ADEQ

A R K A N S A S
Department of Environmental Quality

FEB 1 1 2013

Wayne Turney, Environmental Manager
Nucor Corporation (Nucor Steel, Arkansas)
P.O. Box 30
Armorel, AR 72310

Dear Mr. Turney:

The enclosed Permit No. 1139-AOP-R17 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 11/26/2012.

After considering the facts and requirements of A.C.A. §8-4-101 et seq., and implementing regulations, I have determined that Permit No. 1139-AOP-R17 for the construction, operation and maintenance of an air pollution control system for Nucor Corporation (Nucor Steel, Arkansas) to be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, Regulation 8, within thirty (30) days after service of this decision.

The applicant or permittee and any other person submitting public comments on the record may request an adjudicatory hearing and Commission review of the final permitting decisions as provided under Chapter Six of Regulation No. 8, Administrative Procedures, Arkansas Pollution Control and Ecology Commission. Such a request shall be in the form and manner required by Regulation 8.603, including filing a written Request for Hearing with the APC&E Commission Secretary at 101 E. Capitol Ave., Suite 205, Little Rock, Arkansas 72201. If you have any questions about filing the request, please call the Commission at 501-682-7890.

Sincerely,

Mike Bates
Chief, Air Division

ADEQ
OPERATING
AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation 26:

Permit No. : 1139-AOP-R17

IS ISSUED TO:

Nucor Corporation (Nucor Steel, Arkansas)
7301 East County Road 142
Blytheville, AR 72315
Mississippi County
AFIN: 47-00233

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:

June 10, 2011 AND June 9, 2016

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

Signed:

Mike Bates
Chief, Air Division

FEB 1 1 2013

Date

Nucor Corporation (Nucor Steel, Arkansas)
Permit #: 1139-AOP-R17
AFIN: 47-00233

Table of Contents

Nucor Corporation (Nucor Steel, Arkansas)
Permit #: 1139-AOP-R17
AFIN: 47-00233

List of Acronyms and Abbreviations

A.C.A.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
CFR	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO_x	Nitrogen Oxide
PM	Particulate Matter
PM_{10}	Particulate Matter Smaller Than Ten Microns
SNAP	Significant New Alternatives Program (SNAP)
SO_2	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

SECTION I: FACILITY INFORMATION

PERMITTEE:	Nucor Corporation (Nucor Steel, Arkansas)
AFIN:	47-00233
PERMIT NUMBER:	1139-AOP-R17
FACILITY ADDRESS:	7301 East County Road 142 Blytheville, AR 72315
MAILING ADDRESS:	P.O. Box 30 Armorel, AR 72310
COUNTY:	Mississippi County
CONTACT NAME:	Wayne Turney
CONTACT POSITION:	Environmental Manager
TELEPHONE NUMBER:	870-762-2100
REVIEWING ENGINEER:	Shawn Hutchings
UTM North South (Y):	Zone 16: 3981209.43 m
UTM East West (X):	Zone 16: 254323.90 m

SECTION II: INTRODUCTION

Summary of Permit Activity

Nucor Steel (Nucor), a Division of Nucor Corporation, owns and operates a scrap steel mill in Hickman, Mississippi County, Arkansas (approximately 10 miles east of Blytheville). Nucor produces flat-rolled steel primarily from steel scrap and scrap substitutes using the electric arc furnace (EAF) process.

In this modification Nucor is installing a new bin vent filter system on the carbon silos, SN-29, and replacing the slag processing equipment, SN-18 and 23, due to a new contractor.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective June 18, 2010
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective November 18, 2012
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective November 18, 2012
40 CFR 52.21, *Prevention of Significant Deterioration*
40 CFR Part 60, Subpart A General Provision
40 CFR Part 60, Subpart Dc - *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*
40 CFR Part 60, Subpart AAa - *Standards of Performance for Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983*
40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 CFR Part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustions Engines
40 CFR Part 63 Subpart YYYYY, National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steel Making Facilities.
40 CFR Part 63 Subpart CCCCCC, National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities.

This facility is classified as a minor source of greenhouse gas emissions because it has the potential to emit less than 100,000 tpy CO_2e or less than 100 tpy mass basis combined greenhouse gases.

Emission Summary

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

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	163.5	635.0
		PM_{10}	160.5	621.5
		SO_2	243.5	790.2
		VOC	145.3	263.8
		CO	1360.4	5444.4
		NO_x	858.2	1645.8
		Lead	0.82	3.59
HAPs		Arsenic*	0.01	0.05
		Cadmium*	0.02	0.09
		Chromium*	0.08	0.35
		Manganese*	1.08	4.73
		Nickel*	0.02	0.09
		Benzene*	0.55	0.06
		Toluene*	0.79	0.06
		Hexane*	1.43	0.09
		2, 2, 4 – Trimethylpentane*	0.29	0.06
		HCl	0.2	0.8
01	Melt Shop Baghouse	PM (filterable + condensable)	106.9	468.2
		PM_{10} (filterable + condensable)	106.9	468.2
		PM (filterable)	37.0	162.1
		PM_{10}(filterable)	37.0	162.1
		SO_2	176.8	774.5
		VOC	53.8	235.5
		CO	1181.5	5174.6
		NO_x	304.0	1331.8
		Lead	0.82	3.59
		Arsenic	0.01	0.05
		Cadmium	0.02	0.09
		Chromium	0.08	0.35
		Manganese	1.08	4.73
		Nickel	0.02	0.09

Nucor Corporation (Nucor Steel, Arkansas)
Permit #: 1139-AOP-R17
AFIN: 47-00233

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
02	#1 Tunnel Furnace, Section A	PM	0.7	3.0
		PM_{10}	0.7	3.0
		SO_2	0.1	0.3
		VOC	0.3	1.1
		CO	6.3	27.6
		NO_x	16.2	71.0
03	#1 Tunnel Furnace, Section B	PM	0.5	2.0
		PM_{10}	0.5	2.0
		SO_2	0.1	0.2
		VOC	0.2	0.8
		CO	4.2	18.4
		NO_x	10.8	47.3
04	#2 Tunnel Furnace	PM	0.7	3.0
		PM_{10}	0.7	3.0
		SO_2	0.1	0.3
		VOC	0.3	1.1
		CO	6.3	27.6
		NO_x	16.2	71.0
05	Roof Monitor #5 (Shuttle Furnaces)	PM	0.1	0.4
		PM_{10}	0.1	0.4
		SO_2	0.1	0.1
		VOC	0.1	0.2
		CO	0.8	3.5
		NO_x	1.9	8.4
11	Tundish Dryer	PM	0.1	0.2
		PM_{10}	0.1	0.2
		SO_2	0.1	0.1
		VOC	0.1	0.2
		CO	0.5	2.3
		NO_x	0.6	2.7
18	Slag Pit Loadout	PM	1.4	5.8
		PM_{10}	0.8	2.9
23	Slag Handling	PM	4.1	17.7
		PM_{10}	1.8	7.8
27	Pelletized Lime Handling	PM	0.1	0.5
		PM_{10}	0.1	0.5
29	Coke Handling	PM	0.1	0.3
		PM_{10}	0.1	0.3

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
37	Lime Dust Collector (North)	PM PM_{10}	0.2 0.2	0.9 0.9
38	Lime Dust Collector (South)	PM PM_{10}	0.2 0.2	0.9 0.9
42	Storage Dome	PM PM_{10}	0.1 0.1	0.5 0.5
43-46	Charge Carbon (Coke) Silos	PM PM_{10}	0.1 0.1	0.5 0.5
47	Cooling Tower	PM PM_{10}	0.5 0.5	1.5 1.5
48	Cooling Tower	PM PM_{10}	0.1 0.1	0.2 0.2
49	Cooling Tower	PM PM_{10}	0.2 0.2	0.6 0.6
50	Cooling Tower	PM PM_{10}	0.4 0.4	1.2 1.2
51	Pickle Line	PM PM_{10} HCl	0.2 0.2 0.2	0.5 0.5 0.8
52	Pickle Line Boilers (3 boilers at 12.6 MMBtu/hr ea.)	PM PM_{10} SO_2 VOC CO NO_x	0.3 0.3 0.1 0.2 3.2 2.9	1.3 1.3 0.1 0.9 13.9 12.4
53	Cold Reversing Mill/Temper Mill	PM PM_{10}	1.7 1.7	7.5 7.5
54	Galvanizing Line (78.3 MMBtu/hr)	PM PM_{10} SO_2 VOC CO NO_x	0.6 0.6 0.1 0.5 6.6 2.8	2.6 2.6 0.2 1.9 28.8 12.0
55	Scale Breaker	PM PM_{10}	0.3 0.3	1.2 1.2

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
56	Entry Scale	PM PM_{10}	0.2 0.2	0.6 0.6
57	Chromate Spray	PM PM_{10}	0.1 0.1	0.2 0.2
58	Alkali Wash Burners (Two at 3.5 MMBtu/hr) (One at 2 MMBtu/hr)	PM PM_{10} SO_2 VOC CO NO_x	0.2 0.2 0.1 0.1 1.2 0.9	0.5 0.5 0.1 0.4 5.3 3.9
59	Galvanizing Line Dryer (2.5 MMBtu/hr)	PM PM_{10} SO_2 VOC CO NO_x	0.1 0.1 0.1 0.1 0.2 0.2	0.1 0.1 0.1 0.1 0.9 0.7
60	Chromate Spray Dryer (1.5 MMBtu/hr)	PM PM_{10} SO_2 VOC CO NO_x	0.1 0.1 0.1 0.1 0.2 0.1	0.1 0.1 0.1 0.1 0.6 0.5
61	Annealing Furnaces (8 @ 4.8 MMBtu/hr each)	PM PM_{10} SO_2 VOC CO NO_x	0.3 0.3 0.1 0.3 3.3 3.9	1.3 1.3 0.1 1.0 14.1 16.8
62	Hydrated Lime Silo	PM PM_{10}	0.1 0.1	0.1 0.1
63	Alkali Wash Exhaust	PM PM_{10}	0.2 0.2	0.7 0.7
64	Wastewater Lime Storage Silo	PM PM_{10}	0.1 0.1	0.5 0.5

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
65	Steel Coil Cutting	PM	0.5	2.0
		PM_{10}	0.5	2.0
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.2	0.9
		NO_x	0.3	1.1
67	Railcar Loading Station	PM	0.3	1.3
		PM_{10}	0.3	1.3
68	Truck Conveyor Baghouse	PM	0.1	0.3
		PM_{10}	0.1	0.3
69	Truck Conveyor Baghouse	PM	0.1	0.3
		PM_{10}	0.1	0.3
70	Cooling Tower	PM	0.1	0.3
		PM_{10}	0.1	0.3
71	Rice Hull Storage Silo	PM	0.1	0.5
		PM_{10}	0.1	0.5
72	Railcar Truck Unloading Baghouse	PM	1.8	7.9
		PM_{10}	1.8	7.9
74	Pickle Line Dryer	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.2	0.8
		NO_x	0.2	0.6
75	Roof Flux Feed Bin Vent BC4	PM	0.1	0.3
		PM_{10}	0.1	0.3
76	Roof Flux Feed Bin Vent BC5	PM	0.1	0.3
		PM_{10}	0.1	0.3
77	Roof Flux Feed Bin Vent BC6	PM	0.1	0.3
		PM_{10}	0.1	0.3
78	Day Bin Baghouse	PM	0.2	0.9
		PM_{10}	0.2	0.9
78A	Day Bin Baghouse	PM	0.2	1.0
		PM_{10}	0.2	1.0

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
SN-94	Vacuum Degasser	PM	0.5	2.0
		PM_{10}	0.5	2.0
		SO_2	1.5	6.6
		VOC	1.5	6.6
		CO	22.5	98.6
		NO_x	1.5	6.6
SN-95	Vacuum Degasser Boiler	PM	0.4	1.7
		PM_{10}	0.4	1.7
		SO_2	0.1	0.2
		VOC	0.2	0.6
		CO	3.1	13.5
		NO_x	1.8	7.7
SN-96	Emergency Generator – Electrical Substation	PM	0.7	0.2
		PM_{10}	0.7	0.2
		SO_2	0.6	0.2
		VOC	0.7	0.2
		CO	1.9	0.5
		NO_x	8.9	2.2
SN-97	Emergency Generator – Water System 1	PM	2.0	0.2
		PM_{10}	2.0	0.2
		SO_2	9.3	1.0
		VOC	2.0	0.2
		CO	15.7	1.6
		NO_x	68.4	6.9
SN-98	Emergency Generator – Water System 1	PM	2.0	0.2
		PM_{10}	2.0	0.2
		SO_2	9.3	1.0
		VOC	2.0	0.2
		CO	15.7	1.6
		NO_x	68.4	6.9
SN-99	Alloy Carousel	PM	0.1	0.3
		PM_{10}	0.1	0.3
SN-100	Emergency Generator – Cold Mill Treatment	PM	0.9	0.1
		PM_{10}	0.9	0.1
		SO_2	0.9	0.1
		VOC	1.0	0.1
		CO	2.7	0.3
		NO_x	12.4	1.3

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
SN-101	Emergency Generator - Water System 1 North #3	PM	1.8	0.2
		PM_{10}	1.8	0.2
		SO_2	8.0	0.8
		VOC	1.8	0.2
		CO	13.5	1.4
		NO_x	58.8	5.9
SN-102	Emergency Generator - Water System 1 South #4	PM	2.4	0.3
		PM_{10}	2.4	0.3
		SO_2	10.9	1.1
		VOC	2.4	0.3
		CO	18.4	1.9
		NO_x	80.5	8.0
SN-103	Emergency Generator – Megawater #1 Water System 1	PM	2.0	0.2
		PM_{10}	2.0	0.2
		SO_2	8.0	0.8
		VOC	1.8	0.2
		CO	13.5	1.4
		NO_x	58.8	5.9
SN-104	Emergency Generator – Megawater #2	PM	2.4	0.3
		PM_{10}	2.4	0.3
		SO_2	10.9	1.1
		VOC	2.4	0.3
		CO	18.4	1.9
		NO_x	80.5	8.0
SN-106	Emergency Generator Cold Mill	PM	0.8	0.1
		PM_{10}	0.8	0.1
		SO_2	3.5	0.1
		VOC	0.8	0.1
		CO	5.9	0.6
		NO_x	25.8	2.6
SN-107	Emergency Generator - Cold Mill East	PM	0.5	0.1
		PM_{10}	0.5	0.1
		SO_2	0.5	0.1
		VOC	0.5	0.1
		CO	1.4	0.2
		NO_x	6.3	0.7

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
SN-108	Emergency Generator - Cold Mill West	PM	0.5	0.1
		PM_{10}	0.5	0.1
		SO_2	0.5	0.1
		VOC	0.5	0.1
		CO	1.4	0.2
		NO_x	6.3	0.7
SN-109	Emergency Generator – Galvanizing Line	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	2.9	0.3
		NO_x	1.7	0.2
SN-110	Emergency Generator – IT Administration	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	4.8	0.5
		NO_x	2.9	0.3
SN-111	Emergency Generator – Radio Tower	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.6	0.1
		NO_x	0.4	0.1
SN-112	Emergency Generator – Radio Tower Backup	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	0.1
		NO_x	0.2	0.1
SN-113	Emergency Generator - Cold Mill Pump East	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	0.1
		NO_x	1.2	0.2

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
SN-114	Emergency Generator - Cold Mill Pump Water Treatment	PM	0.9	0.1
		PM_{10}	0.9	0.1
		SO_2	0.9	0.1
		VOC	1.0	0.1
		CO	2.7	0.3
		NO_x	12.4	1.3
SN-115	Gasoline Tank – Contractor Village	VOC	5.2	0.4
		Benzene	0.07	0.01
		Toluene	0.10	0.01
		Hexane	0.18	0.02
		2, 2, 4 – Trimethylpentane	0.04	0.01
SN-116	Gasoline Tank – Cold Mill Fuel Island	VOC	6.1	0.3
		Benzene	0.08	0.01
		Toluene	0.11	0.01
		Hexane	0.20	0.01
		2, 2, 4 – Trimethylpentane	0.04	0.01
SN-117	Gasoline Tank – Contractor Village	VOC	6.2	0.3
		Benzene	0.08	0.01
		Toluene	0.11	0.01
		Hexane	0.20	0.01
		2, 2, 4 – Trimethylpentane	0.04	0.01
SN-118	Gasoline Tank – Contractor Village	VOC	6.9	0.3
		Benzene	0.09	0.01
		Toluene	0.13	0.01
		Hexane	0.24	0.01
		2, 2, 4 – Trimethylpentane	0.05	0.01
SN-119	Gasoline Tank – Harsco Slag Processor	VOC	7.0	0.4
		Benzene	0.09	0.01
		Toluene	0.14	0.01
		Hexane	0.24	0.02
		2, 2, 4 – Trimethylpentane	0.05	0.01
SN-120	Gasoline Tank – Main Fuel Island	VOC	11.0	0.5
		Benzene	0.14	0.01
		Toluene	0.20	0.01
		Hexane	0.37	0.02
		2, 2, 4 – Trimethylpentane	0.07	0.01
SN-121	Unpaved Roadways	PM_{10}	16.5	72.3
		PM	16.5	72.3

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
SN-122	Paved Roadways	PM_{10} PM	3.1 3.1	13.3 13.3
SN-123	Rust Preventative Coating	VOC	27.5	8.3
SN-124	Truck Dump/6 Bin Alloy System and VTD Wire Feed System	PM PM_{10}	0.4 0.4	1.7 1.7
SN-125	Contact Cooling Tower	PM PM_{10}	0.2 0.1	0.9 0.2
SN-126	Non-Contact Cooling Tower	PM PM_{10}	0.1 0.1	0.1 0.1

*HAPs included in the VOC or PM totals. Other HAPs are not included in any other totals unless specifically stated.
**Air Contaminants such as ammonia, acetone, and certain halogenated solvents are not VOCs or HAPs.

SECTION III: PERMIT HISTORY

Permit 1139-A

Air permit 1139-A was issued to this facility on May 14, 1991.

Permit 1139-AR-1

The permit was modified on August 12, 1992, to include changes due to revised design specifications, improved data, and to allow for potential mill expansion (air permit 1139-AR-1). This permit was issued under the *Prevention of Significant Deterioration* (PSD) regulations as found in 40 CFR 52.21.

Permit 1323-A

On July 22, 1992, Heckett Plant 49 was issued air permit 1323-A to operate the slag processing/metal reclaim operations under contract with Nucor. Heckett Plant was permitted to emit 10.84 tpy of PM/PM_{10}. Air permit #1323-A was rescinded upon issuance of air permit #1139-AR-3 on February 22, 1995.

Permit 1335-A

On September 8, 1992, Inorganic Recycling of Arkansas, Inc. (IRA) was permitted under air permit # 1335-A to operate the EAF dust processing facility. IRA was permitted to emit 180.69 tpy of PM_{10}, 162.94 tpy of SO_2, 87.6 tpy of CO, 7.01 tpy of PbO, 6.48 tpy of NO_x, 4.48 tpy of PM, and 0.088 tpy of HgO. Air permit #1335-A was rescinded upon issuance of air permit #1139-AR-3 on February 22, 1995. The IRA sources were assigned source numbers SN-30 and SN-36 and included in Nucor's permit. These sources were removed from Nucor's permit because this process was operated by IRA, which was a separate corporate entity that was not subject to Nucor's control.

Permit 1139-AR-2

On January 25, 1994, Nucor was issued air permit 1139-AR-2 to allow installation of thirteen oxy fuel burners with rated heat input capacity of 18 million British thermal units per hour (MM Btu/hr) each and one unit rated at 18 MM Btu/hr which was previously authorized by the Director (for a total of 252 MM Btu/hr rated heat input capacity from the oxy fuel burners). These burners were intended to provide a remedy for cold spots that were identified in the electric arc furnaces (EAFs). The oxy fuel burners were included in the original permit, but were not installed. The modification allowing installation of the oxy fuel burners was not considered a major modification to an existing major source because the increase in NO_x emissions were estimated to be less than the significance level of 40 tons per year (tpy) for *Prevention of Significant Deterioration* (PSD) as found in 40 CFR 52.21. Nucor has conducted stack testing for CO and NO_x from the oxy fuel burners to compare emissions with and without the oxy fuel burners during operation of the EAFs. The test results revealed that CO emissions decrease

when the oxy fuel burners are in operation. NO_x emissions increased by 26.23 tpy which is less than the PSD significance level.

Permit 1139-AR-3

Air permit 1139-AR-3 issued on February 22, 1995 allowed Nucor to increase their steel production levels from 300 to 475 tons per hour. This permit was issued under the PSD. That modification also permitted the use of iron carbide as a scrap supplement, the replacement of the oxy fuel burners with low NO_x burners, and the installation of two small baghouses to capture particulate emissions from the lime charging system. The EAF baghouse dust processing and slag processing operations, previously operated under separate permits, were consolidated into the Nucor permit with this revision. Air permits 1323-A and 1335-A were rescinded. Emission limits for criteria pollutants were rounded to one decimal place in 1139-AR-3 according to Department policy.

