl-]	0.018
13463-39-3	Nickel carbonyl	0.00067
7697-37-2	Nitric acid (conc 80% or greater)	0.026
10102-43-9	Nitric oxide [Nitrogen oxide (NO)]	0.031
8014-95-7	Oleum (Fuming Sulfuric acid) [Sulfuric acid, mixture with sulfur trioxide]	0.010
79-21-0	Peracetic acid [Ethaneperoxoic acid]	0.0045
594-42-3	Perchloromethylmercaptan [Methanesulfenyl chloride, trichloro-]	0.0076
75-44-5	Phosgene [Carbonic dichloride]	0.00081
7803-51-2	Phosphine	0.0035
10025-87-3	Phosphorus oxychloride [Phosphoryl chloride]	0.0030
7719-12-2	Phosphorus trichloride [Phosphorous trichloride]	0.028
110-89-4	Piperidine	0.022
107-12-0	Propionitrile [Propanenitrile]	0.0037
109-61-5	Propyl chloroformate [Carbonochloridic acid, propylester]	0.010
75-55-8	Propyleneimine [Aziridine, 2-methyl-]	0.12
75-56-9	Propylene oxide [Oxirane, methyl-]	0.59
7446-09-5	Sulfur dioxide (anhydrous)	0.0078
7783-60-0	Sulfur tetrafluoride [Sulfur fluoride (SF <sub>4</sub> ), (T-4)-]	0.0092
7446-11-9	Sulfur trioxide	0.010
75-74-1	Tetramethyllead [Plumbane, tetramethyl-]	0.0040
509-14-8	Tetranitromethane [Methane, tetranitro-]	0.0040
7750-45-0	Titanium tetrachloride [Titanium chloride (TiCl <sub>4</sub> ) (T-4)-]	0.020
584-84-9	Toluene 2,4-diisocyanate [Benzene, 2,4-diisocyanato-1-methyl-]	0.0070
91-08-7	Toluene 2,6-diisocyanate [Benzene, 1,3-diisocyanato-2-methyl-]	0.0070
26471-62-5	Toluene diisocyanate (unspecified isomer) [Benzene, 1,3-diisocyanatomethyl-]	0.0070
75-77-4	Trimethylchlorosilane [Silane, chlorotrimethyl-]	0.050
108-05-4	Vinyl acetate monomer [Acetic acid ethenyl ester]	0.26

[61 FR 31729, June 20, 1996, as amended at 62 FR 45132, Aug. 25, 1997]