Air permit 1139-AR-3 also allowed MG Industries, a subcontractor to Nucor, to install and operate an air separation facility on the Nucor site. Ambient atmospheric air is compressed in a three or four stage centrifugal compressor with intercooling between each stage to remove contaminants. After the final compression stage, the air is cooled to ambient temperature to remove the heat of compression, and then cooled to approximately 40ºF to condense most of the water contained in the air. The air will enter an air separation cold box where it is cooled to -270 °F. Part of the oxygen is condensed out by liquid reflux passing down the column and the remaining oxygen is boiled out of the liquid reflux by the air. Pure nitrogen is condensed from the top of the high pressure column by boiling pure liquid oxygen in a low pressure column. Oxygen product is withdrawn in either a gaseous state or a liquid state for transfer to storage. No emissions are associated with this process.

Permit 1139-AR-4

In September, 1996, air permit 1139-AR-4 was issued to Nucor. A third ladle metallurgy furnace (LMF) (SN-39) was installed to be used as a holding station. This station allowed Nucor the flexibility to continue to make steel in the Electric Arc Furnace (EAF) in the event that the caster is inoperable. The new LMF did not increase the maximum steel production of the EAFs. Emissions from the LMF are ducted to a separate baghouse.

An oxygen lancing station (SN-40) was authorized to be located in a building near the slag processing area. Slag skulls which are too large to break using the "breaking ball" were to be cut using an oxygen lance. This process generates iron oxide dust, thus, this operation will be performed within a building and emissions will be ducted to a baghouse (SN-40). This source was dismantled and removed shortly after it was constructed.

Some of the Continuous Emissions Monitoring Systems (CEMS) required by previous permits, were replaced with semiannual testing requirements contingent upon continued compliance with the permit terms and conditions surrounding the issue. Removal of the CEMs for VOC, NO_x, and SO_2 was authorized by ADPC&E permit 1139-AR-4.

Permit 1139-AOP-R0

Permit 1139-AOP-R0 was issued on 9/7/99 and was the first permit issued to Nucor under the Arkansas Air Operating Permit Program. An administrative amendment was done on 12/10/99. The facility is subject to Title V requirements. The facility is a PSD major source. This permit included the following modifications:

1. The permit authorized the expansion of the EAF Baghouse. On June 20, 1997, Nucor Steel submitted a permit modification application for the expansion of the EAF Baghouse (SN-01). The facility proposed to add 18 baghouse compartments, install three (3) additional fans, and increase the maximum design air flow from 1.75 million acfm to 2.5 million acfm. Increased particulate matter (PM) emissions from the baghouse expansion were projected to be 49.1 TPY. Nucor Steel also submitted an application for exclusion from new source review for the proposed baghouse expansion. The baghouse expansion was approved to be excluded from new source review because it qualified as a pollution prevention project based on EPA memo dated July 1, 1994 concerning pollution control projects and new source review applicability. In February 2005, a U.S. Circuit Court ruling stated EPA did not have the authority to create pollution control project exemptions for PSD and vacated those portions of the 1992 and 2002 rules. The source which was modified as a pollution control project has under gone PSD review numerous times since this permit. The source currently meets a BACT level of control and its emissions have been analyzed to insure they meet the PM_{10} NAAQS and PSD increment standards. Further review of this source due to vacation of the rule is not necessary.

2. The permit authorized the construction and operation of the Cold Rolling Mill. On August 18, 1997, Nucor Steel submitted an addendum to the Title V application for construction of a cold rolling mill. The cold mill consists of a pickle line, three (3) pickle line boilers, cold reversing mill/temper mill, galvanizing line, eight (8) annealing furnaces, three (3) alkali wash burners, hydrated lime silo, entry scale, scale breaker, alkali wash mist eliminator, galvanizing line dryer, chromate spray, and chromate dryer. The summary of pollutant emission rates associated with the cold roll mill project are shown in the following table.

3. The permit incorporated the increase of the slag processing rate authorized previously by the Department. At that time, the facility also had requested to increase nitrogen oxide and sulfur dioxide emission limits from the vitrification unit (SN-36) and to install two charge carbon silos and an iron carbide storage dome, which changes were also approved. The EAF Dust Reclamation (SN-30 and SN-36) is no longer included in Nucor's permit. This process was owned and operated by a separate company which contracted by Nucor to process the baghouse dust.

   Subsequently, Nucor Steel submitted an amendment to its Title V air permit application to further increase the monthly slag processing rate from 30,000 to 62,000 tons/month and to increase the annual slag production rate from 300,000 to 700,000 tons. The only physical change of this amendment was the installation of two charge carbon silos and an

iron carbide storage dome. The installation of the charge carbon silos and iron carbide dome was unrelated to the requested increase in slag processing throughput. The increase in slag throughput was the result of emission factor changes, which allowed Nucor to increase the throughput without significantly affecting emissions. The crushed stone processing section of AP-42 was updated in January of 1995 in Section 11.19.2. The PM emission factor used in the previous permits for slag processing was 0.16 lb/ton. The new factor is 0.0315 lb/ton. SN-18 and SN-23 are the affected sources.

4. The permit specified a number of existing but previously uninventoried sources. The total change in permitted emissions resulting from the previously uninventoried sources was 15.4 tpy of total particulate.

Several emission factors used to calculate emission were changed throughout the permit. The total change in permitted emissions resulting from the updated emission factors was 9.5 tpy of total particulate.
The EAF Dust Reclamation (SN-30 and SN-36) was no longer included in Nucor's permit.

Permit 1139-AOP-R0 did not go through PSD review for the following reasons: Permitted emission increases from the last permit occurred due to use of updated emission factors, the addition of existing but previously uninventoried sources, and a slag processing throughput increase. The only physical changes were the addition of a new cold rolling mill process, a baghouse expansion, and the installation of two charge carbon silos and an iron carbide storage dome. The baghouse expansion was approved to be excluded from new source review because it qualified as a pollution prevention project based on an EPA memo dated July 1, 1994 concerning pollution control projects and new source review applicability. The new cold rolling mill addition resulted in a potential to emit increase less than the applicable PSD significant levels, therefore this project does not trigger new source review. The new storage domes' potential to emit was less than the PSD significant levels, therefore, did not trigger PSD review.

All of the above mentioned projects are unrelated to each other. The slag processing increase is a result of lower published emission factors. The baghouse expansion is being done to reduce the fugitive emissions from the melt shop. The construction of the cold roll mill is a totally new process which does not affect the existing steel-making process.

Permit 1139-AOP-R1

Permit 1139-AOP-R1 covered the installation of new equipment for loading railcars at the EAF baghouse dust silo, and tying the silo directly to the EAF baghouse and eliminating the bin vent. The new equipment will collect displaced air from railcars as the railcars are loaded with dust, and route the displaced air to the EAF baghouse. This will minimize the amount of dust that will accumulate in the load out area. Tying the silo directly to the EAF baghouse will eliminate the silo emission point (SN-17). The facility also added direct evacuation on the bucket elevator that feeds the silo. Previously, the elevator displaced air exhausted through the silo bin vent. These modifications result in a 0.9 ton per year decrease in potential particulate emissions. This method of handling and transferring baghouse dust to and from the baghouse dust silo for

removal off-site is at least as effective in controlling air emissions as the method described in permit 1139-A.

Permit 1139-AOP-R2

Permit 1139-AOP-R2 was issued on September 11, 2000. The permit covered the installation of a wastewater lime storage silo which will be designated SN-64. The storage silo has a displacement air bin vent filter with an outlet emission rate of 0.01 gr/dscf. At 950 scfm, the maximum potential emission rate is 0.1 lb/hr and 0.5 tpy. This new source is included in the Auxiliary Operations Compliance Unit section of this permit. The bottom of the silo has a rotary air lock with a rubber hose attached to feed lime into a cement truck.

Permit 1139-AOP-R3

Permit 1139-AOP-R3 was issued on January 3, 2001. The permit covered the following modifications: Increase in the annual emissions from 25 to 37 for LMF#3 (SN-39), this increase accounts for periods of time when the LMF #1 or LMF #2 is down; the injection carbon silo vents (SN-43 and 44) were routed to the lime/carbon silo baghouses (SN-38 and 39); a 3.5 MMBTU/hr burner was added to the alkali wash (SN-58) section of the galvanizing line; six insignificant activities were added including 2 diesel storage tanks, 2 emergency generators, and 2 emergency pumps; and the roof monitor designations for SN-06, 19, 20, and 21 were revised.

Permit 1139-AOP-R4

Permit 1139-AOP-R4 was issued on October 23, 2001. This modification covers the addition of a new steel coil cutting building, SN-65, and a briquetting operation, SN-66. The predominate emission increase from the addition of these sources is 2.4 tpy of particulate matter. This permit is also to modify the galvanizing line (SN-54) to become a dual purpose line by adding the capability to continuously anneal cold rolled product without zinc coating. Nucor is not changing the emission limits for the source, SN-54. With this modification Nucor is also adding a 1.5 MMBTU/hr natural gas fired dryer to the new chromate section of the galvanizing line. This dryer is replacing the dryer SN-60 at the chromate section. The old dryer for SN-60 is now being used at the phosphate section of the galvanizing line. The two dryers cannot operate at the same time and are interlocked from an operation standpoint. Therefore the two dryers are both combined under SN-60 and the emission rates for these sources are unchanged. Nucor is also adding a second baghouse module to both of the lime dust collectors (SN-37 and SN-38). This will allow one module to be down for cleaning while the other module is in operation for both these sources. This will not affect emission from these sources.

Permit 1139-AOP-R5

Nucor made a number of changes with this permit modification. Nucor first submitted a minor modification to their permit; this minor modification included enclosing the railcar loadout of EAF dust and venting the enclosure through a baghouse, SN-67. Nucor also added an enclosed conveyor that will convey raw materials which will also be controlled by a baghouse, SN-68.

Nucor also requested changing compliance conditions for two baghouses, SN-37 and 38, from pressure drop readings to opacity readings.

Nucor also submitted a modification which included ducting LMF No. 3 (SN-39) to the EAF baghouse (SN-01); updated the cooling tower emissions and inventory; added a second truck conveyor for lime and carbon unloading (SN-69); modified the EAF (SN-01) operations as specified in the permit application and supporting documents; modified the carbon exhaust silos (SN-43 and 44) so that their exhausts are returned to their silo bin vents exhaust; added a small (1 MMBTU) skid mounted boiler; removed the iron carbide silo SN-41; added sand to the oxygen torch cutting of coils (SN-65); and modified the slag processing plant to add a screening plant and a mill scale plant (SN-23). These changes will require a number of sources to undergo Prevention of Significant Deterioration (PSD) review.

Prevention of Significant Deterioration

BACT Analysis Summary				
Source	Description	Pollutant	Control Technology	BACT Limit
SN-01	EAF's, LMF's, casters and canopies	NO_x CO VOC PM_{10} SO_2	Natural gas fired oxy-fuel burners Direct Shell Evacuation Scrap management system Baghouse	0.51 lb/ton of steel 2.0 lb/ton of steel 0.088 lb/ton of steel 0.0018 gr/dscf 0.2 lb/ton of steel
SN-70	Cooling Towers	PM_{10}	No control	3.6 tpy
SN-65	Coil Cutting	PM_{10}	Baghouse	0.0025 gr/dscf
SN-67	Railcar Loading Station	PM_{10}	Baghouse	0.01 gr/dscf
SN-68 SN-69	Truck Conveyors	PM_{10}	Baghouse	0.01 gr/dscf
SN-37 SN-38	Lime Silos	PM_{10}	Baghouse	0.0005 gr/dscf
SN-43 SN-44	Carbon Silos	PM_{10}	Baghouse	0.01 gr/dscf
SN-23	Slag Processing Equipment	PM_{10}	Keep material sufficiently damp	4.1 tpy

Permit 1139-AOP-R6

This permit was issued on April 3, 2006. This permit incorporates a number of changes to the facility. In addition to being the Title V renewal for the facility, Nucor is adding a roof feed metallics system to each EAF, which will decrease tap to tap time and increase slag and millscale

throughputs. Also the operating restrictions on the pickle line boilers, SN-52, the Cold Reversing Mill/Temper Mill, SN-53, and the Annealing Furnaces, SN-61 were removed. Nucor is also adding a Zinc Dross furnace, SN-73; a Pickle Line Dryer, SN-74; and a Ladle Dryer, SN-20. These changes will require PSD review for all the criteria pollutants.

Summary of PSD issues Permit 1139-AOP-R6

The changes made to the facility in this permit are considered a major modification under PSD regulations. Because of these changes PSD review is required for the following pollutants NO_2, CO, SO_2, PM_{10}, VOC and Lead.

Best Available Control Technology

BACT Analysis Summary				
Source	Description	Pollutant	Control Technology	BACT Limit
SN-01	EAF, LMF, caster and canopies	NO_x	Natural gas fired oxy-fuel burners	0.51 lb/ton of steel
		CO	Direct Shell Evacuation	2.0 lb/ton of steel
		VOC	Scrap management system	0.088 lb/ton of steel
		PM_{10}	Baghouse	0.0018 gr/dscf
		SO_2		0.2 lb/ton of steel
SN-52	Pickle Line Boilers	NO_x	Low NOx Burners	0.075 lb/MMBTU
		CO	Good Combustion Practice	0.084 lb/MMBTU
		VOC	Good Combustion Practice	0.00055 lb/MMBTU
		PM_{10}	Natural Gas Usage only/ Good combustion practice	0.0076 lb/MMBTU
		SO_2	Natural Gas Usage only/ Good combustion practice	0.0006 lb/MMBTU
SN-53	Cold Reversing Mill/Temper Mill	PM_{10}	Mist Eliminator	0.0025 gr/dscf
SN-51	Pickle Line	PM_{10}	Mist Eliminator	0.0015 gr/dscf

SN-61	Annealing Furnaces	NO_x	Low NOx Burners	0.01 gr/dscf
		CO	Good Combustion Practice	0.084 lb/MMBTU
		VOC	Good Combustion Practice	0.00055 lb/MMBTU
		PM_{10}	Natural Gas Usage only/ Good combustion practice	0.0076 lb/MMBTU
		SO_2	Natural Gas Usage only/ Good combustion practice	0.0006 lb/MMBTU
SN-54	Galvanizing Line	NO_x	SNCR (direct-fired section) SCR (radiant tube section)	0.035 lb/MMBTU
		CO	Good Combustion Practice	0.084 lb/MMBTU
		VOC	Good Combustion Practice	0.00055 lb/MMBTU
		PM_{10}	Natural Gas Usage only/ Good combustion practice	0.0076 lb/MMBTU
		SO_2	Natural Gas Usage only/ Good combustion practice	0.0006 lb/MMBTU
SN-56 SN-55 SN-54 SN-57 SN-62	Scale Removal Scale Breaker Chromate Spray Hydrated Lime Silo	PM_{10}	Fabric Filter	0.003 gr/dscf
SN-63	Alkali Wash Section	PM_{10}	Mist Eliminator	0.003 gr/dscf
SN-58, 59, 60, 73, and 74	Natural Gas Fired Burners and Dryers	NO_x	Low NOx Burners	0.062 lb/MMBTU
		CO	Good Combustion Practice	0.084 lb/MMBTU
		VOC	Good Combustion Practice	0.00055 lb/MMBTU
		PM_{10}	Natural Gas Usage only/ Good combustion practice	0.0076 lb/MMBTU
		SO_2	Natural Gas Usage only/ Good combustion practice	0.0006 lb/MMBTU

SN-20	Ladle Dryer	NO_x	Low NOx Burners	0.01 lb/MMBTU
		CO	Good Combustion Practice	0.084 lb/MMBTU
		VOC	Good Combustion Practice	0.00055 lb/MMBTU
		PM_{10}	Natural Gas Usage only/ Good combustion practice	0.0076 lb/MMBTU
		SO_2	Natural Gas Usage only/ Good combustion practice	0.0006 lb/MMBTU
SN-18	Slag Processing	PM_{10}	Water Sprays	

1139-AOP-R7

Permit 1139-AOP-R7 was issued on July 17, 2006. This permit included a minor mod application which adds 3 bin vent filters to the Roof Flux Feed system. The original permit for the roof feed flux system had the dust from the three conveyor transfer points carried back to a baghouse but it was determined prior to installation that the distance was too great to provide sufficient airflow to the baghouse to control these sources. Therefore the bin vents were added. These bin vents were added as sources SN-75, 76, and 77. The lime storage silo baghouses SN-37 and SN-38 will be removed upon installation of Roof Flux Feed system. Each of these baghouses has two modules which allow the one module to be cleaned while the other is in operation. Nucor planned to move one of the modules from these baghouses to control the particulate emissions from the day bins inside the melt shop. Once the roof flux feed system is installed and the baghouses SN-37 and 38 are no longer needed the other module will be put in service with the module controlling dust from the day bins. The day bin baghouse was designated as SN-78.

1139-AOP-R8

This permit was issued October 24, 2006. It included a minor mod application which adds a third cell to the existing cooling tower system #3, SN-48. Estimated emissions from the new cell are 0.07 tpy of particulate emissions. Permitted emissions for the source did not change.

1139-AOP-R9

This permit was issued on December 12, 2007. This modification added a new Cold Rolling Mill and ancillary sources to the facility. These were added as sources SN-79 through SN-95. This permit also added update of the Melt Shop Emissions (SN-01) to include filterable and condensable PM emissions as required in their previous permit. The melt shop baghouses were modified from roof monovent exhaust to a 140 ft. stack on each baghouse.

A number of minor modifications were also incorporated into this permit. The bin vent filter on the Lime Storage Silo, SN-38, was replaced with a baghouse. Also 3 emergency generators, SN-96, 97, and 98 were added to the permit. Emissions from the modifications increased 326.7 tons of PM, 168.8 tons of CO, 71.3 tons of NO_x, 27 tons of SO_2, and 11.8 tons of VOC. The majority of the increase in PM was from the addition of condensable emissions to the permit which were previously unpermitted.

Prevention of Significant Deterioration

The changes made to the facility in this permit are considered a major modification under PSD regulations. Because of these changes PSD review is required for the following pollutants NO_2, CO, and PM_{10}.

Best Available Control Technology

The PSD regulations mandate that a case-by-case Best Available Control Technology (BACT) analysis be performed on all new or modified affected sources at which a net emissions increase will occur.

BACT Analysis Summary				
Source	Description	Pollutant	Control Technology	BACT Limit
SN-80	Pickle Line Boiler	NOx	Low NOx burners	0.075 lb/MMBTU
		CO	Good Combustion Practice	0.084 lb/MMBTU
		PM/PM_{10}	Good Combustion Practice	0.0076 lb/MMBTU
SN-82	Galvanizing Line	NOx	SNCR – Direct fired Section. SCR – Radiant Tube Section	0.035 lb/MMBTU
		CO	Good Combustion Practice	0.084 lb/MMBTU
		PM/PM_{10}	Good Combustion Practice	0.0076 lb/MMBTU
SN-81	Cold Reversing Mill/Temper Mill	PM/PM_{10}	Mist Eliminators	0.0025 grain/dscf
SN-79	Pickle Line	PM/PM_{10}	Scrubber/mist Eliminators	0.0015 gr/dscf

SN-89	Annealing Furnaces	NOx CO PM/PM_{10}	Low NOx burners Good Combustion Practice Good Combustion Practice	0.1 lb/MMBTU 0.084 lb/MMBTU 0.0076 lb/MMBTU
SN-83, 84, 85, 90, 91	Scale Breaker, Entry Scale Removal, Chromate Spray, Hydrated Lime Silo, and Alkali Wash Section	PM/PM_{10}	Baghouses	0.003 gr/dscf
SN-86, 87, 88, 92, 93	Small Natural Gas Sources	NOx CO PM/PM_{10}	Low NOx burners Good Combustion Practice Good Combustion Practice	0.062 lb/MMBTU 0.084 lb/MMBTU 0.0076 lb/MMBTU
SN-94	Vacuum Tank Degasser	NOx CO PM/PM_{10}	Low NOx burners CO Flare Good Combustion Practice	0.005 lb/ton of steel 0.075 lb/ton of steel 0.008 gr/dscf
SN-95	VTD Boiler	NOx CO PM/PM_{10}	Ultra Low NOx burners Good Combustion Practice Good Combustion Practice	0.035 lb/MMBTU 0.061 lb/MMBTU 0.0076 lb/MMBTU

1139-AOP-R10

This permit was issued on April 15, 2009. This modification added a baghouse on the roof flux conveyor belts, SN-78A, and removed the roof monovents, SN-19, 20, and 21, on the melt shop building. The closed roof will capture emissions through the canopy system and duct them to the melt shop baghouses, SN-01. Nucor also added 4 burners at the caster deck emissions from these burners will be routed to the melt shop baghouses, SN-01.

Nucor also requested to install a baghouse on the carbon injection system, SN-43, 44, 45, and 46, in place of the present bag filter. Since the previously permitted limit was a BACT limit and the new baghouse would result in slightly higher emissions due to the increased airflow, in order to make this change the BACT limit must be re-evaluated. Nucor did not submit a BACT analysis which would justify the increase in emissions and the change was not made.

1139-AOP-R11

This permit was issued on January 24, 2011. Nucor in this modification made a number of modifications. A number of changes were made to the roof flux feed system. Two pneumatic valves were added to operate one shuttle conveyor at a time. More pneumatic valves were added to avoid evacuating equipment that does not operate continuously. The baghouse controlling SN-78A was replaced with a cyclone which is ducted to the three melt shop baghouses. The dust collected by the cyclone is routed back to conveyors and to the electric arc furnaces.

A baghouse was added to control emission from the alloy carousel in the melt shop. A 400-HP Emergency Generator, SN-100, was added to the Cold Mill. The burners on the pickle line boiler have been replaced with the heat input rate changing from 12.6 MMBTU/hr to 12.5 MMBTU/hr. One of the burners in the galvanizing line, SN-58 was incorrectly listed at 3.5 MMBTU/hr instead of 5.3 MMBTU/hr. Sources SN-09, SN-14, and SN-16 were never installed and are being removed from the permit. A number of sources in the permit list heat input rates different from the actual rates of the installed equipment. Sources SN-08, SN-07, SN-10, SN-11, SN-12, SN-13, SN-14, and SN-15 were corrected. Two tundish mandrels were installed and previously unpermitted. These are now listed as sources SN-09 and SN-14.

Permit 1139-AOP-R12

Permit 1139-AOP-R12 was issued on June 10, 2011. This permit was the Title V renewal for the facility. In this permit, roadway emissions and a number of combustion engines, emergency generators, and gasoline tanks which were previously insignificant were added as sources. Also sources SN-73 and SN-79 through SN-95 were being removed from the permit as they were never constructed.

Permit 1139-AOP-R13

In this modification Nucor replaced a burner on the EAF with a burner of identical size that can also inject direct reduced iron (DRI) fines, replaced the dense phase pneumatic conveyor that transfers the carbon from the storage silos to the Asbury hoppers with a pocket belt conveyor, installed automatic side trimmers on the pickle line, and added the ability to apply a rust preventative to the tempered coils.

Permit 1139-AOP-R14

This permit was issued on February 17, 2012. This permit modification added a vacuum degasser, SN-94, a vacuum degasser boiler, SN-95, a contact cooling tower, SN-125, and a truck dump/6 bin alloy handling system, SN-124 to the permit. Also as part of this modification Nucor is replaced the existing 150 ton ladles with 165 ton ladles to allow more free board space to accommodate the vacuum degasser and increased the transformer size for the ladle metallurgy furnaces from 20 MVA to 30 MVA. These changes trigger PSD review for SO_2 and CO.

Prevention of Significant Deterioration Issues with Permit 1139-AOP-R14

The changes made to the facility in this permit are considered a major modification under PSD regulations. The increases from the four new sources triggered PSD review for CO. When the past actual to the future projected actual the modified ladle metallurgy furnaces are considered, both SO_2 and CO were above the significant emission rate. This required PSD review for those pollutants. All other pollutants were below the significant emission rates including greenhouse gases.

Best Available Control Technology

The PSD regulations mandate that a case-by-case Best Available Control Technology (BACT) analysis be performed on all new or modified affected sources at which a net emissions increase will occur. The following table is a summary of the BACT determinations made in this permit. BACT determinations for the facility made in previous permits can be found in the Permit History section of this permit.

BACT Analysis Summary				
Source	Description	Pollutant	Control Technology	BACT Limit
SN-01	Ladle Metallurgy	SO_2	No Control	0.102 lb/ton steel from the LMF alone 0.33 lb/ton steel for all SN-01
		CO	No Control	0.02 lb/ ton steel produced from LMF alone 2.0 lbs/ton steel or all SN-01
SN-94	Vacuum Tank Degasser	SO_2	Natural Gas Combustion Only	0.005 lb/ton steel processed
		CO	CO Flare	0.075 lb/ton steel processed
SN-95	VTD Boiler	SO_2	Natural Gas Combustion Only	0.0006 lb/MMBTU
		CO	Good Combustion Practice	0.061 lb/MMBTU

The CO and SO_2 BACT for the LMF was determined to be no control. The variable nature of the emissions from the LMF and low emissions concentrations make control infeasible. Analysis of similar sources found none with controls. The LMFs at Nucor are routed, together with all emissions from the melt shop including the EAF, to a single baghouse.

The CO BACT control for the Vacuum Tank Degasser was determined to be a flare. Analysis of all similar sources showed they all used flares to control CO emissions. The SO_2 BACT control was determined to be natural gas combustion only in the burners.

The BACT control for CO for the VTD Boiler was determined to be good combustion practice. This control options is consistent with BACT determinations for other boilers of similar size. Due to the low SO_2 emissions there was no control feasible for BACT control for SO_2.

Permit 1139-AOP-R15

Permit 1139-AOP-R15 was issued on July 11, 2012. This permit modification added a non-contact cooling tower, SN-126 to the permit as part of the vacuum degasser system added in to the permit in the 1139-AOP-R14. Emission increases are 0.1 tpy of PM and PM_{10}. Emissions from the new cooling tower combined with the emissions from the degasser system did not trigger any additional PSD requirements.

Permit 1139-AOP-R16

Permit 1139-AOP-R16 was issued on November 30, 2012. This permit modification included modifications to the software controlling the annealing furnace to allow it to run hotter and longer. These modifications are associated with the PSD modification adding the vacuum degasser system in 1139-AOP-R14. As the previous modification was PSD major for SO_2 and CO, the changes to the annealing furnace require BACT limits for those pollutants. Permitted emission limits did not change.

Prevention of Significant Deterioration

The changes made to the facility in this permit are considered a major modification under PSD regulations. The increases from the modification to the annealing furnace combined with the emissions from the earlier permitted portions of the project emissions for both SO_2 and CO were above the significant emission rate. This required PSD review for those pollutants. All other pollutants were below the significant emission rates including greenhouse gases.

Best Available Control Technology

The PSD regulations mandate that a case-by-case Best Available Control Technology (BACT) analysis be performed on all new or modified affected sources at which a net emissions increase will occur. The following table is a summary of the BACT determinations made in this permit. BACT determinations for the facility made in previous permits can be found in the Permit History section of this permit.

BACT Analysis Summary				
Source	Description	Pollutant	Control Technology	BACT Limit
SN-61	Annealing Furnace	SO_2	Natural Gas Combustion Only	0.0006 lb/MMBTU
		CO	Good Combustion Practice	0.084 lb/MMBTU

The CO and SO_2 BACT for the annealing furnace was determined to be good combustion practice and natural gas combustion only respectively.

SECTION IV: SPECIFIC CONDITIONS

EAF Melt Shop Compliance Unit

SN-01: Electric Arc Furnaces

Source Description

The facility receives scrap iron and steel by barge, rail, and truck. The scrap is either unloaded and stockpiled on site or loaded directly into furnace charging buckets. The charging buckets (which are on rails) are loaded outside the melt shop. Once loaded, they travel into the building and stop beneath the lime silo where pebbled lime is added. The scrap, pebbled lime and carbon are then charged into one of the two electric arc furnaces (EAF), which have a combined capacity or target production rate of 585 tons of steel per hour. During each heat, additional materials are charged into the EAFs through the Roof Flux Feed System. There are no limitations which would preclude tapping both furnaces at the same time or charging one furnace while tapping the other. There are ten (10) EAF natural gas-fired low NO_x burners with maximum heat input capacities of 15 MMbtu/hr each. The EAF burners exhaust to the EAF baghouse.

After charging, graphite electrodes are positioned just above the steel in the furnaces. When electricity is applied, an arc jumps from the end of the electrodes to the steel. The heat generated from this arc, along with the heat from the carbon and auxiliary burners, melts the scrap into molten steel. As the steel melts, additional carbon is injected, limestone slag floats to the top of the furnace, and the steel sinks to the bottom. When the melt cycle is complete, the slag is poured off of the top of the furnace. The molten steel is then transferred to ladle metallurgy stations.

Hot gases are captured in "fourth hole" ducts (direct shell evacuation systems, or DSE) and via canopy hoods located in the overhead roof exhaust system. The combination of canopy hoods and a "dust wall" surrounds furnaces and evacuates furnace emissions during charging, tapping, and slagging operations through canopy hoods. The exhaust is ducted to a multi-compartment, positive-pressure, reverse air type baghouse (SN-01). The baghouse also controls exhaust from the No. 1, No. 2, and No. 3 ladle metallurgy stations (LMFs) and No. 1 and No. 2 continuous casters and other Melt Shop sources including, #1 and #2 Tundish Preheaters (SN-10 and 15), Tundish Nozzle Preheaters, #1 and #2 Ladle Preheat Stations (SN-08 and 13), #1 and #2 Ladle Dryout Stations (SN-07 and 12), and the #3 Ladle Dryout Station.

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 6 and 13-31. [Regulation 19, §19.901 and 40 CFR Part 52, Subpart E]

SN	Pollutant	lb/hr	tpy

SN	Pollutant	lb/hr	tpy
SN-01	PM (filterable)	37.0	162.1
	PM_{10} (filterable)	37.0	162.1
	SO_2	176.8	774.5
	VOC	53.8	235.5
	CO	1181.5	5174.6
	NO_x	304.0	1331.8
	Lead	0.82	3.59

2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions 6 and 13-31. [Regulation 19, §19.501 et seq., and 40 CFR Part 52, Subpart E]

SN	Pollutant	lb/hr	tpy
SN-01	PM (filterable + condensable)	106.9	468.2
	PM_{10} (filterable + condensable)	106.9	468.2

3. 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 Conditions 6 and 13-31. [Regulation 19, §19.901 and 40 CFR Part 52, Subpart E]

Pollutant	EAF BACT Limit	LMF BACT Limit
NO_x	0.51 lb/ton of steel	No BACT limit.
CO	2.0 lb/ton of steel	0.02 lb/ton of steel
VOC	0.088 lb/ton of steel	0.005 lb/ton of steel
PM_{10} (filterable)	0.0018 gr/dscf	0.0018 gr/dscf
SO_2	0.2 lb/ton of steel	0.102 lb/ton of steel

4. 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 Conditions 6 and 13-25. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Source	Pollutant	lb/hr	tpy
SN-01	Arsenic	0.01	0.05
	Cadmium	0.02	0.09
	Chromium	0.08	0.35
	Manganese	1.08	4.73
	Nickel	0.02	0.09

5. The EAF Baghouse (SN-01), Railcar Loading (SN-67), and EAF Melt Shop are subject to 40 CFR, Part 60, Subpart A, General Provisions and 40 CFR, Part 60, Subpart AAa, Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983 due to construction of the facility in 1991. A copy of Subpart AAa is provided in the Appendices of this permit. [40 CFR Part 60, Subpart A and Subpart AAa]

6. The permittee shall perform stack testing of SN-01 for PM emissions. Testing shall be performed annually in accordance with Specific Condition 5, Plantwide Condition 4, and EPA Reference Method 5D as found in 40 CFR, Part 60, Appendix A. The sampling time and sampling volume for each run shall be at least 4 hours and 4.50 dscm (160 dscf). The permittee shall report all emissions measured using Method 5D as filterable PM or PM_{10} or may conduct separate filterable PM_{10} testing using EPA Reference Method 201 or 201A . The permittee shall also conduct test for condensable particulate emissions concurrently using EPA reference Method 202. The permittee shall report all emissions measured as PM_{10} or may conduct separate PM_{10} testing using EPA Reference Method 201 or 201A as found in 40 CFR, Part 60, Appendix A. To show compliance with the various filterable, and filterable + condensable PM and PM_{10} limits for this source, the permittee shall report testing results from the appropriate methods. The report shall include information specified in §60.276a(f) of 40 CFR, Part 60, Subpart AAa. [§19.304 and §19.704 of Regulation 19, §60.275a(e)(1) of 40 CFR, Part 60, Subpart AAa, and 40 CFR Part 52, Subpart E]

7. Unless the presence of inclement weather makes concurrent testing infeasible, the permittee shall conduct the performance tests required by Specific Conditions 6, 10, and 16, concurrently. [§19.304 of Regulation 19 and 60.275a(e)(4) and 60.275a(j) of 40 CFR, Part 60, Subpart AAa]

8. The permittee shall submit to the Department a written report of the results of the performance test required by Specific Condition 6. The report shall include information specified in §60.276a(f) of 40 CFR, Part 60, Subpart AAa, and the information required under Plantwide Condition 4. [§19.304 and §19.705 of Regulation 19, §60. 276a(f) of 40 CFR, Part 60, Subpart AAa, and 40 CFR Part 52, Subpart E]

9. The permittee shall not discharge into the atmosphere any gases from the EAF Baghouse (SN-01) exhibiting 3 percent opacity or greater. [§19.304 of Regulation 19 and §60.272a(a)(2) of 40 CFR, Part 60, Subpart AAa]

10. The permittee shall perform observations of the opacity of the visible emissions from EAF Baghouse (SN-01) by a certified visible emission observer as follows: Visible emission observations are conducted at least once per day when the furnace is operating in the melting and refining period. These observations shall be taken in accordance with Method 9, and, for at least three 6-minute periods, the opacity shall

be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emissions, only one set of three 6-minute observations will be required. In this case, Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. Records shall be maintained of any 6-minute average that is in excess of 3% opacity. Reports of exceedances shall be submitted in accordance with Specific Condition 11. Should the permittee install a single stack to its melt shop baghouse the permittee shall install and operate a bag leak detection system in accordance with §60.273a(c), (e), (f), and (g). The permittee shall maintain records for each bag leak detection system as outlined in §60.276a(h). [§19.304 of Regulation 19 and 40 CFR, Part 60, Subpart AAa]

11. The permittee shall submit a written report of exceedances of the EAF baghouse opacity and the EAF Melt Shop opacity to the Department semi-annually in accordance with General Provision 7. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is 3 percent or greater at the EAF baghouse, and all 6-minute periods during which the average opacity is 6 percent or greater at the EAF Melt Shop due solely to the operations of the EAF. Opacity observations shall be recorded on a visible emissions observation form. The information presented in Figures 9-1 and 9-2 to EPA Method 9 shall be recorded. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

12. The permittee shall not discharge into the atmosphere any gases which exit from EAF Melt Shop which exceed 6 percent opacity or greater due solely to the operations of the EAF. Exceedances shall be defined as all 6-minute periods during which the average opacity is 6 percent or greater. This opacity limit shall apply at all times that the EAF is in operation and due solely to the operations of the electric arc furnace. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

13. The permittee shall either (a) install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside each EAF to be monitored, pursuant to 40 CFR §60.274a(f), or (b) perform daily observations of shop opacity, pursuant to 40 CFR §60.273a(d). The permittee shall notify the Department which method it elects within 30 days after the effective date of this permit. If the permittee elects to conduct opacity observations, the permittee shall conduct daily opacity readings on the EAF Melt Shop as follows: Shop opacity observations shall be conducted at least once per day when the furnace(s) is operating in the meltdown and refining period. Shop opacity shall be determined as the arithmetic average of 24 or more consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Shop opacity shall be recorded for any point(s) where visible emissions are observed in proximity to an affected EAF. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the

cause (or location) of visible emissions observed during a single incident. Records of these opacity observations shall be kept on site and made available for inspection upon request. Reports of exceedances shall be submitted in accordance with Specific Condition 11. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

14. The permittee shall either:
a. Check and record the control system fan motor amperes and damper positions on a once per shift basis;
b. Install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or
c. Install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and check and record damper positions on a once per shift basis.

15. The permittee shall notify the Department which method it elects to use within 30 days after the effective date of this permit. If the permittee elects a method which uses a volumetric flow measuring device, the permittee shall comply with the pertinent provisions of 40 CFR §60.274a(b). If the permittee elects a method based on periodic monitoring of fan motor amperes, damper positions, or both, the permittee shall comply with 40 CFR §60.274a(c), and shall conduct a compliance test to re-establish these parameters as specified in 40 CFR §60.274a(c) within 180 days after the effective date of this permit. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

16. The permittee shall determine baseline values of the fan motor amperes and damper positions, or volumetric flow rate during annual performance testing in accordance with Specific Condition 7, as may be required to demonstrate compliance according to the method chosen by the permittee pursuant to Specific Condition 14. The values of these parameters as determined during the most recent demonstration of compliance shall be maintained at the appropriate level for each applicable period. Appropriate level shall be defined as flow rates equal to or greater than those flow rates established as the baseline during the last annual performance testing on the EAF baghouse. The term appropriate period shall be defined as the time period between each annual performance testing on the EAF baghouse. Flow rates less than the baseline flow rate may be considered unacceptable operation by the Department, if operation at such flow rates results in opacity readings from the EAF melt shop greater than 6%. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

17. The permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion).

Any deficiencies shall be noted and proper maintenance performed. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

18. The permittee shall visually inspect the upper chamber of the baghouse (SN-01) for visible emissions from individual bags on a monthly basis. Worn, frayed, or defective bags shall be replaced within two weeks following the inspection in which the defect is found. The permittee shall maintain a log of the inspection and maintenance activities. The log shall be signed and dated by the person responsible for making the inspection and/or repair. This log shall be kept on site and can be used by the Department for enforcement purposes. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

19. The permittee shall maintain records of the following information: (1) all data obtained under Specific Condition 16; and (2) all monthly operational status inspections performed under Specific Condition 18. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

20. If the permittee elects to install a device to measure the pressure in the free space inside the EAFs pursuant to Specific Condition 13, the pressure shall be recorded as 15-minute integrated averages. The monitoring device may be installed in any appropriate location in the EAF duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ±5 mm of water gauge over its normal operating range and shall be calibrated according the manufacturer's instructions. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

21. If the permittee elects to install a device to measure the pressure in the free space inside the EAFs pursuant to Specific Condition 13, during each performance testing conducted in accordance with Specific Condition 6, the permittee shall determine baseline values of the pressure in the free space inside the furnace during the meltdown and refining period(s). The pressure determined during the most recent demonstration of particulate emission compliance shall be maintained at all times when the EAF is operating in a meltdown and refining period. Operation at higher pressures may be considered by the Department to be unacceptable operation and maintenance of the affected facility. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

22. If the permittee elects to install a device to measure the pressure in the free space inside the EAFs pursuant to Specific Condition 13, the permittee shall maintain records which demonstrate compliance with Specific Condition 21 and may be used by the Department for enforcement purposes. The records shall be updated on a daily basis, shall be kept on site, and shall be provided to Department personnel upon request. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

23. During any performance test conducted in accordance with Specific Condition 6, the owner or operator shall monitor the following information for all heats covered by the test:

(1) Charge weights and materials, and tap weights and materials;
(2) Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing and, if the permittee has elected to measure the pressure inside the EAFs pursuant to Specific Condition 14, the pressure inside an EAF when direct-shell evacuation control systems are used;
(3) Control device operation log; and
(4) Continuous monitor or Reference Method 9 data. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

24. The permittee shall retain all records of the measurements required by Specific Conditions 14 through 23 for at least 2 years following the date of the measurement. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

25. Operation of the EAFs at a furnace static pressure that exceeds the value established under Specific Condition 21 or at flow rates lower than those established under Specific Condition 14, may be considered by the Department to be unacceptable operation and maintenance of the affected facility, if operation at such rates results in opacity readings at the Melt Shop Building greater than 6%. Operation at such values shall be reported to the Department semiannually. [40 CFR, Part 60, Subpart AAa, and §19.304 of Regulation 19]

26. The permittee shall perform stack testing of SN-01 for NO_x, SO_2, CO, and VOC emissions. Testing shall be performed in accordance with Plantwide Conditions 3 and 4 and shall be repeated every six months thereafter. The permittee shall measure NO_x, SO_2, and CO emissions in accordance with EPA Reference Methods 7E, 6C, and 10, respectively. The permittee shall measure the total VOC emissions using EPA Reference Method 25A, from which it will subtract out methane (CH4) and ethane (C2H6) emissions from the EAF baghouse using EPA Reference Method 18 to arrive at applicable VOC levels for purposes of this permit. Semiannual stack testing for a pollutant is not required if the permittee elects to operate a CEMS for that pollutant at SN-01. [§19.702 of Regulation 19 and 40 CFR Part 52, Subpart E]

27. For each stack test performed in accordance with Specific Condition 26 that demonstrates compliance with the lb/hr emission rates in Specific Condition 1, the permittee shall calculate an emission factor for NO_x, CO, SO_2, and VOC, that reflects the pounds of each pollutant emitted per ton of steel tapped during the stack test. The emission factor shall be calculated by dividing the emission rate by the production rate, and shall be expressed as lb/ton. The emission rate for each pollutant shall be

the average of the emission rates established for each test run conducted during the stack test, expressed in pounds per hour. The production rate shall be determined by dividing the total tons of steel tapped from the EAFs during all test runs conducted during the stack test by the total amount of time of the test runs, and shall be expressed as tons per hour. The emission factor for each pollutant shall be reported to the Department together with the stack test results. [§19.702 of Regulation 19 and 40 CFR Part 52, Subpart E]

28. The permittee shall report to the Department each month the total number of tons of steel tapped from the EAFs during each of the previous twelve months. For each month, the emission factor from the nearest preceding stack test shall be multiplied by the total tons of steel tapped during that month, to establish the amount of each pollutant emitted during that month. The emissions so calculated for each of the last twelve months shall be added together and expressed as tons of pollutant per year. The sum of the last twelve months shall not exceed the ton per year limits for SN-01 in Specific Condition 1. If more than one stack test is conducted during a month, the calculation for that month shall be modified so that the total number of tons of steel tapped during the period between two consecutive stack tests shall be multiplied by the emission factor established by the stack test at the beginning of any such period. [§19.702 of Regulation 19 and 40 CFR Part 52, Subpart E]

29. The permittee shall perform stack testing of SN-01 for lead (Pb) emissions. Testing shall be performed in accordance with Plantwide Conditions 3 and 4 and shall be repeated annually thereafter. The permittee shall measure lead emissions in accordance with EPA Reference Method 12 or other alternate method, provided the Department approves the alternate method prior to use. [§19.702 of Regulation 19 and 40 CFR Part 52, Subpart E]

30. In lieu of, or in addition to calculating an emission factor for NO_x, SO_2, CO, and VOC and reporting EAF production each month as provided in Specific Conditions 27 and 28, the permittee may install and operate a monitoring device that continuously monitors and records NO_x, SO_2, CO, and VOC concentration of gases in the duct leading to the EAF baghouse. The NO_x and SO_2 monitors shall be operated in accordance with performance specification #2 which is found in 40 CFR Part 60, Appendix B, and the CEMS conditions in Attachment A of this permit. The CO monitor shall be operated in accordance with performance specification #4, which is found in 40 CFR Part 60, Appendix B, and the CEMS conditions in Attachment A of this permit. For purposes of measuring VOCs, the permittee may use an adjustment factor which will assume that the VOCs are 30% less than THC or, may take actual measurements of methane concentrations to subtract from the THC measurement to arrive at the VOC concentration. The VOC monitor shall be operated in accordance with the CEMS conditions in Attachment A of this permit. The permittee shall provide reporting from the CEMS in parts per million (ppm) and also in pounds per hour (lb/hr). The permittee shall indicate the methodology used to determine the lb/hr

figure in the required reporting. Both ppm and lb/hr data shall be used for compliance purposes. The lb/hr value shall be determined using 3-hour block averages for compliance purposes. [§19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

31. If the permittee elects to install CEMS, it shall give the Department 15 days advanced written notice. Thereafter, the permittee shall demonstrate compliance either by providing monthly production reports pursuant to Specific Conditions 27 and 28, or quarterly CEMS excess emission reports. If the permittee elects to discontinue use of CEMS, it shall give the Department 15 days advance written notice and shall resume or continue compliance with Specific Condition 27 and 28. [§19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

32. The permittee shall for metallic scrap utilized in the EAF meet the prepare and implement a pollution prevention plan as required in §63.10685(a)(1) or the scrap restrictions of §63.10685(a)(2). [Regulation 19, §19.304 and 40 CFR Part 63, Subpart YYYYY]

33. The permittee shall for scrap containing motor vehicle scrap participate in and purchase motor vehicle scrap from providers who participate in a program for the removal of mercury switches as required in §63.10685(b)(2) that is approved by the Administrator of 40 CFR Part 63, Subpart YYYYY, prepare and submit for approval a site specific plan for removal of mercury switches as required in 63.10685(b)(1), or certify the scrap does not contain motor vehicle scrap. For scrap that does not contain motor vehicle scrap the permittee must maintain records of documentation that the scrap does not contain motor vehicle scrap. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart YYYYY]

34. The permittee shall maintain the records required in §63.10 and records which demonstrate compliance with the requirements of the pollution prevention plan and scrap restrictions of Specific Condition 32, with the mercury requirements in Specific Condition 33, and the requirements of required in §63.10685(c). Additionally the permittee must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch program. If the motor vehicle scrap is purchased from a broker, the permittee must maintain records identifying each broker and documentation that all scrap provided by the broker was provided by other scrap providers who participate in an approved mercury switch removal program. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart YYYYY]

35. The permittee must submit semiannual compliance reports to the Administrator of 40 CFR Part 63, Subpart YYYYY for the control of contaminates from scrap according to the requirements of §63.10(a)(3). The report must clearly identify any deviation from the requirements of §63.10685(a) and (b) outlined in Specific Conditions 32 and 33. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart YYYYY]

36. The permittee must install, operate, and maintain a capture system that collects the emissions from each EAF and conveys the collected emissions to a pollutant control device for the removal of particulate matter. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart YYYYY]

37. The permittee must not discharge from SN-01 any gasses from an EAF which exhibit a 6% opacity or greater or contain in excess of 0.0052 gr/dscf. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart YYYYY]

38. The permittee must monitor the baghouses, SN-01 according to the compliance assurance monitoring requirements outlined in Specific Conditions 13 through 22. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart YYYYY]

Mill Building Compliance Unit

SN-02: #1 Tunnel Furnace, Section A
SN-03: #1 Tunnel Furnace, Section B
SN-04: #2 Tunnel Furnace
SN-05: Roof Monitor #5 (Shuttle Furnaces)
SN-11 Tundish Dryer
SN-22: Roof Monitor #6 (Rolling Mill Building)

Source Description

This compliance unit consists of the mill building exclusive of the EAF melt shop. Process units and exhaust points of this compliance unit include #1 Tunnel furnace, section A (SN-02), #1 Tunnel furnace, section B (SN-03), #2 Tunnel furnace (SN-04), Tunnel furnace shuttle #1 Ladle dryout station (SN-07), #1 Ladle preheat station (SN-08), #1 Tundish preheaters (SN-10), #1 Tundish dryer (SN-11), #2 Ladle dryout station (SN-12), #2 Ladle preheat station (SN-13), #2 Tundish preheaters (SN-15), Caster #1 (SN-19), Caster #2 (SN-20), Rolling Mill Building Roof Monitor (SN-22), Tundish nozzle preheaters, and #3 ladle Dryout Station.

When the steel has reached the proper composition, a ladle is moved by crane from the LMS to one of two continuous casters. The molten steel is poured from a ladle into a tundish, which funnels the molten steel into a mold. The steel solidifies as it passes through the water-cooled mold, providing immediate cooling of the outer skin. At this point, the center of the steel slab is still molten. The casters produce continuous slabs approximately two inches thick. The width of the slab varies between 36 and 64 inches. The slab is cut so that it is approximately 150 feet long. Emissions from the continuous casters are captured by canopy hoods positioned directly above each caster and routed to the EAF baghouse (SN-01).

The cut slabs then go to the rolling mill. The rolling process is initiated by heating the slab to a uniform temperature. This is accomplished using two tunnel furnaces and a shuttle system. The #1 Tunnel furnace has a maximum heat input capacity of 150 MMbtu/hr [90 MMbtu/hr for section A (SN-02) and 60 MMbtu/hr for section B (SN-03)] which is supplied by natural gas combustion. The #2 tunnel furnace has a maximum heat input capacity of 90 MMbtu/hr (SN-04) which is also supplied by natural gas combustion. The mill also utilizes a two shuttle systems to transfer slabs between the furnaces. The shuttles incorporate a 10.5 MMbtu/hr natural gas-fired burner each (SN-05). All furnaces incorporate low-NO_x burners. Once the slabs have been rolled to the proper dimensions, they are cooled by a water spray and then wound into coils. The coiled steel is stored on site prior to sale. The rolling mill operations are associated with the generation of small amounts of PM emissions. Further, many of these operations are conducted using water sprays. The rolling building vents to the atmosphere through a roof monitor (SN-22).

The mill uses five natural gas-fired ladle preheaters equipped with low-NO_x burners, each with a maximum heat input capacity of 12 MMbtu/hr, to raise the temperature of the ladles prior to the transfer of molten steel from the EAFs. Emissions from these sources are routed to the Melt Shop Baghouse, SN-01.

The mill has approximately 8 ladles in service at any time. Each ladle is generally used for approximately 55 to 60 heats. After that, the refractory brick lining in the ladles needs to be replaced. The removal of the refractory lining is accomplished using jackhammers and is associated with the PM emissions within the mill building. As such, these operations are considered as insignificant emission source.

After removal of the old refractory lining, new refractory is applied and cured. The curing is accomplished at two stations which incorporate natural gas-fired low-NO_x burners with maximum heat input capacities of 12 MMbtu/hr each. Ladle Dryout Station #1 (SN-07) and ladle Dryout Station #2 (SN-12) and Ladle Dryout Station #3 each represent one ladle dryout station. Emissions from these sources are routed to the Melt Shop Baghouse, SN-01.

The mill utilizes four natural gas-fired low-NO_x tundish preheaters, each with a maximum heat input capacity of 6 MMbtu/hr. These units are used to raise the temperature of the tundishes prior to transfer of molten steel from the ladles. SN-10 and SN-15 each represent two tundish preheaters. Emissions from these sources are routed to the Melt Shop Baghouse, SN-01.

The mill utilizes approximately 12 tundishes in service at any time. Each tundish is generally used for approximately 2 to 3 months. After that, the refractory brick lining of the tundishes needs to be replaced. The removal of the refractory lining is accomplished either by using jackhammers and is associated with the PM emissions within the mill building, or by mechanical means in the area between the melt shop and the interior slag processing area. As such, these operations are considered as de minimis emission source.

After removal of the old refractory lining, new refractory is applied and cured. The refractory is cured with a natural gas-fired burner with maximum heat input capacity of 6 MMbtu/hr, SN-11. Emissions from this source were previously considered to be routed to the Melt Shop Baghouse, SN-01, however; the source has been outside the melt shop with its own stack this is corrected in Permit 1139-AOP-R11.

The mill incorporates four natural gas-fired low-NO_x tundish nozzle preheaters, each with a maximum heat input capacity of 2.5 MMbtu/hr. Emissions from these sources are routed to the Melt Shop Baghouse, SN-01.

The Tundish Mandrels, SN-09 and SN-14 are three 3 MMBTU/hr natural gas fired burners. The Tundish Mandrels are used to harden the working layer of refractory tin the tundishes after they have been rebricked. The mandrels both vibrate and heat the mortar material causing it to disperse evenly in the tundish then solidify.

There are a number of smaller natural gas-fired units, such as space heaters and torches, at the facility. The permittee estimates heat input capacity of these units as 10% of that of major natural gas fired sources or, approximately, 86 MMbtu/hr. Each of these units is considered an insignificant source.

The following table presents a summary of the roof monitor exhaust configuration.

Roof Monitor	Source	Sources Exhausted Through a Roof Monitor
5	SN-05	Shuttle Furnaces
6	SN-22	Mill Building

Specific Conditions

39. The permittee shall not exceed the emission rates set forth in the following table. Compliance with these rates shall be demonstrated by Specific Condition 40. [Regulation 19, §19.901 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
SN-02	PM	0.7	3.0
	PM_{10}	0.7	3.0
	SO_2	0.1	0.3
	VOC	0.3	1.1
	CO	6.3	27.6
	NO_x	16.2	71.0
SN-03	PM	0.5	2.0
	PM_{10}	0.5	2.0
	SO_2	0.1	0.2
	VOC	0.2	0.8
	CO	4.2	18.4
	NO_x	10.8	47.3
SN-04	PM	0.7	3.0
	PM_{10}	0.7	3.0
	SO_2	0.1	0.3
	VOC	0.3	1.1
	CO	6.3	27.6
	NO_x	16.2	71.0
SN-05	PM	0.1	0.4
	PM_{10}	0.1	0.4
	SO_2	0.1	0.1
	VOC	0.1	0.2
	CO	0.8	3.5
	NO_x	1.9	8.4
SN-11	PM	0.1	0.2
	PM_{10}	0.1	0.2
	SO_2	0.1	0.1
	VOC	0.1	0.2
	CO	0.5	2.3
	NO_x	0.6	2.7

40. The permittee shall perform annual stack testing of SN-02, SN-03, and SN-04 for carbon monoxide (CO) and nitrogen oxides (NO_x) emissions. This testing shall be conducted at least annually on the testing schedule established in previous permits, in accordance with Plantwide Condition 4, and EPA Reference Methods 10 and 7E, respectively, as found in 40 CFR Part 60, Appendix A. [§19.702 of Regulation 19 and 40 CFR Part 52, Subpart E]

41. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance for the sources with 5% opacity limits will be demonstrated through compliance by combustion of only pipeline quality natural gas.

SN	Limit	Regulatory Citation
02, 03, 04, 05, and 11	5%	§18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311

Slag Processing Compliance Unit

SN-18: Slag Pit Loadout
SN-23: Slag Processing Plant

Source Description

Slag processing compliance unit includes collection of slag from the melt shop and the screening, processing and shipping of slag, which is performed by an on-site independent contractor.

Slag is produced in the EAFs during the steel making process. The slag is discharged from the furnace and ladle and either cools naturally on the slag pit floor within the melt shop building or is directly poured into slag pots. Hot slag which is placed on the slag pit floor in the melt shop is dug out from the slag pit, placed into a front-end loader, and then loaded into a slag pot for transportation to the slag processing area.

At the slag processing area, the slag is first dumped and allowed to cool naturally. Then, water is applied. When sufficiently cooled and moistened, the slag is loaded out of the slag pit/cooling area with a front-end loader (historically, the process is denoted as SN-18) and is placed onto a slag pile. Slag that is too large to be processed, as well as other oversized material such as "skulls" and refractory, is first broken into small pieces by a breaking ball. Metallics are separated and returned to the EAFs. The remaining material is placed onto a slag pile. Water is applied to the slag pile to minimize emissions from wind erosion. Slag from the pile is then loaded into the processing feeder. Non-metallic materials are separated from metallic fractions and are screened to marketable sizes. Magnetic materials (scrap) continue to the magnetic screening section for separation into three size grades. Finally, magnetic materials are returned to be reprocessed in the EAFs or sold. All described above operations, excluding slag pit loadout, are denoted as SN-23. SN-23 also includes emissions associated with wind erosion of slag pits and slag piles and various processing activities such as feeders, conveyors, screens, etc. Because the slag is kept sufficiently damp, it is assumed that 90% particulate controlled efficiency is achieved during all slag processing operations.

Specific Conditions

42. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this emission limit shall be demonstrated by compliance with Specific Condition 43. [Regulation 19, §19.901, and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
SN-18	PM PM_{10}	1.4 0.8	5.8 2.9
SN-23	PM PM_{10}	4.1 1.8	17.7 7.8

43. The permittee shall not exceed 862,120 tons for any consecutive twelve (12) month period of slag throughput at the slag processing area. The permittee shall not exceed 225,000 tons of production in the screening plant in any consecutive 12 month period, and the permittee shall not exceed 30,000 tons of production in the mill scale plant in any consecutive 12 month period. Slag processing throughput shall be determined based on final products production, including the metallic portion of the slag which is returned to the EAFs for reprocessing. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 & 40 CFR 70.6]

44. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition 43 and may be used by the Department for enforcement purposes. The records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. An annual total and each individual month's data shall be submitted in accordance with General Provision 7. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

45. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
Each Slag Processing transfer point	20%	§19.503 of Regulation 19 and 40 CFR, Part 52, Subpart E
Each conveyor at the Slag Processing Area	20%	§19.503 of Regulation 19 and 40 CFR, Part 52, Subpart E
Each loading and unloading operation in the Slag Processing Area	20%	§19.503 of Regulation 19 and 40 CFR, Part 52, Subpart E

46. The permittee shall conduct weekly observations of the opacity from each slag processing transfer point and conveyor at the slag processing area. If visible emissions are detected, the permittee shall conduct a 6-minute opacity reading in

accordance with Method 9 at the point where visible emissions were detected. The results of these observations shall be recorded in a log which shall be kept on site and made available for inspection upon request. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

47. The permittee shall continuously water all storage piles at the slag processing area as needed to control dust emissions. All crushers and screens shall be equipped with water sprays, which shall be operated as needed to control dust emissions. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

48. The permittee shall conduct a weekly 6-minute opacity reading on each loading/unloading operation at the slag processing area in accordance with EPA Reference Method 9. The results of these readings shall be recorded in a log which shall be kept on site and made available for inspection upon request. [19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

Cold Rolling Mill Compliance Unit

SN-51: Pickle Line
SN-52: Pickle Line Boilers
SN-53: Cold Reversing Mill/Temper Mill
SN-54: Galvanizing Line
SN-55: Scale Breaker
SN-56: Entry Scale
SN-57: Chromate Spray
SN-58: Alkali Wash Burners
SN-59: Galvanizing Line Dryer
SN-60: Chromate Spray Dryer
SN-61: Annealing Furnaces
SN-62: Hydrated Lime Silo
SN-63: Alkali Wash Exhaust
SN-74 Pickle Line Dryer

Source Description

The cold mill will consist of a pickle line (SN-51), three (3) boilers (SN-52), cold reversing mill/temper mill (SN-53), galvanizing line (SN-54), scale breaker (SN-55), entry scale baghouse (SN-56), Chromate spray (SN-57), alkali wash burners (SN-58), galvanizing line dryer (SN-59), chromate dryer (SN-60), 16 annealing bases with 8 furnaces (SN-61), hydrated lime silo (SN-62), an alkali wash mist eliminator (SN-63), and a pickle line dryer (SN-74).

A fraction of Nucor's hot rolled steel will be further processed in the cold rolling mill. The rolled steel will be pickled in a hydrochloric acid bath to remove scale oxides. The pickle line will consist of a series of acid tanks at a temperature of approximately 180°F. After immersion in the acid, the steel will be rinsed with water. Exhaust from the pickle line will be ducted to a fume scrubber and mist eliminator and finally discharged to the atmosphere via a stack. There are fifteen (15) storage tanks associated with the pickle line. These tanks will be used to store water solutions of hydrochloric acid and spent pickle liquor. All fumes from the storage tanks are ducted to the fume scrubber of the pickle line (SN-51). Spent liquor is loaded into rail cars or truck and transported off-site. The pickle line will be supported by three (3) natural gas-fired boilers (SN-52) with maximum heat input capacity of 12.5 MMbtu/hr each. Exhaust from these boilers will be emitted to the atmosphere via stacks. The National Emission Standards for Hazardous Air Pollutants (NESHAP) for Steel Pickling – HCl Process went into effect on June 22, 1999. Nucor is not subject to this requirement because Nucor is not a major source for hazardous air pollutants. The pickle line boilers are subject to the New Source Performance Standards (NSPS) Subpart Dc.

The cold mill will utilize a cold reversing mill/temper mill (SN-53) to reduce the steel slab thickness. Specifically, coils of steel will be unwound and passed between a set of work rolls which will be pressed together by hydraulically-forced backup rolls. The strip of steel will be passed between the work rolls in alternating directions to effectively reduce the thickness of the

strip. A mist eliminator will be used to minimize emissions. Exhaust from the mist eliminator will be emitted to the atmosphere via a stack.

The cold mill will also incorporate a galvanizing line (SN-54) to produce galvanized strips. The line will include natural gas-fired preheat and radiant sections with maximum heat input capacities of 60 and 18.3 MMbtu/hr, respectively. NO_X emissions from the direct fired section will be controlled using selective noncatalytic reduction (SNCR), and NO_X emissions from the radiant tube furnace will be controlled using selective catalytic reduction (SCR). Nucor has modified the galvanizing line to double as a continuous annealing line. The continuous annealing process involves raising the steel strip temperature to relieve the built up stress in the strip during the thickness reduction at the cold reversing mill, SN-53.

Just prior to entering the pickle line, the coil is flexed to loosen iron oxide (scale) particles. These particles are ducted to a small baghouse (10,595 cfm) with an outlet grain loading of 0.003 grains/scf. This process is known as the scale breaker (SN-55).

The entry scale baghouse (SN-56) is a system to withdraw any loose iron oxide from the coil prior to entering the pickle line. This system is ducted to a small baghouse (5,000 cfm) with an outlet grain loading of 0.003 grain/scf.

The chromate spray (SN-57) is a process in which a thin film of chromate is intermittently applied to the galvanized steel coil, as required by the customer. Fumes are exhausted by a fan having a flow rate of 1300 cfm and an estimated grain loading of 0.003 grain/scf.

The alkali wash of the galvanizing line has three burners (SN-58) to heat the liquid and one burner in the rinse section. The three natural gas fired burners in the wash section are rated at 3.5, 5.3, and 2 MMBtu/hr the rinse burner is 3.5 MMBtu/hr. In Permit 1139-AOP-R11, one of the three burners was changed from 3.5 to 5.3 MMBTU/hr.

The alkali wash section of the galvanizing line has a small dryer (SN-59) rated at 2.5 MMBtu/hr. Emissions were calculated using AP-42 factors, except for NO_X, which was based on the vendor estimate of 0.062 lb/MMBtu.

The galvanizing line has a small dryer (SN-60) near the chromate spray section and one near the phosphate section. The dryers are natural gas fired and have a maximum heat input of 1.5 MMBtu/hr. Emissions were calculated using AP-42 factors, except for NO_X, which was based on the vendor estimate of 0.062 lb/MMBtu. The two dryers are interlinked and cannot be operated at the same time, and their emissions are combined under one source.

There are 16 annealing furnace bases, with a maximum of 8 single stack bell-type annealing furnaces (SN-61) operating simultaneously. About 4 steel coils are stacked vertically. The entire cycle is about 36 hours with 50% heating and 50% cooling. Each furnace is rated at 4.8 MMBtu/hr. The furnaces exhaust into the cold mill building and subsequently, through the roof monitor.

The hydrated lime silo (SN-62) has a small baghouse to prevent the material from escaping during filling operations. The baghouse has an estimated grain loading of 0.003 grain/scf. The alkali wash exhaust (SN-63) gas has a mist eliminator with an outlet grain loading of 0.003 grain/scf and volume flow rate of 6,000 cfm.

Specific Conditions

49. 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 Conditions 57 through 60. [§19.901 of Regulation 19 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
SN-51	PM	0.2	0.5
	PM_{10}	0.2	0.5
SN-52	PM	0.3	1.3
	PM_{10}	0.3	1.3
	SO_2	0.1	0.1
	VOC	0.2	0.9
	CO	3.2	13.9
	NO_x	2.9	12.4
SN-53	PM	1.7	7.5
	PM_{10}	1.7	7.5
SN-54	PM	0.6	2.6
	PM_{10}	0.6	2.6
	SO_2	0.1	0.2
	VOC	0.5	1.9
	CO	6.6	28.8
	NO_x	2.8	12.0
SN-55	PM	0.3	1.2
	PM_{10}	0.3	1.2
SN-56	PM	0.2	0.6
	PM_{10}	0.2	0.6
SN-57	PM	0.1	0.2
	PM_{10}	0.1	0.2
SN-58	PM	0.2	0.5
	PM_{10}	0.2	0.5
	SO_2	0.1	0.1
	VOC	0.1	0.4
	CO	1.2	5.3
	NO_X	0.9	3.9
SN-59	PM	0.1	0.1
	PM_{10}	0.1	0.1
	SO_2	0.1	0.1

Source	Pollutant	lb/hr	tpy
	VOC	0.1	0.1
	CO	0.2	0.9
	NO_X	0.2	0.7
SN-60	PM	0.1	0.1
	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.2	0.6
	NO_X	0.1	0.5
SN-61	PM	0.3	1.3
	PM_{10}	0.3	1.3
	SO_2	0.1	0.1
	VOC	0.3	1.0
	CO	3.3	14.1
	NO_X	3.9	16.8
SN-62	PM	0.1	0.1
	PM_{10}	0.1	0.1
SN-63	PM	0.2	0.7
	PM_{10}	0.2	0.7
SN-74	PM	0.1	0.1
	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.2	0.8
	NO_X	0.2	0.6

50. The permittee shall not exceed the emission rates set forth in the following table. Compliance with these emission limits shall be demonstrated by combustion of natural gas only and compliance with Plantwide Condition 5. [§19.901 of Regulation 19 and 40 CFR Part 52, Subpart E]

Source	Description	Pollutant	Control Technology	BACT Limit
SN-61	Annealing Furnace	SO_2	Natural Gas Combustion Only	0.0006 lb/MMBTU
		CO	Good Combustion Practice	0.084 lb/MMBTU

51. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this emission limit shall be demonstrated by compliance with Specific

Conditions 52 and 54. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	HAP	lb/hr	tpy
SN-51	HCl	0.2	0.8

52. The permittee shall perform annual stack testing of SN-51 for HCl emissions. Testing shall be performed according to the testing schedule established in previous permits, in accordance with Plantwide Conditions 3 and 4 and EPA Reference Method 26 as found in 40 CFR Part 60, Appendix A. [§18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

53. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance for the sources with 5% opacity limits will be demonstrated by combusting only pipeline quality natural gas.

Source	Limit	Regulatory Citation
51 and 53	10%	§19.901 of Regulation 19 and 40 CFR, Part 52, Subpart E
52, 54, 58, 59, 60, 61, and 74	5%	§19.901 of Regulation 19 and 40 CFR, Part 52, Subpart E

54. The permittee shall keep a minimum water flow rate of 5 gal/min in the pickle line scrubber (SN-51). [§18.1104 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

55. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition 54, and may be used by the Department for enforcement purposes. The records shall be updated on a daily basis, shall be kept on site, and shall be provided to Department personnel upon request. [§18.1104 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

56. The permittee shall conduct weekly observations of the opacity from SN-53. If visible emissions are detected, then the permittee shall immediately conduct a 6-minute opacity reading in accordance with EPA Reference Method 9. The result of these observations or readings shall be recorded in a log which shall be kept on site and made available for inspection upon request. [§19.705 of Regulation 19 and 40 CFR 52, Subpart E]

57. The permittee shall perform annual stack testing of SN-53 for PM emissions. Testing shall be performed according to the testing schedule established in previous permits, in

accordance with Plantwide Conditions 3 and 4, and EPA Reference Method 5 as found in 40 CFR Part 60, Appendix A. All particulate emissions shall be reported as PM_{10}, otherwise the permittee may choose to perform stack testing in accordance with EPA Reference Method 201 or 201A. [§19.702 of Regulation 19 and 40 CFR 52, Subpart E]

58. The permittee shall perform annual stack testing of SN-54 for NO_x emissions. Testing shall be when the source is operating as a continuous annealing line and performed in according to the testing schedule established in previous permits, accordance with Plantwide Conditions 3 and 4, and EPA Reference Method 7E as found in 40 CFR Part 60, Appendix A. If the source is not being operated as a continuous annealing line at the time an annual stack test is due, the source need not be tested at that time but tested within 60 days of source beginning operation as a continuous annealing line and again annually after the date of that test. [§19.702 of Regulation 19 and 40 CFR 52, Subpart E]

59. If it has been more than 12 months since SN-54 was last tested in accordance with Specific Condition 58, the permittee shall maintain records of the operating status of SN-54. These records shall include all times when the source enters and leaves service as a continuous annealing line. If the permittee is required to keep records under this condition and performs the performance test as required under Specific Condition 58, the permittee no longer need maintain up to date records unless another 12 months passes. Previous records must be maintained for 3 years. These records shall be kept in accordance with General Provision 7. [§18.1104 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

60. The permittee shall record and maintain records of the amounts of natural gas combusted in the pickle line boilers during each month. These records shall be kept on site and available for inspection upon request. [§19.304 and 40 CFR Part 60 Subpart Dc]

Auxiliary Operations Compliance Unit

SN-27: Pelletized Lime Handling
SN-29: Coke Handling
SN-37: Lime Dust Collector (North)
SN-38: Lime Dust Collector (South)
SN-42: Storage Dome
SN-43 through SN-46: Charge Carbon (Coke) Silos
SN-47 through SN-50 and SN-70: Cooling Towers
SN-64: Wastewater Lime Storage Silo
SN-67: Railcar Loading
SN-68 and 69: Truck Conveyor Baghouse
SN-71 Rice Hull Storage Silo
SN-72 Railcar and Truck Flux Unloading
SN-75 through 77 Roof Flux Feed System Bin Vents, BC4, BC5, and BC6
SN-78 and SN-78A Day Bin Baghouse and Day Bin Cyclone
SN-99 Alloy Carousel Baghouse
SN-123 Rust Preventative Coating

Source Description

The facility receives pelletized lime and carbon. These materials are stored in bulk form. The facility utilizes six (6) silos for the storage of lime and four (4) silos for the storage of carbon. Four (4) lime silos and one (1) charge carbon silo are connected to a dust collector designated as SN-38. Two (2) lime silos and one (1) charge carbon silo are connected to a dust collector designated as SN-37. The Storage Dome, SN-42, serves as a general purpose warehouse and the baghouse is currently inactive. The two remaining injection carbon silos should be designated as SN-43 and SN-44. Each of the injection carbon silos is equipped with a displacement air bin vent filter to minimize emissions of the raw materials to the atmosphere. SN-45 and SN-46 are reserved for future use.

Scrap steel is received by barge, rail, and trucks. The scrap is stored in piles on mill property. Some scrap is stored in the scrap handling building. Periodically, in-house-produced scrap is cut with torches to facilitate charging. This operation is conducted infrequently. Due to relatively small amounts of emissions associated with scrap storage and handling, this source is considered a *de minimis* emissions source. Previous permits listed the scrap handling building as an insignificant source.

Alloy materials such as silicon-manganese and ferro-silicon are received in screened form by barge. These materials are then unloaded using a grapple or clam-type bucket into trucks (denoted SN-26) and transported to an alloy storage building (denoted SN-25), where material is stored in bins. The building is enclosed. The alloys are then transported by front end loader to the melt shop area, where they are conveyed into a ladle, as needed. PM emissions are possible due to the handling of the alloy materials.

Charge carbon is delivered to the mill via barge and truck. Carbon delivered by barge is sprayed with water prior to shipment. It is unloaded into dump trucks using a clam-type bucket and stored in an enclosed building. Then the charge carbon is placed into charge containers to be charged in the furnaces. Carbon delivered by truck is delivered in a tanker truck and is pneumatically conveyed into the silo.

Injection carbon is delivered to the mill by truck and pneumatically conveyed into the silos. Then, it is blown with an injection lance into the furnaces.

Nucor operates a lime storage silo (SN-64) at the wastewater treatment plant. Lime is loaded into the storage silo by truck. During this process there is a potential for particulate emissions. The storage silo has a displacement air bin vent filter with an outlet emission rate of 0.01 gr/dscf. At 950 scfm, the maximum potential emission rate is 0.1 lb/hr. The bottom of the silo will have a rotary air lock with a rubber hose attached to feed lime into a cement truck.

Dust collected by the EAF baghouse is loaded onto railcar or truck. The railcar loading equipment is vented back to the SN-67. The railcar loading occurs in an enclosed building which is exhausted to a baghouse (SN-67). The emissions from railcar and truck unloading of fluxes are controlled by a baghouse (SN-72).

Nucor also conveys raw materials (e.g. pebble lime, carbon, etc.) from rail car to a tanker truck via an enclosed conveyor. This conveyor is equipped with a baghouse (SN-68). Nucor also has a second conveyor (SN-69) which is mobile and can operate at the same time as with SN-68.

The Rice Hull Storage Silo (SN-71) is controlled by a bin vent filter.

Transfer Points along the Roof Flux Feed system are controlled by Roof Flux Feed Bin Vent BC5, BC6, and BC7 (SN-75, 76 and 77)

The Day Bin Baghouse and Day Bin Cyclone (SN-78 and 78A) control emissions from the day bins inside the melt shop.

The Rust Preventative Coating (SN-123) operation coats the tempered coils sold to a small portion of customers.

Specific Conditions

61. 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 Plantwide Condition 5. [§19.901 of Regulation 19 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
SN-27	PM	0.1	0.5
	PM_{10}	0.1	0.5

Source	Pollutant	lb/hr	tpy
SN-29	PM	0.1	0.3
	PM_{10}	0.1	0.3
SN-37	PM	0.2	0.9
	PM_{10}	0.2	0.9
SN-38	PM	0.2	0.9
	PM_{10}	0.2	0.9
SN-42	PM	0.1	0.5
	PM_{10}	0.1	0.5
SN-43 SN-44 SN-45 SN-46	PM	0.1	0.5
	PM_{10}	0.1	0.5
SN-47	PM	0.5	1.5
	PM_{10}	0.5	1.5
SN-48	PM	0.1	0.2
	PM_{10}	0.1	0.2
SN-49	PM	0.2	0.6
	PM_{10}	0.2	0.6
SN-50	PM	0.4	1.2
	PM_{10}	0.4	1.2
SN-70	PM	0.1	0.3
	PM_{10}	0.1	0.3
SN-64	PM	0.1	0.5
	PM_{10}	0.1	0.5
SN-67	PM	0.3	1.3
	PM_{10}	0.3	1.3
SN-68	PM	0.1	0.3
	PM_{10}	0.1	0.3
SN-69	PM	0.1	0.3
	PM_{10}	0.1	0.3

62. 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 Conditions 61 and 66. [19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
SN-71	PM_{10}	0.1	0.5
SN-72	PM_{10}	1.8	7.9
SN-75	PM_{10}	0.1	0.3
SN-76	PM_{10}	0.1	0.3
SN-77	PM_{10}	0.1	0.3

Source	Pollutant	lb/hr	tpy
SN-78	PM_{10}	0.2	0.9
SN-78A	PM_{10}	0.2	1.0
SN-99	PM_{10}	0.1	0.3
SN-123	VOC	27.5	8.3

63. 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 Conditions 61 and 66. [§18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Pollutant	lb/hr	tpy
SN-71	PM	0.1	0.5
SN-72	PM	1.8	7.9
SN-75	PM	0.1	0.3
SN-76	PM	0.1	0.3
SN-77	PM	0.1	0.3
SN-78	PM	0.2	0.9
SN-78A	PM	0.2	1.0
SN-99	PM	0.1	0.3

64. The permittee shall not exceed 20% opacity from the pelletized lime handling (SN-27). Compliance with this opacity limit shall be demonstrated by Specific Condition 67. [§19.503 of Regulation 19 and 40 CFR Part 52, Subpart E]

65. The permittee shall not exceed 10% opacity from SN-37 or SN-38. Compliance with this opacity limit shall be demonstrated by complying with Specific Condition 67. [§18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

66. The permittee shall not exceed 5% opacity from SN-67, 68, 71, 72, 75, 76, 77, 78, 78A, and 99. Compliance with this opacity limit shall be demonstrated by complying with Specific Condition 67. [§18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

67. The permittee shall conduct weekly observations of the opacity from SN-27, 37, 38, 67, 68, 71, 72, 75, 76, 77, 78, 78A, and 99. If visible emissions are detected, then the permittee shall immediately conduct a 6-minute opacity reading in accordance with EPA Reference Method 9. The results of these observations or readings shall be recorded in a log which shall be kept on site and made available for inspection upon request. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

68. The permittee shall not use more than 6,000 gallons of rust preventative coating in any consecutive 12-month period. The rust preventative coating must not have a VOC content greater than 2.75 lb/gallon.

69. The permittee shall maintain monthly records of the amount of rust preventative coating used each month and the VOC content of each coating used. These records shall be updated by the 15th day of the month following the month to which the records pertain, kept on site, made available to Department personnel upon request, and submitted in accordance with General Provision 7.

Steel Coil Cutting Operations

SN-65

Source Description

The steel coil cutting operations are located in the steel coil cutting building. The cutting operations are conducted by 6 oxy-fuel torches. The torches are rated at 0.4 MMBtu/hr each. Hoods are installed over the cutting area and the exhaust is routed to four filter cartridges.

Specific Conditions

70. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be demonstrated by proper control equipment operation. [§19.501 et seq. and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM	0.5	2.0
PM_{10}	0.5	2.0
SO_2	0.1	0.1
VOC	0.1	0.1
CO	0.2	0.9
NO_X	0.3	1.1

71. The permittee shall not exceed 5% opacity from SN-65. Compliance with this opacity limit shall be demonstrated by complying with Specific Condition 72. [18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

72. The permittee shall conduct weekly observations of the opacity from SN-65. If visible emissions are detected, then the permittee shall immediately conduct a 6-minute opacity reading in accordance with EPA Reference Method 9. The results of these observations or readings shall be recorded in a log which shall be kept on site and made available for inspection upon request. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

Internal Combustion Engines

SN-96 Emergency Generator - Electrical Substation
SN-97 Emergency Generator - Water System 1
SN-98 Emergency Generator - Water System 1
SN-100 Emergency Generator - Cold Mill Treatment
SN-101 Emergency Generator - Water System 1 North #3
SN-102 Emergency Generator - Water System 1 South #4
SN-103 Emergency Generator – Megawater #1 Water System 1
SN-104 Emergency Generator – Megawater #2
SN-106 Emergency Generator Cold Mill
SN-107 Emergency Generator - Cold Mill East
SN-108 Emergency Generator - Cold Mill West
SN-109 Emergency Generator – Galvanizing Line
SN-110 Emergency Generator – IT Administration
SN-111 Emergency Generator – Radio Tower
SN-112 Emergency Generator –Radio Tower Backup
SN-113 Emergency Generator - Cold Mill Pump East
SN-114 Emergency Generator - Cold Mill Pump Water Treatment

Source Description

The Emergency Generator - Electrical Substation, SN-96, is a 200 kW, 284.8 bhp diesel-fired generator which provides power to the electrical substation in emergencies.

The Emergency Generators - Water System 1, SN-97 and 98, are 2,000 KW, 2,848 bhp diesel-fired emergency generators and provide electrical power to cooling system 1 in case of emergencies.

Emergency Generator - Cold Mill Treatment, SN-100, is a 400 bhp diesel-fired generator which provides power to the Cold Mill in emergencies.

Emergency Generator - Water System 1 North #3, SN-101 is a 2,447 bhp emergency diesel-fired emergency generator.

Emergency Generator - Water System 1 South #4, SN-102 is a 3,353 bhp diesel-fired emergency generator.

Emergency Generator – Megawater #1, SN-103 is a 2,447 bhp emergency diesel-fired emergency generator.

Emergency Generator – Megawater #2, SN-104 is a 3,353 bhp emergency diesel-fired emergency generator.

Emergency Generator - Cold Mill, SN-106, is a 1,073 bhp diesel-fired generator.

Emergency Generator - Cold Mill East, SN-107, is a 201 bhp diesel-fired generator.

Emergency Generator - Cold Mill West, SN-108, is a 201 bhp diesel-fired generator.

Emergency Generator – Galvanizing Line, SN-109, is an 80 hp natural gas-fired generator.

Emergency Generator – IT Administration, SN-110, is a 134 hp natural gas-fired generator.

Emergency Generator – Radio Tower, SN-111, is a 16 hp natural gas-fired generator.

Emergency Generator –Radio Tower Backup, SN-112 is a 7 hp natural gas-fired generator.

Emergency Generator - Cold Mill Pump East, SN-113, is a 38 bhp diesel-fired emergency pump.

Emergency Generator - Cold Mill Pump Water Treatment, SN-114, is a 400 bhp diesel-fired generator.

Specific Conditions

73. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions 76, 77, and 79 through 83. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Pollutant	lb/hr	tpy
SN-96	PM_{10}	0.7	0.2
	SO_2	0.6	0.2
	VOC	0.7	0.2
	CO	1.9	0.5
	NO_x	8.9	2.2
SN-97	PM_{10}	2.0	0.2
	SO_2	9.3	1.0
	VOC	2.0	0.2
	CO	15.7	1.6
	NO_x	68.4	6.9
SN-98	PM_{10}	2.0	0.2
	SO_2	9.3	1.0
	VOC	2.0	0.2
	CO	15.7	1.6
	NO_x	68.4	6.9

SN	Pollutant	lb/hr	tpy
SN-100	PM_{10}	0.9	0.1
	SO_2	0.9	0.1
	VOC	1.0	0.1
	CO	2.7	0.3
	NO_x	12.4	1.3
SN-101	PM_{10}	1.8	0.2
	SO_2	8.0	0.8
	VOC	1.8	0.2
	CO	13.5	1.4
	NO_x	58.8	5.9
SN-102	PM_{10}	2.4	0.3
	SO_2	10.9	1.1
	VOC	2.4	0.3
	CO	18.4	1.9
	NO_x	80.5	8.0
SN-103	PM_{10}	2.0	0.2
	SO_2	8.0	0.8
	VOC	1.8	0.2
	CO	13.5	1.4
	NO_x	58.8	5.9
SN-104	PM_{10}	2.4	0.3
	SO_2	10.9	1.1
	VOC	2.4	0.3
	CO	18.4	1.9
	NO_x	80.5	8.0
SN-106	PM_{10}	0.8	0.1
	SO_2	3.5	0.1
	VOC	0.8	0.1
	CO	5.9	0.6
	NO_X	25.8	2.6
SN-107	PM_{10}	0.5	0.1
	SO_2	0.5	0.1
	VOC	0.5	0.1
	CO	1.4	0.2
	NO_x	6.3	0.7
SN-108	PM_{10}	0.5	0.1
	SO_2	0.5	0.1
	VOC	0.5	0.1
	CO	1.4	0.2
	NO_x	6.3	0.7
SN-109	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.1

SN	Pollutant	lb/hr	tpy
	CO	2.9	0.3
	NO_x	1.7	0.2
SN-110	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	4.8	0.5
	NO_x	2.9	0.3
SN-111	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.6	0.1
	NO_x	0.4	0.1
SN-112	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.3	0.1
	NO_x	0.2	0.1
SN-113	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.3	0.1
	NO_x	1.2	0.2
SN-114	PM_{10}	0.9	0.1
	SO_2	0.9	0.1
	VOC	1.0	0.1
	CO	2.7	0.3
	NO_x	12.4	1.3

74. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions 76 and 77. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Pollutant	lb/hr	tpy
SN-96	PM	0.7	0.2
SN-97	PM	2.0	0.2
SN-98	PM	2.0	0.2
SN-100	PM	0.9	0.1
SN-101	PM	1.8	0.2

SN	Pollutant	lb/hr	tpy
SN-102	PM	2.4	0.3
SN-103	PM	2.0	0.2
SN-104	PM	2.4	0.3
SN-106	PM	0.8	0.1
SN-107	PM	0.5	0.1
SN-108	PM	0.5	0.1
SN-109	PM	0.1	0.1
SN-110	PM	0.1	0.1
SN-111	PM	0.1	0.1
SN-112	PM	0.1	0.1
SN-113	PM	0.1	0.1
SN-114	PM	0.9	0.1

75. The permittee shall not exceed 20% opacity from the Sources SN-96, 97, 98, 100, 101, 102, 103, 104, 106, 107, 108, 109, 110, 111, 112, 113, and 114. [§19.503 of Regulation 19 and 40 CFR Part 52, Subpart E]

76. The permittee shall not operate any single emergency engine, SN-97, 98, 100, 101, 102, 103, 104, 106, 107, 108, 109, 110, 111, 112, 113, and 114 more than 200 hours in any consecutive 12 month period. The permittee shall maintain records of the hours of operation of each generator each month. These records shall be updated by the 15th day of the month following the month that the records represent, kept on site, made available to Department personnel upon request and in accordance with General Provision 7. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

77. The permittee shall not operate emergency generator, SN-96 more than 500 hours in any consecutive 12 month period. The permittee shall maintain records of the hours of operation of the generator each month. These records shall be updated by the 15th day of the month following the month that the records represent, kept on site, made available to Department personnel upon request and in accordance with General Provision 7. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

78. The permittee shall comply with the provisions of 40 CFR Part 63 Subpart ZZZZ for SN-100 by complying with the provisions of 40 CFR Part 60 Subpart IIII. [§19.304 of and 40 CFR Part 63, Subpart ZZZZ]

79. The permittee shall comply with the emissions standards specified in §60.4202 of 40 CFR Part 60 Subpart IIII for SN-100. Nucor shall operate and maintain the emergency generator, SN-100 according to the manufacturer's written instruction or procedures developed by Nucor and approved by the generator manufacturer, over the life of the entire engine. [§19.304 of and 40 CFR Part 60, Subpart IIII]

80. The permittee shall install a non-resettable hour meter on the Emergency Generator, SN-100. [§19.304 of and 40 CFR Part 60, Subpart IIII]

81. The permittee shall use a diesel fuel that meets the requirements of 40 CFR 80.510(b) in the Emergency Generator, SN-100. [§19.304 of and 40 CFR Part 60, Subpart IIII]

82. If the Emergency Generator, SN-100 is equipped with a diesel particulate filter to comply with emission standards, the diesel particulate filter must be installed with a back pressure monitor that notifies Nucor when the high backpressure limit of the engine is approached. [§19.304 of and 40 CFR Part 60, Subpart IIII]

83. The permittee may only operate the Emergency Generator, SN-100, 100 hours in any consecutive 12 month period for maintenance checks and readiness testing. Nucor shall maintain monthly records of the usage of the generator. [§19.304 of and 40 CFR Part 60, Subpart IIII]

84. SN-96, 97, 98, 99, 101, 102, 103, 104, 106, 107, 108, 109, 110, 111, 112, 113, and 114 are subject to 40 CFR Part 63, Subpart ZZZZ. As these are existing sources the compliance date is May 3, 2013. For those sources Specific Conditions 86 through 93 take effect after the compliance date. The permittee is not required to comply with those conditions till then. Since SN-100 is a new source under the MACT Specific Condition 85 applies upon issuance of this permit. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ]

85. The permittee shall for SN-100 comply with the provisions of 40 CFR Part 63 Subpart ZZZZ by complying with the provisions of 40 CFR Part 60 Subpart IIII. [40 CFR Part 63 Subpart ZZZZ and §19.304 of Regulation 19]

86. The permittee must meet the following maintenance requirements for SN-96, 97, 98, 99, 101, 102, 103, 104, 106, 107, 108, 109, 110, 111, 112, 113, and 114.: Change the oil and filter every 500 hours of operation or annually, whichever comes first; inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first; and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ]

87. The permittee must for SN-96, 97, 98, 99, 101, 102, 103, 104, 106, 107, 108, 109, 110, 111, 112, 113, and 114, 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. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ]

88. The permittee is to comply with the operating limitations of 40 CFR Part 63, Subpart ZZZZ that apply at all times and maintain any affected source including any associated air pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ]

89. The permittee must maintain the Emergency Generators, SN-96, 97, 98, 99, 101, 102, 103, 104, 106, 107, 108, 109, 110, 111, 112, 113, and 114, according to the manufacturer's emission-related written instructions or develop their own maintenance plan according to 40 CFR 63.6625(e). [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ]

90. The permittee must install on each of the Emergency Engines, SN-96, 97, 98, 99, 101, 102, 103, 104, 106, 107, 108, 109, 110, 111, 112, 113, and 114, a non-resettable hour meter. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ]

91. The permittee may utilize an oil analysis program in order to extend the specified oil change requirements in Specific Condition 86. This analysis program shall be conducted as required in §63.6625(i). [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ]

92. The permittee may operate the Emergency Engines, SN-96, 97, 98, 99, 101, 102, 103, 104, 106, 107, 108, 109, 110, 111, 112, 113, and 114, 100 hours per year for maintenance and readiness checks. The permittee may operate the engines 50 hours per year in non-emergency situations as outlined in §63.6640(f)(4). Those 50 hours must be included in the 100 hours for maintenance and readiness checks. There is no limit on emergency operation due to Subpart ZZZZ. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ]

93. The permittee shall submit reports as outlined in §63.6650. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ]

Gasoline Storage Tanks

SN-115, 116, 117, 118, 119, and 120

Source Description

The gasoline storage tanks store fuel for dispensing into motor vehicles. The tanks are former insignificant activities now subject to MACT Subpart CCCCCC.

Specific Conditions

94. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be demonstrated by compliance with Specific Condition 96. [§19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-115	Gasoline Tank – Contractor Village (423 gallon)	VOC	5.2	0.4
SN-116	Gasoline Tank – Cold Mill Fuel Island (550 gallon)	VOC	6.1	0.3
SN-117	Gasoline Tank – Contractor Village (564 gallon)	VOC	6.2	0.3
SN-118	Gasoline Tank – Contractor Village (564 gallon)	VOC	6.9	0.3
SN-119	Gasoline Tank – Harsco Slag Processor (575 gallon)	VOC	7.0	0.4
SN-120	Gasoline Tank – Main Fuel Island (1000 gallon)	VOC	11.0	0.5

95. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be demonstrated by compliance with Specific Condition 96. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-115	Gasoline Tank – Contractor Village (423 gallon)	Benzene	0.07	0.01
		Toluene	0.10	0.01
		Hexane	0.18	0.02
		2, 2, 4 – Trimethylpentane	0.04	0.01
SN-116	Gasoline Tank – Cold Mill Fuel Island (550 gallon)	Benzene	0.08	0.01
		Toluene	0.11	0.01
		Hexane	0.20	0.01
		2, 2, 4 – Trimethylpentane	0.04	0.01
SN-117	Gasoline Tank –	Benzene	0.08	0.01

	Contractor Village (564 gallon)	Toluene	0.11	0.01
		Hexane	0.20	0.01
		2, 2, 4 – Trimethylpentane	0.04	0.01
SN-118	Gasoline Tank – Contractor Village (564 gallon)	Benzene	0.09	0.01
		Toluene	0.13	0.01
		Hexane	0.24	0.01
		2, 2, 4 – Trimethylpentane	0.05	0.01
SN-119	Gasoline Tank – Harsco Slag Processor (575 gallon)	Benzene	0.09	0.01
		Toluene	0.14	0.01
		Hexane	0.24	0.02
		2, 2, 4 – Trimethylpentane	0.05	0.01
SN-120	Gasoline Tank – Main Fuel Island (1000 gallon)	Benzene	0.14	0.01
		Toluene	0.20	0.01
		Hexane	0.37	0.02
		2, 2, 4 – Trimethylpentane	0.07	0.01

96. The permittee shall for sources SN-115, 116, 117, 118, 119, and 120 not exceed the maximum throughput listed in the table below in any consecutive 12-month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

SN	Description	Maximum Throughput (Gallons)
SN-115	Gasoline Tank – Contractor Village	28,000
SN-116	Gasoline Tank – Cold Mill Fuel Island	20,000
SN-117	Gasoline Tank – Contractor Village	20,000
SN-118	Gasoline Tank – Contractor Village	7,000
SN-119	Gasoline Tank – Harsco Slag Processor	20,000
SM-120	Gasoline Tank – Main Fuel Island	80,000

97. The permittee shall maintain monthly records of the amount of gasoline received at each of the tanks SN-115, 116, 117, 118, 119, and 120. These records shall be kept on site, made available to Department personnel upon request and in accordance with General Provision 7. [19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

98. The permittee 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: Minimize all gasoline spills, clean up all spills as expeditiously as practicable, cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use, minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices. [40 CFR Part 63 Subpart CCCCCC and §19.304 of Regulation 19]

99. The records in Specific Condition 97 must be made available to the Administrator of 40 CFR Part 63, Subpart CCCCCC within 24 hours of a request. [40 CFR Part 63 Subpart CCCCCC and §19.304 of Regulation 19]

Roadway Sources

SN-121 and SN-122

Source Description

SN-121 accounts for emissions from unpaved roadways and SN-122 accounts for emission from Paved Roadways

Specific Conditions

100. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be shown by application of dust suppressant as necessary to control dust emissions. [§19.501 et seq. and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
121	PM_{10}	16.5	72.3
122	PM_{10}	3.1	13.3

101. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be shown by application of dust suppressant as necessary to control dust emissions. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Source	Pollutant	lb/hr	tpy
121	PM	16.5	72.3
122	PM	3.1	13.3

102. Dust suppression activities should be conducted in a manner and at a rate of application that will not cause runoff from the area being applied. Best Management Practices (40 CFR §122.44(k)) should be used around streams and waterbodies to prevent the dust suppression agent from entering Waters of the State. Except for potable water, no agent shall be applied within 100 feet of wetlands, lakes, ponds, springs, streams, or sinkholes. Failure to meet this condition may require the permittee to obtain a National Pollutant Discharge Elimination System (NPDES) permit in accordance with 40 CFR §122.1(b). [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Vacuum Degasser Compliance Unit

SN-94, 95, 124 and 125

Source Description

SN-94, The Vacuum Degasser (VTD) is equipped with a flare to control CO emissions. The vacuum degasser is used to remove gases trapped in the steel so specific metallurgy grades of steel can more easily be obtained.

SN-95, The Vacuum Degasser boiler is a 50.4 MMBTU/hr natural gas-fired boiler.

SN-124, The Truck Dump/6 Bin Alloy System & VTD Wire Feed is controlled by a baghouse. This source accounts for emissions from alloy unloading and storage at the VTD.

SN-125, The Contact Cooling Tower is a 5,000 gallon per minute cooling tower.

SN-126 Non-Contact Cooling Tower is a 2,800 gallon per minute cooling tower for the vacuum degasser system.

Specific Conditions

103. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions 107 and 108. [Regulation 19 §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-94	Vacuum Degasser	PM_{10} VOC NO_X	0.5 1.5 1.5	2.0 6.6 6.6
SN-95	Vacuum Degasser Boiler	PM_{10} VOC NO_X	0.4 0.2 1.8	1.7 0.6 7.7
SN-124	Truck Dump/6 Bin Alloy System and VTD Wire Feed System	PM_{10}	0.4	1.7
SN-125	Contact Cooling Tower	PM_{10}	0.1	0.2
SN-126	Non-Contact Cooling Tower	PM_{10}	0.1	0.1

104. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions 107 and 108. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-94	Vacuum Degasser	PM	0.5	2.0
SN-95	Vacuum Degasser Boiler	PM	0.4	1.7
SN-124	Truck Dump/6 Bin Alloy System and VTD Wire Feed System	PM	0.4	1.7
SN-125	Contact Cooling Tower	PM	0.2	0.9
SN-126	Non-Contact Cooling Tower	PM	0.1	0.1

105. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions 107 and 108. [Regulation 19 §19.901 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-94	Vacuum Degasser	SO_2 CO	1.5 22.5	6.6 98.6
SN-95	Vacuum Degasser Boiler	SO_2 CO	0.1 3.1	0.2 13.5

106. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be show by compliance with Specific Condition 107, natural gas combustion only for SN-95, and Plantwide Condition 5. [Regulation 19, §19.901 et seq. and 40 CFR Part 52, Subpart E]

BACT Analysis Summary				
Source	Description	Pollutant	Control Technology	BACT Limit
SN-94	Vacuum Tank Degasser	SO_2	No control	0.005 lb/ton steel processed
		CO	CO Flare	0.075 lb/ton steel processed
SN-95	VTD Boiler	SO_2	Natural Gas Combustion	0.0006 lb/MMBTU
		CO	Good Combustion Practice	0.061 lb/MMBTU

107. The permittee shall install and operate alarm system to notify the operator of the presence of a pilot flame or other possible flare malfunction. The permittee shall perform monthly visual confirmation of the pilot lights, semi-annually remove the strainer and check for debris, and annual test fire to ensure pilot light. The permittee shall maintain logs of all flare inspection and maintenance activities. These logs shall be kept on site, in accordance with General Provision 7, and made available to Department personnel upon request. [§19.702, §19.304, 40 CFR 52, Subpart E, and 40 CFR Part 64]

108. The permittee shall record and monthly maintain records of the amounts of natural gas combusted in the Vacuum Degasser Boiler, SN-95, during each month. These records shall be kept on site and available for inspection upon request. [§19.304 and 40 CFR Part 60 Subpart Dc]

109. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
94, 95, and 124	5%	§18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311

110. The permittee shall conduct weekly observations of the opacity from SN-124. If visible emissions are detected, then the permittee shall immediately conduct a 6-minute opacity reading in accordance with EPA Reference Method 9. The result of these observations or readings shall be recorded in a log which shall be kept on site and made available for inspection upon request. [§19.705 of Regulation 19 and 40 CFR 52, Subpart E]

111. The permittee shall test the VTD Boiler, SN-95 for CO emissions. This test shall be conducted in accordance with Plantwide Condition 3 and EPA Reference Method 10 and repeated every 5 years after the initial test. [§19.702 of Regulation 19 and 40 CFR Part 52, Subpart E]

112. The permittee shall test the Vacuum Tank Degasser, SN-95, to show the flare is designed and operated in accordance with 40 CFR 60.18(b) through (f). This test includes a Method 22 for opacity, measurement of the actual gas flow rate and, calculations of the heating value of the gas (if complying with 60.18(c)(3)(ii) and (c)(4)). This test shall be conducted in accordance with Plantwide Condition 3. [§19.702 of Regulation 19 and 40 CFR Part 52, Subpart E]

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Nucor Corporation (Nucor Steel, Arkansas) will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future 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. [Regulation 19 §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §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. [Regulation 19 §19.410(B) and 40 CFR Part 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 Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department 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 Department within thirty (30) calendar days after completing the testing. [Regulation 19 §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by §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.

    [Regulation 19 §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by §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. [Regulation 19 §19.303 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

6. This permit subsumes and incorporates all previously issued air permits for this facility. [Regulation 26 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SECTION VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of §26.304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated January 17, 2011.

Description	Category
Scrap Handling	A-13
Alloy Handling	A-13
Pressure washer – MS	A-1
Power Washer and Skid Boiler	A-1
Pressure Water – Other	A-1
Crane Maintenance	A-1
QA/QC laboratory electric annealing furnace	A-5

SECTION VIII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §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 Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 CFR 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 CFR 70.6(a)(2) and Regulation 26 §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 Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Regulation 26 §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 CFR 70.6(a)(1)(ii) and Regulation 26 §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 CFR 70.6(a)(3)(ii)(A) and Regulation 26 §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 CFR 70.6(a)(3)(ii)(B) and Regulation 26 §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 Regulation No. 26, §26.2 must certify all required reports. The permittee will send the reports to the address below:

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

    [40 CFR 70.6(a)(3)(iii)(A) and Regulation 26 §26.701(C)(3)(a)]

8. The permittee shall report to the Department all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.

    a. For all upset conditions (as defined in Regulation19, § 19.601), the permittee will make an initial report to the Department 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 average 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 Department 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.

[Regulation 19 §19.601 and §19.602, Regulation 26 §26.701(C)(3)(b), and 40 CFR 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 Regulation are declared to be separable and severable. [40 CFR 70.6(a)(5), Regulation 26 §26.701(E), and A.C.A. §8-4-203 as referenced by §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 Regulation 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 CFR 70.6(a)(6)(i) and Regulation 26 §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 CFR 70.6(a)(6)(ii) and Regulation 26 §26.701(F)(2)]

12. The Department 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 CFR 70.6(a)(6)(iii) and Regulation 26 §26.701(F)(3)]

13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 70.6(a)(6)(iv) and Regulation 26 §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 Department may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 CFR 70.6(a)(6)(v) and Regulation 26 §26.701(F)(5)]

15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 CFR 70.6(a)(7) and Regulation 26 §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 CFR 70.6(a)(8) and Regulation 26 §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 CFR 70.6(a)(9)(i) and Regulation 26 §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 Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 CFR 70.6(b) and Regulation 26 §26.702(A) and (B)]

19. Any document (including reports) required by this permit must contain a certification by a responsible official as defined in Regulation 26, §26.2. [40 CFR 70.6(c)(1) and Regulation 26 §26.703(A)]

20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 CFR 70.6(c)(2) and Regulation 26 §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 Department. All compliance certifications required by this permit must include the following: [40 CFR 70.6(c)(5) and Regulation 26 §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 Department 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: [Regulation 26 §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. [A.C.A. §8-4-203 as referenced by §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 Department approval. The Department 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.

[Regulation 18 §18.314(A), Regulation 19 §19.416(A), Regulation 26 §26.1013(A), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 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 Department approval. Any such emissions shall be included in the facility's total emissions and reported as such. The Department 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 Department 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.

[Regulation 18 §18.314(B), Regulation 19 §19.416(B), Regulation 26 §26.1013(B), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 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 Department approval. The Department 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.

[Regulation 18 §18.314(C), Regulation 19 §19.416(C), Regulation 26 §26.1013(C), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

Appendix A

Arkansas Department of Environmental Quality

CONTINUOUS EMISSION MONITORING SYSTEMS CONDITIONS

Revised August 2004

PREAMBLE

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

1. CEMS/COMS required by 40 CFR Part 60 or 63,
2. CEMS required by 40 CFR Part 75,
3. CEMS/COMS required by ADEQ permit for reasons other that Part 60, 63 or 75.

These CEMS/COMS conditions are not intended to supercede Part 60, 63 or 75 requirements.

- Only CEMS/COMS in the third category (those required by ADEQ permit for reasons other than Part 6 63, or 75) shall comply with SECTION II, MONITORING REQUIREMENTS and SECTION I QUALITY ASSURANCE/QUALITY CONTROL.

- All CEMS/COMS shall comply with Section III, NOTIFICATION AND RECORDKEEPING.

SECTION I

DEFINITIONS

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

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

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

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

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

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

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

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

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

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

SECTION II

MONITORING REQUIREMENTS

A. For new sources, the installation date for the CEMS/COMS shall be no later than thirty (30) days from t date of start-up of the source.

B. For existing sources, the installation date for the CEMS/COMS shall be no later than sixty (60) days frc the issuance of the permit unless the permit requires a specific date.

C. Within sixty (60) days of installation of a CEMS/COMS, a performance specification test (PST) must completed. PST's are defined in 40 CFR, Part 60, Appendix B, PS 1-9. The Department may acce alternate PST's for pollutants not covered by Appendix B on a case-by-case basis. Alternate PST's shall approved, in writing, by the ADEQ CEM Coordinator prior to testing.

D. Each CEMS/COMS shall have, as a minimum, a daily zero-span check. The zero-span shall be adjust whenever the 24-hour zero or 24-hour span drift exceeds two times the limits in the applicable performan specification in 40 CFR, Part 60, Appendix B. Before any adjustments are made to either the zero or sp drifts measured at the 24-hour interval the excess zero and span drifts measured must be quantified a recorded.

E. All CEMS/COMS shall be in continuous operation and shall meet minimum frequency of operati requirements of 95% up-time for each quarter for each pollutant measured. Percent of monitor down-tir is calculated by dividing the total minutes the monitor is not in operation by the total time in the calenc quarter and multiplying by one hundred. Failure to maintain operation time shall constitute a violation of t CEMS conditions.

F. Percent of excess emissions are calculated by dividing the total minutes of excess emissions by the total tir the source operated and multiplying by one hundred. Failure to maintain compliance may constitute violation of the CEMS conditions.

G. All CEMS measuring emissions shall complete a minimum of one cycle of operation (sampling, analyzir and data recording) for each successive fifteen minute period unless more cycles are required by the perm For each CEMS, one-hour averages shall be computed from four or more data points equally spaced ov each one hour period unless more data points are required by the permit.

H. All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-seco period and one cycle of data recording for each successive 6-minute period.

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

SECTION III

NOTIFICATION AND RECORD KEEPING

A. When requested to do so by an owner or operator, the ADEQ CEM Coordinator will review plans for installation or modification for the purpose of providing technical advice to the owner or operator.

B. Each facility which operates a CEMS/COMS shall notify the ADEQ CEM Coordinator of the date for which the demonstration of the CEMS/COMS performance will commence (i.e. PST, RATA, RAA, CGA). Notification shall be received in writing no less than 15 days prior to testing. Performance test results shall be submitted to the Department within thirty days after completion of testing.

C. Each facility which operates a CEMS/COMS shall maintain records of the occurrence and duration of start up/shut down, cleaning/soot blowing, process problems, fuel problems, or other malfunction in the operation of the affected facility which causes excess emissions. This includes any malfunction of the air pollution control equipment or any period during which a continuous monitoring device/system is inoperative.

D. Except for Part 75 CEMs, each facility required to install a CEMS/COMS shall submit an excess emission and monitoring system performance report to the Department (Attention: Air Division, CEM Coordinator) at least quarterly, unless more frequent submittals are warranted to assess the compliance status of the facility. Quarterly reports shall be postmarked no later than the 30th day of the month following the end of each calendar quarter. Part 75 CEMs shall submit this information semi-annually and as part of Title V six (6) month reporting requirement if the facility is a Title V facility.

E. All excess emissions shall be reported in terms of the applicable standard. Each report shall be submitted on ADEQ Quarterly Excess Emission Report Forms. Alternate forms may be used with prior written approval from the Department.

F. Each facility which operates a CEMS/COMS must maintain on site a file of CEMS/COMS data including all raw data, corrected and adjusted, repair logs, calibration checks, adjustments, and test audits. This file must be retained for a period of at least five years, and is required to be maintained in such a condition that it can easily be audited by an inspector.

G. Except for Part 75 CEMs, quarterly reports shall be used by the Department to determine compliance with the permit. For Part 75 CEMs, the semi-annual report shall be used.

SECTION IV

QUALITY ASSURANCE/QUALITY CONTROL

A. For each CEMS/COMS a Quality Assurance/Quality Control (QA/QC) plan shall be submitted to t Department (Attn.: Air Division, CEM Coordinator). CEMS quality assurance procedures are defined in CFR, Part 60, Appendix F. This plan shall be submitted within 180 days of the CEMS/COMS installatic A QA/QC plan shall consist of procedure and practices which assures acceptable level of monitor da accuracy, precision, representativeness, and availability.

B. The submitted QA/QC plan for each CEMS/COMS shall not be considered as accepted until the facil receives a written notification of acceptance from the Department.

C. Facilities responsible for one, or more, CEMS/COMS used for compliance monitoring shall meet the minimum requirements and are encouraged to develop and implement a more extensive QA/QC program, to continue such programs where they already exist. Each QA/QC program must include written procedu which should describe in detail, complete, step-by-step procedures and operations for each of the followi activities:

1. Calibration of CEMS/COMS
   a. Daily calibrations (including the approximate time(s) that the daily zero and span drifts will be checked and the time required to perform these checks and return to stable operation)
2. Calibration drift determination and adjustment of CEMS/COMS
   a. Out-of-control period determination
   b. Steps of corrective action
3. Preventive maintenance of CEMS/COMS
   a. CEMS/COMS information
      1) Manufacture
      2) Model number
      3) Serial number
   b. Scheduled activities (check list)
   c. Spare part inventory
4. Data recording, calculations, and reporting
5. Accuracy audit procedures including sampling and analysis methods
6. Program of corrective action for malfunctioning CEMS/COMS

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

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

E. Criteria for excessive audit inaccuracy.

RATA

All Pollutants except Carbon Monoxide	> 20% Relative Accuracy
Carbon Monoxide	> 10% Relative Accuracy
All Pollutants except Carbon Monoxide	> 10% of the Applicable Standard
Carbon Monoxide	> 5% of the Applicable Standard
Diluent (O_2 & CO_2)	> 1.0 % O2 or CO2
Flow	> 20% Relative Accuracy

CGA

Pollutant	> 15% of average audit value or 5 ppm difference
Diluent (O_2 & CO_2)	> 15% of average audit value or 5 ppm difference

RAA

Pollutant	> 15% of the three run average or > 7.5 % of the applicable standard
Diluent (O_2 & CO_2)	> 15% of the three run average or > 7.5 % of the applicable standard

F. If either the zero or span drift results exceed two times the applicable drift specification in 40 CFR, Pa 60, Appendix B for five consecutive, daily periods, the CEMS is out-of-control. If either the zero or span drift results exceed four times the applicable drift specification in Appendix B during a calibratio drift check, the CEMS is out-of-control. If the CEMS exceeds the audit inaccuracies listed above, the CEMS is out-of-control. If a CEMS is out-of-control, the data from that out-of-control period is not counted towards meeting the minimum data availability as required and described in the applicable subpart. The end of the out-of-control period is the time corresponding to the completion of the successful daily zero or span drift or completion of the successful CGA, RAA or RATA.

G. A back-up monitor may be placed on an emission source to minimize monitor downtime. This back- CEMS is subject to the same QA/QC procedure and practices as the primary CEMS. The back-up CEI shall be certified by a PST. Daily zero-span checks must be performed and recorded in accordance w standard practices. When the primary CEMS goes down, the back-up CEMS may then be engaged sample, analyze and record the emission source pollutant until repairs are made and the primary uni placed back in service. Records must be maintained on site when the back-up CEMS is placed in servi these records shall include at a minimum the reason the primary CEMS is out of service, the date and ti the primary CEMS was out of service and the date and time the primary CEMS was placed back in servi

Appendix B

Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Source: 72 FR 32759, June 13, 2007, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO_2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under §60.14.

(e) Heat recovery steam generators that are associated with combined cycle gas turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/hr) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/hr) heat input of fossil fuel. If the heat recovery steam generator is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG or KKKK, as applicable, of this part).

(f) Any facility covered by subpart AAAA of this part is not subject by this subpart.

(g) Any facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject by this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

§ 60.41c Definitions.

[illegible] defined herein shall have the meaning given them in the

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal not meeting the definition of natural gas, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (*i.e.*, the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17) or diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see §60.17).

Dry flue gas desulfurization technology means a SO_2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an

alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO_2 control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means:

[illegible] and nonhydrocarbon gases found in geologic

(2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO_2 emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO_2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO_2.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

§ 60.42c Standard for sulfur dioxide (SO_2).

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO_2 emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of SO_2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO_2 emissions limit or the 90 percent SO_2 reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO_2 emissions shall neither:

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO_2 reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/hr) or less.

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area.

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of the following:

(1) The percent of potential SO_2 emission rate or numerical SO_2 emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;

(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/hr); and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

Where:

E_s= SO_2 emission limit, expressed in ng/J or lb/MMBtu heat input;

K_a= 520 ng/J (1.2 lb/MMBtu);

K_b= 260 ng/J (0.60 lb/MMBtu);

K_c= 215 ng/J (0.50 lb/MMBtu);

H_a= Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

H_b= Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H_c= Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO_2 emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO_2 emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO_2 control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(3) Coal-fired facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(i) The SO_2 emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

§ 60.43c Standard for particulate matter (PM).

(a) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that can combust coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph.

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

(e)(1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.

(2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) [illegible] performance test is completed or is required to be

greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under §60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO_2 emissions is not subject to the PM limit in this section.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and §60.8(b), performance tests required under §60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under §60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO_2 emission limits under §60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) of this section and §60.8, compliance with the percent reduction requirements and SO_2 emission limits under §60.42c is based on the average percent reduction and the average SO_2 emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO_2 emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO_2 emission rate (E_{ho}) and the 30-day average SO_2 emission rate (E_{mo}). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate E_{mo} when using daily fuel sampling or Method 6B of appendix A of this part.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho}($E_{ho}o$) is used in Equation 19–19 of Method 19 of appendix A of this part to compute the adjusted E_{ao}($E_{ao}o$). The $E_{ho}o$ is computed using the following formula:

$$E_{ho} = \frac{E_{ho} - E_w(1 - X_k)}{X_k}$$

Where:

$E_{ho}o$ = Adjusted E_{ho}, ng/J (lb/*MM*Btu);

E_{ho} = Hourly SO_2 emission rate, ng/J (lb/*MM*Btu);

E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume E_w = 0.

X_k = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(2) The owner or operator of an affected facility that qualifies under the provisions of §60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters E_w or X_k if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(f) Affected facilities subject to the percent reduction requirements under §60.42c(a) or (b) shall determine compliance with the SO_2 emission limits under §60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO_2 emission rate is computed using the following formula:

$$\%P_s = 100\left(1 - \frac{\%R_g}{100}\right)\left(1 - \frac{\%R_f}{100}\right)$$

Where:

$\%P_s$ = Potential SO_2 emission rate, in percent;

$\%R_g$ = SO_2 removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$ = SO_2 removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in

(i) To compute the $\%P_s$, an adjusted $\%R_g(\%R_go)$ is computed from $E_{ao}o$ from paragraph (e)(1) of this section and an adjusted average SO_2 inlet rate ($E_{ai}o$) using the following formula:

$$\%R_{go} = 100\left(1 - \frac{E^*_{ao}}{E^*_{ai}}\right)$$

Where:

$\%R_go$ = Adjusted $\%R_g$, in percent;

$E_{ao}o$ = Adjusted E_{ao}, ng/J (lb/MMBtu); and

$E_{ai}o$ = Adjusted average SO_2 inlet rate, ng/J (lb/MMBtu).

(ii) To compute $E_{ai}o$, an adjusted hourly SO_2 inlet rate ($E_{hi}o$) is used. The $E_{hi}o$ is computed using the following formula:

$$E_{hi}o = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

Where:

$E_{hi}o$ = Adjusted E_{hi}, ng/J (lb/MMBtu);

E_{hi} = Hourly SO_2 inlet rate, ng/J (lb/MMBtu);

E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume $E_w = 0$; and

X_k = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under §60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under §60.46c(d)(2).

(h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in §60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO_2 standards under §60.42c(c)(2) shall demonstrate the maximum design heat input capacity of

the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO_2 emissions data in calculating $\%P_s$ and E_{bo} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under §60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating $\%P_s$ or E_{bo} pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

Link to an amendment published at 76 FR 3523, Jan. 20, 2011.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3A or 3B of appendix A–2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A–3 of this part or 17 of appendix A–6 of this part.

(3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is

(iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen (O_2) or carbon dioxide (CO_2) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:

(i) The O_2 or CO_2 measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(8) Method 9 of appendix A–4 of this part shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under §60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(c) In place of PM testing with Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(14) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under §60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11

(i) For PM, Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall be used; and

(ii) After July 1, 2010 or after Method 202 of appendix M of part 51 has been revised to minimize artifact measurement and notice of that change has been published in theFederal Register,whichever is later, for condensable PM emissions, Method 202 of appendix M of part 51 shall be used; and

(iii) For O2 (or CO_2), Method 3A or 3B of appendix A–2 of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(14) After July 1, 2011, within 90 days after the date of completing each performance evaluation required by paragraph (c)(11) of this section, the owner or operator of the affected facility must either submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main* or mail a copy to: United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; Mail Code: D243–01; RTP, NC 27711.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/hr).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.46c Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO_2 emission limits under §60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO_2 concentrations and either O_2 or CO_2 concentrations at the outlet of the SO_2 control device (or the outlet of the steam generating unit if no SO_2 control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under §60.42c shall measure SO_2 concentrations and either O_2 or CO_2 concentrations at both the inlet and outlet of the SO_2 control device.

(b) The 1-hour average SO_2 emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.42c.

Each 1-hour average SO_2 emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under §60.13(h)(2). Hourly SO_2 emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities subject to the percent reduction requirements under §60.42c, the span value of the SO_2 CEMS at the inlet to the SO_2 control device shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted, and the span value of the SO_2 CEMS at the outlet from the SO_2 control device shall be 50 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of §60.42c, the span value of the SO_2 CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO_2 input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples [illegible] collected from the fuel tank for each steam generating unit immediately after the fuel

of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO_2 at the inlet or outlet of the SO_2 control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable SO_2 and CO_2 measurement train operated at the candidate location and a second similar train operated according to the procedures in §3.2 and the applicable procedures in section 7 of Performance Specification 2 of appendix B of this part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, as described under §60.48c(f), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

Link to an amendment published at 76 FR 3523, Jan. 20, 2011.

(a) Except as provided in paragraphs (c), (d), (e), (f), and (g) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in §60.43c(c) and that is not required to install a COMS due to paragraphs (c), (d), (e), or (f) of this section that elects not to install a COMS shall conduct a performance test using Method 9 of appendix A–4 of this part and the procedures in §60.11 to demonstrate compliance with the applicable limit in §60.43c and shall comply with either

paragraphs (a)(1), (a)(2), or (a)(3) of this section. If during the initial 60 minutes of observation all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent, the observation period may be reduced from 3 hours to 60 minutes.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A–4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A–4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 30 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A–4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A–4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A–7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A–7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.*, 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.*, 90 seconds per 30 minute period) the owner or operator shall either document and adjust the

procedures in paragraph (a) of this section within 30 calendar days according to the requirements in §60.45c(a)(8).

(ii) If no visible emissions are observed for 30 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A–4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A–4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243–02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(b) All COMS shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO2 or PM emissions and that are subject to an opacity standard in §60.43c(c) are not required to operate a COMS if they follow the applicable procedures in §60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in §60.45c(c). The CEMS specified in paragraph §60.45c(c) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(e) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a

COMS. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

(1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.

(ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in §60.13(h)(2).

(iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(f) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that uses a bag leak detection system to monitor the performance of a fabric filter [illegible] in section §60.48Da of this part is not

(g) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the permitting authority is not required to operate a COMS. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO_2 emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

(c) In addition to the applicable requirements in §60.7, the owner or operator of an affected facility subject to the opacity limits in §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A–4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets;

(2) For each performance test conducted using Method 22 of appendix A–4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.

(i) Dates and time intervals of all visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator

(d) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO_2 emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO_2 emission rate calculated during the reporting [illegible] with the last 30-day period; reasons for any noncompliance with the emission

(4) Identification of any steam generating unit operating days for which SO_2 or diluent (O_2 or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;.

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and

unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO_2 standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under §60.42c or §60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

Appendix C

Subpart AAa—Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983

Source: 49 FR 43845, Oct. 31, 1984, unless otherwise noted.

§ 60.270a Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities in steel plants that produce carbon, alloy, or specialty steels: electric arc furnaces, argon-oxygen decarburization vessels, and dust-handling systems.

(b) The provisions of this subpart apply to each affected facility identified in paragraph (a) of this section that commences construction, modification, or reconstruction after August 17, 1983.

§ 60.271a Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

Argon-oxygen decarburization vessel (AOD vessel) means any closed-bottom, refractory-lined converter vessel with submerged tuyeres through which gaseous mixtures containing argon and oxygen or nitrogen may be blown into molten steel for further refining.

Bag leak detection system means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag leaks and other conditions that result in increases in particulate loadings. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, electrodynamic, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Capture system means the equipment (including ducts, hoods, fans, dampers, etc.) used to capture or transport particulate matter generated by an electric arc furnace or AOD vessel to the air pollution control device.

Charge means the addition of iron and steel scrap or other materials into the top of an electric arc furnace or the addition of molten steel or other materials into the top of an AOD vessel.

Control device means the air pollution control equipment used to remove particulate matter from the effluent gas stream generated by an electric arc furnace or AOD vessel.

Direct-shell evacuation control system (DEC system) means a system that maintains a negative pressure within the electric arc furnace above the slag or metal and ducts emissions to the control device.

Dust-handling system means equipment used to handle particulate matter collected by the control device for an electric arc furnace or AOD vessel subject to this subpart. For the purposes of this subpart, the dust-handling system shall consist of the control device dust hoppers, the dust-conveying equipment, any central dust storage equipment, the dust

mill, pelletizer), dust transfer equipment (from storage to truck), and any secondary control devices used with the dust transfer equipment.

Electric arc furnace (EAF) means a furnace that produces molten steel and heats the charge materials with electric arcs from carbon electrodes. For the purposes of this subpart, an EAF shall consist of the furnace shell and roof and the transformer. Furnaces that continuously feed direct-reduced iron ore pellets as the primary source of iron are not affected facilities within the scope of this definition.

Heat cycle means the period beginning when scrap is charged to an empty EAF and ending when the EAF tap is completed or beginning when molten steel is charged to an empty AOD vessel and ending when the AOD vessel tap is completed.

Meltdown and refining period means the time period commencing at the termination of the initial charging period and ending at the initiation of the tapping period, excluding any intermediate charging periods and times when power to the EAF is off.

Melting means that phase of steel production cycle during which the iron and steel scrap is heated to the molten state.

Negative-pressure fabric filter means a fabric filter with the fans on the downstream side of the filter bags.

Positive-pressure fabric filter means a fabric filter with the fans on the upstream side of the filter bags.

Refining means that phase of the steel production cycle during which undesirable elements are removed from the molten steel and alloys are added to reach the final metal chemistry.

Shop means the building which houses one or more EAF's or AOD vessels.

Shop opacity means the arithmetic average of 24 observations of the opacity of emissions from the shop taken in accordance with Method 9 of appendix A of this part.

Tap means the pouring of molten steel from an EAF or AOD vessel.

Tapping period means the time period commencing at the moment an EAF begins to pour molten steel and ending either three minutes after steel ceases to flow from an EAF, or six minutes after steel begins to flow, whichever is longer.

[49 FR 43845, Oct. 31, 1984, as amended at 64 FR 10110, Mar. 2, 1999; 70 FR 8532, Feb. 22, 2005]

§ 60.272a Standard for particulate matter.

(a) On and after the date of which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from an EAF or an AOD vessel any gases which:

(1) Exit from a control device and contain particulate matter in excess of 12 mg/dscm (0.0052 gr/dscf);

(2) Exit from a control device and exhibit 3 percent opacity or greater; and

(3) Exit from a shop and, due solely to the operations of any affected EAF(s) or AOD vessel(s), exhibit 6 percent opacity or greater.

(b) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from the dust-handling system any gases that exhibit 10 percent opacity or greater.

§ 60.273a. Emission monitoring.

(a) Except as provided under paragraphs (b) and (c) of this section, a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) shall be installed, calibrated, maintained, and operated by the owner or operator subject to the provisions of this subpart.

(b) No continuous monitoring system shall be required on any control device serving the dust-handling system.

(c) A continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) is not required on any modular, multi-stack, negative-pressure or positive-pressure fabric filter if observations of the opacity of the visible emissions from the control device are performed by a certified visible emission observer; or on any single-stack fabric filter if visible emissions from the control device are performed by a certified visible emission observer and the owner installs and continuously operates a bag leak detection system according to paragraph (e) of this section. Visible emission observations shall be conducted at least once per day for at least three 6-minute periods when the furnace is operating in the melting and refining period. All visible emissions observations shall be conducted in accordance with Method 9. If visible emissions occur from more than one point, the opacity shall be recorded for any points where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emission, only one set of three 6-minute observations will be required. In that case, the Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. Records shall be maintained of any 6-minute average that is in excess of the emission limit specified in §60.272a(a).

(d) A furnace static pressure monitoring device is not required on any EAF equipped with a DEC system if observations of shop opacity are performed by a certified visible emission observer as follows: Shop opacity observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period. Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident.

(e) A bag leak detection system must be installed and continuously operated on all single-stack fabric filters if the owner or operator elects not to install and operate a continuous opacity monitoring system as provided for under paragraph (c) of this section. In addition, the owner or operator shall meet the visible emissions observation requirements in paragraph (c) of this section. The bag leak detection system must meet the specifications and requirements of paragraphs (e)(1) through (8) of this section.

(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.

(2) The bag leak detection system sensor must provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (*e.g.*, using a strip chart recorder or a data logger.)

(3) The bag leak detection system must be equipped with an alarm system that will sound when an increase in relative particulate loading is detected over the alarm set point established according to paragraph (e)(4) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(4) For each bag leak detection system required by paragraph (e) of this section, the owner or operator shall develop and submit to the Administrator or delegated authority, for approval, a site-specific monitoring plan that addresses the items identified in paragraphs (i) through (v) of this paragraph (e)(4). For each bag leak detection system that operates based on the triboelectric effect, the monitoring plan shall be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA–454/R–98–015). The owner or operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan shall describe the following:

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system including quality assurance procedures;

(iv) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list; and

(v) How the bag leak detection system output shall be recorded and stored.

(5) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).

(6) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided for in paragraphs (e)(6)(i) and (ii) of this section.

(i) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects including temperature and humidity according to the procedures identified in the site-specific monitoring plan required under paragraphs (e)(4) of this section.

(ii) If opacities greater than zero percent are observed over four consecutive 15-second observations during the daily opacity observations required under paragraph (c) of this section and the alarm on the bag leak detection system does not sound, the owner or operator shall lower the alarm set point on the bag leak detection system to a point where the alarm would have sounded during the period when the opacity observations were made.

(7) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detection sensor must be installed downstream of the baghouse and upstream of any wet scrubber.

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(f) For each bag leak detection system installed according to paragraph (e) of this section, the owner or operator shall initiate procedures to determine the cause of all alarms within 1 hour of an alarm. Except as provided for under paragraph (g) of this section, the cause of the alarm must be alleviated within 3 hours of the time the alarm occurred by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the following:

(1) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate emissions;

(2) Sealing off defective bags or filter media;

(3) Replacing defective bags or filter media or otherwise repairing the control device;

(4) Sealing off a defective baghouse compartment;

(5) Cleaning the bag leak detection system probe or otherwise repairing the bag leak d etection system; and

(6) Shutting down the process producing the particulate emissions.

(g) In approving the site-specific monitoring plan required in paragraph (e)(4) of this section, the Administrator or delegated authority may allow owners or operators more than 3 hours to alleviate specific conditions that cause an alarm if the owner or operator identifies the condition that could lead to an alarm in the monitoring plan, adequately explains why it is not feasible to alleviate the condition within 3 hours of the time the alarm occurred, and demonstrates that the requested additional time will ensure alleviation of the condition as expeditiously as practicable.

[49 FR 43845, Oct. 31, 1984, as amended at 54 FR 6672, Feb. 14, 1989; 64 FR 10111, Mar. 2, 1999; 70 FR 8532, Feb. 22, 2005]

§ 60.274a Monitoring of operations.

(a) The owner or operator subject to the provisions of this subpart shall maintain records of the following information:

(1) All data obtained under paragraph (b) of this section; and

(2) All monthly operational status inspections performed under paragraph (c) of this section.

(b) Except as provided under paragraph (e) of this section, the owner or operator subject to the provisions of this subpart shall check and record on a once-per-shift basis the furnace static pressure (if DEC system is in use, and a furnace static pressure gauge is installed according to paragraph (f) of this section) and either: check and record the control system fan motor amperes and damper position on a once-per-shift basis; install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and check and record damper positions on a once-per-shift basis. The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ±10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The Administrator may require the owner or operator to demonstrate the accuracy of the monitoring device(s) relative to Methods 1 and 2 of appendix A of this part.

(c) When the owner or operator of an affected facility is required to demonstrate compliance with the standards under §60.272a(a)(3) and at any other time that the Administrator may require

damper positions, the volumetric flow rate through each separately ducted hood, or the volumetric flow rate at the control device inlet and all damper positions shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the affected facility subject to paragraph (b) of this section. The owner or operator may petition the Administrator for reestablishment of these parameters whenever the owner or operator can demonstrate to the Administrator's satisfaction that the affected facility operating conditions upon which the parameters were previously established are no longer applicable. The values of these parameters as determined during the most recent demonstration of compliance shall be maintained at the appropriate level for each applicable period. Operation at other than baseline values may be subject to the requirements of §60.276a(c).

(d) Except as provided under paragraph (e) of this section, the owner or operator shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (*i.e.* , pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

(e) The owner or operator may petition the Administrator to approve any alternative to either the monitoring requirements specified in paragraph (b) of this section or the monthly operational status inspections specified in paragraph (d) of this section if the alternative will provide a continuous record of operation of each emission capture system.

(f) Except as provided for under §60.273a(d), if emissions during any phase of the heat time are controlled by the use of a DEC system, the owner or operator shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. The pressure shall be recorded as 15-minute integrated averages. The monitoring device may be installed in any appropriate location in the EAF or DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ±5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions.

(g) Except as provided for under §60.273a(d), when the owner or operator of an EAF controlled by a DEC is required to demonstrate compliance with the standard under §60.272a(a)(3), and at any other time the Administrator may require (under section 114 of the Clean Air Act, as amended), the pressure in the free space inside the furnace shall be determined during the meltdown and refining period(s) using the monitoring device required under paragraph (f) of this section. The owner or operator may petition the Administrator for reestablishment of the pressure whenever the owner or operator can demonstrate to the Administrator's satisfaction that the EAF operating conditions upon which the pressures were previously established are no longer applicable. The pressure determined during the most recent demonstration of compliance shall be maintained at all times when the EAF is operating in a meltdown and refining period. Operation at higher pressures may be considered by the Administrator to be unacceptable operation and maintenance of the affected facility.

(h) During any performance test required under §60.8, and for any report thereof required by §60.276a(f) of this subpart, or to determine compliance with §60.272a(a)(3) of this subpart, the owner or operator shall monitor the following information for all heats covered by the test:

(1) Charge weights and materials, and tap weights and materials;

(2) Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing and the pressure inside an EAF when direct-shell evacuation control systems are used;

(3) Control device operation log; and

(4) Continuous opacity monitor or Method 9 data.

[49 FR 43845, Oct. 31, 1984, as amended at 64 FR 10111, Mar. 2, 1999; 65 FR 61758, Oct. 17, 2000; 70 FR 8533, Feb. 22, 2005]

§ 60.275a Test methods and procedures.

(a) During performance tests required in §60.8, the owner or operator shall not add gaseous diluents to the effluent gas stream after the fabric in any pressurized fabric filter collector, unless the amount of dilution is separately determined and considered in the determination of emissions.

(b) When emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of this subpart but controlled by a common capture system and control device, the owner or operator shall use either or both of the following procedures during a performance test (see also §60.276a(e)):

(1) Determine compliance using the combined emissions.

(2) Use a method that is acceptable to the Administrator and that compensates for the emissions from the facilities not subject to the provisions of this subpart.

(c) When emission from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of this subpart, the owner or operator shall demonstrate compliance with §60.272(a)(3) based on emissions from only the affected facility(ies).

(d) 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).

(e) The owner or operator shall determine compliance with the particulate matter standards in §60.272a as follows:

(1) Method 5 shall be used for negative-pressure fabric filters and other types of control devices [illegible] determine the particulate

matter concentration and volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 4 hours and 4.50 dscm (160 dscf) and, when a single EAF or AOD vessel is sampled, the sampling time shall include an integral number of heats.

(2) When more than one control device serves the EAF(s) being tested, the concentration of particulate matter shall be determined using the following equation:

$$c_{st} = \left[\sum_{i=1}^{n} (c_{si} Q_{sdi})\right] \Big/ \sum_{i=1}^{n} Q_{sdi}$$

where:

c_{st}=average concentration of particulate matter, mg/dscm (gr/dscf).

c_{si}=concentration of particulate matter from control device "i", mg/dscm (gr/dscf).

n=total number of control devices tested.

Q_{sdi}=volumetric flow rate of stack gas from control device "i", dscm/hr (dscf/hr).

(3) Method 9 and the procedures of §60.11 shall be used to determine opacity.

(4) To demonstrate compliance with §60.272a(a) (1), (2), and (3), the Method 9 test runs shall be conducted concurrently with the particulate matter test runs, unless inclement weather interferes.

(f) To comply with §60.274a (c), (f), (g), and (h), the owner or operator shall obtain the information required in these paragraphs during the particulate matter runs.

(g) Any control device subject to the provisions of the subpart shall be designed and constructed to allow measurement of emissions using applicable test methods and procedures.

(h) Where emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of this subpart but controlled by a common capture system and control device, the owner or operator may use any of the following procedures during a performance test:

(1) Base compliance on control of the combined emissions;

(2) Utilize a method acceptable to the Administrator that compensates for the emissions from the facilities not subject to the provisions of this subpart, or;

(3) Any combination of the criteria of paragraphs (h)(1) and (h)(2) of this section.

(i) Where emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of this subpart, determinations of compliance with §60.272a(a)(3) will only be based upon emissions originating from the affected facilities

(j) Unless the presence of inclement weather makes concurrent testing infeasible, the owner or operator shall conduct concurrently the performance tests required under §60.8 to demonstrate compliance with §60.272a(a) (1), (2), and (3) of this subpart.

[49 FR 43845, Oct. 31, 1984, as amended at 54 FR 6673, Feb. 14, 1989; 54 FR 21344, May 17, 1989; 65 FR 61758, Oct. 17, 2000]

§ 60.276a Recordkeeping and reporting requirements.

(a) Records of the measurements required in §60.274a must be retained for at least 2 years following the date of the measurement.

(b) Each owner or operator shall submit a written report of exceedances of the control device opacity to the Administrator semi-annually. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is 3 percent or greater.

(c) Operation at a furnace static pressure that exceeds the value established under §60.274a(g) and either operation of control system fan motor amperes at values exceeding ±15 percent of the value established under §60.274a(c) or operation at flow rates lower than those established under §60.274a(c) may be considered by the Administrator to be unacceptable operation and maintenance of the affected facility. Operation at such values shall be reported to the Administrator semiannually.

(d) The requirements of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with this section, provided that they comply with the requirements established by the State.

(e) When the owner or operator of an EAF or AOD is required to demonstrate compliance with the standard under §60.275 (b)(2) or a combination of (b)(1) and (b)(2) the owner or operator shall obtain approval from the Administrator of the procedure(s) that will be used to determine compliance. Notification of the procedure(s) to be used must be postmarked at least 30 days prior to the performance test.

(f) For the purpose of this subpart, the owner or operator shall conduct the demonstration of compliance with §60.272a(a) of this subpart and furnish the Administrator a written report of the results of the test. This report shall include the following information:

(1) Facility name and address;

(2) Plant representative;

(3) Make and model of process, control device, and continuous monitoring equipment;

(4) Flow diagram of process and emission capture equipment including other equipment or process(es) ducted to the same control device;

(5) Rated (design) capacity of process equipment;

(6) Those data required under §60.274a(h) of this subpart;

(i) List of charge and tap weights and materials;

(ii) Heat times and process log;

(iii) Control device operation log; and

(iv) Continuous opacity monitor or Method 9 data.

(7) Test dates and test times;

(8) Test company;

(9) Test company representative;

(10) Test observers from outside agency;

(11) Description of test methodology used, including any deviation from standard reference methods;

(12) Schematic of sampling location;

(13) Number of sampling points;

(14) Description of sampling equipment;

(15) Listing of sampling equipment calibrations and procedures;

(16) Field and laboratory data sheets;

(17) Description of sample recovery procedures;

(18) Sampling equipment leak check results;

(19) Description of quality assurance procedures;

(20) Description of analytical procedures;

(21) Notation of sample blank corrections; and

(22) Sample emission calculations.

(g) The owner or operator shall maintain records of all shop opacity observations made in accordance with §60.273a(d). All shop opacity observations in excess of the emission limit specified in §60.272a(a)(3) of this subpart shall indicate a period of excess emission, and shall be reported to the administrator semi-annually, according to §60.7(c).

(h) The owner or operator shall maintain the following records for each bag leak detection system required under §60.273a(e):

(1) Records of the bag leak detection system output;

(2) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

(3) An identification of the date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, if procedures were initiated within 1 hour of the alarm, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and if the alarm was alleviated within 3 hours of the alarm.

[49 FR 43845, Oct. 31, 1984, as amended at 54 FR 6673, Feb. 14, 1989; 64 FR 10111, Mar. 2, 1999; 65 FR 61758, Oct. 17, 2000; 70 FR 8533, Feb. 22, 2005]

Appendix D

§75.66 of this chapter to the Administrator requesting approval to apply an alternative to any requirement of §§ 60.4170 through 60.4174 and § 60.4176. Application of an alternative to any requirement of §§ 60.4170 through 60.4174 and § 60.4176 is in accordance with this section and §§ 60.4170 through 60.4174 and § 60.4176 only to the extent that the petition is approved in writing by the Administrator, in consultation with the permitting authority.

§ 60.4176 Additional requirements to provide heat input data.

The owner or operator of a Hg Budget unit that monitors and reports Hg mass emissions using a Hg concentration monitoring system and a flow monitoring system shall also monitor and report heat input rate at the unit level using the procedures set forth in part 75 of this chapter.

Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

SOURCE: 71 FR 39172, July 11, 2006, unless otherwise noted.

WHAT THIS SUBPART COVERS

§ 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines,

(ii) The model year listed in table 3 to this subpart or later model year, for fire pump engines,

(iii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(2) Owners and operators of stationary CI ICE that are not fire pump engines, that commence construction after July 11, 2005, where the stationary CI ICE are manufactured:

(i) After April 1, 2006 and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 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 applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

EMISSION STANDARDS FOR MANUFACTURERS

§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of

1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year nonemergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later nonemergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later nonemergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

§ 60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§ 60.4201 and 60.4202 during the useful life of the engines.

EMISSION STANDARDS FOR OWNERS AND OPERATORS

§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in § 60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) Reduce nitrogen oxides (NO_x) emissions by 90 percent or more, or limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (g/KW-hr) (1.2 grams per HP-hour (g/HP-hr)).

(2) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.18 g/KW-hr (0.13 g/HP-hr).

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (d)(1) and (2) of this section.

(1) Reduce NO_x emissions by 90 percent or more, or limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to 1.8 grams per KW-hour (1.2 grams per HP-hour).

(2) Reduce PM emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

FUEL REQUIREMENTS FOR OWNERS AND OPERATORS

§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

(c) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

(d) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the Federal Aid Highway System may petition the Administrator for approval to use any fuels mixed with used lubricating oil that do not meet the fuel requirements of paragraphs (a) and (b) of this section. Owners and operators must demonstrate in their petition to the Administrator that there is no other place to use the lubricating oil. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

(e) Stationary CI ICE that have a national security exemption under § 60.4200(d) are also exempt from the fuel requirements in this section.

OTHER REQUIREMENTS FOR OWNERS AND OPERATORS

§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than

or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section.

(h) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

§60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

Compliance Requirements

§60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify cedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and §60.4202(c) using the certification procedures required in 40 CFR part 94 subpart C, and must test their engines as specified in 40 CFR part 94.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 40 CFR 1039.125, 40 CFR 1039.130, 40 CFR 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89 or 40 CFR part 94 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combus-

nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2008 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pump engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate, but the words "stationary" must be included instead of "nonroad" or "marine" on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under parts 89, 94, or 1039 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words "and stationary" after the word "nonroad" or "marine," as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the

labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 8 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as "Fire Pump Applications Only".

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§ 60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§ 60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in § 60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(b) or § 60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the

§60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NO_x and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO_x and PM emissions;

(iii) 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;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

(e) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

TESTING REQUIREMENTS FOR OWNERS AND OPERATORS

§60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (d) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR

1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \qquad \text{(Eq. 1)}$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in § 60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in § 60.4204(a), § 60.4205(a), or § 60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in § 60.4204(a), § 60.4205(a), or § 60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) may follow the testing procedures specified in § 60.4213, as appropriate.

§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

(a) Each performance test must be conducted according to the requirements in § 60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in § 60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 2)}$$

Where:

C_i = concentration of NO_x or PM at the control device inlet,

C_o = concentration of NO_x or PM at the control device outlet, and

R = percent reduction of NO_x or PM emissions.

(2) You must normalize the NO_x or PM concentrations at the inlet and outlet of the control device to a dry

$$C_{adj} = C_d \frac{5.9}{20.9 - \%\ O_2} \qquad \text{(Eq. 3)}$$

Where:

C_{adj} = Calculated NO_X or PM concentration adjusted to 15 percent O_2.
C_d = Measured concentration of NO_X or PM, uncorrected.
5.9 = 20.9 percent O_2 – 15 percent O_2, the defined O_2 correction value, percent.
$\%O_2$ = Measured O_2 concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O_2 and CO_2 concentration is measured in lieu of O_2 concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (d)(3)(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:

$$F_o = \frac{0.209_{F_s}}{F_c} \qquad \text{(Eq. 4)}$$

Where:

F_o = Fuel factor based on the ratio of O_2 volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.
0.209 = Fraction of air that is O_2, percent/100.
F_s = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3/J (dscf/10^6 Btu).
F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J (dscf/10^6 Btu).

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2, as follows:

$$X_{co_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 5)}$$

Where:

X_{CO_2} = CO_2 correction factor, percent.
5.9 = 20.9 percent O_2 – 15 percent O_2, the defined O_2 correction value, percent.

(iii) Calculate the NO_X and PM gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{co_2}}{\%\ CO_2} \qquad \text{(Eq. 6)}$$

Where:

C_{adj} = Calculated NO_X or PM concentration adjusted to 15 percent O_2.
C_d = Measured concentration of NO_X or PM, uncorrected.
$\%CO_2$ = Measured CO_2 concentration, dry basis, percent.

(e) To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW\text{-}hour} \qquad \text{(Eq. 7)}$$

Where:

ER = Emission rate in grams per KW-hour.
C_d = Measured NO_X concentration in ppm.
1.912×10^{-3} = Conversion constant for ppm NO_X to grams per standard cubic meter at 25 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour.
T = Time of test run, in hours.
KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{KW\text{-}hour} \qquad \text{(Eq. 8)}$$

Where:

ER = Emission rate in grams per KW-hour.
C_{adj} = Calculated PM concentration in grams per standard cubic meter.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour.
T = Time of test run, in hours.
KW-hour = Energy output of the engine, in KW.

NOTIFICATION, REPORTS, AND RECORDS FOR OWNERS AND OPERATORS

§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in § 60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to ator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

SPECIAL REQUIREMENTS

§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in § 60.4205. Non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, must meet the applicable emission standards in § 60.4204(c).

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in § 60.4207.

§ 60.4216 What requirements must I meet for engines used in Alaska?

(a) Prior to December 1, 2010, owners and operators of stationary CI engines located in areas of Alaska not accessible by the Federal Aid Highway System should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) The Governor of Alaska may submit for EPA approval, by no later than January 11, 2008, an alternative plan for implementing the requirements of 40 CFR part 60, subpart IIII, for public-sector electrical utilities located in

Clean Air Act including any increased risks to human health and the environment and must also be based on the unique circumstances related to remote power generation, climatic conditions, and serious economic impacts resulting from implementation of 40 CFR part 60, subpart IIII. If EPA approves by rulemaking process an alternative plan, the provisions as approved by EPA under that plan shall apply to the diesel engines used in new stationary internal combustion engines subject to this paragraph.

§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

(a) Owners and operators of stationary CI ICE that do not use diesel fuel, or who have been given authority by the Administrator under § 60.4207(d) of this subpart to use fuels that do not meet the fuel requirements of paragraphs (a) and (b) of § 60.4207, may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in § 60.4202 or § 60.4203 using such fuels.

(b) [Reserved]

General Provisions

§ 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 60.1 through 60.19 apply to you.

Definitions

§ 60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and subcomponents comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

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

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 number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE 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 ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of "manufacturer" in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means either:

(1) The calendar year in which the engine was originally produced, or

(2) The annual new model production period of the engine manufacturer if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year. For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas 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 internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

Useful life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for useful life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for useful life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

TABLE 1 TO SUBPART IIII OF PART 60—EMISSION STANDARDS FOR STATIONARY PRE-2007 MODEL YEAR ENGINES WITH A DISPLACEMENT OF <10 LITERS PER CYLINDER AND 2007–2010 MODEL YEAR ENGINES >2,237 KW (3,000 HP) AND WITH A DISPLACEMENT OF <10 LITERS PER CYLINDER

[As stated in §§ 60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)

[As stated in §§ 60.4201(b), 60.4202(b), 60.4204(b), and 60.4205(b), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO_x	HC	NO_x	CO	PM
37≤KW<56 (50≤HP<75)	----------	----------	9.2 (6.9)	----------	----------
56≤KW<75 (75≤HP<100)	----------	----------	9.2 (6.9)	----------	----------
75≤KW<130 (100≤HP<175)	----------	----------	9.2 (6.9)	----------	----------
130≤KW<225 (175≤HP<300)	----------	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)	----------	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)	----------	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)	----------	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

TABLE 2 TO SUBPART IIII OF PART 60—EMISSION STANDARDS FOR 2008 MODEL YEAR AND LATER EMERGENCY STATIONARY CI ICE <37 KW (50 HP) WITH A DISPLACEMENT OF <10 LITERS PER CYLINDER

[As stated in §60.4202(b)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO_x + NMHC	CO	PM
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

TABLE 3 TO SUBPART IIII OF PART 60—CERTIFICATION REQUIREMENTS FOR STATIONARY FIRE PUMP ENGINES

[As stated in § 60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:]

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to § 60.4202(d)
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

TABLE 4 TO SUBPART IIII OF PART 60—EMISSION STANDARDS FOR STATIONARY FIRE PUMP ENGINES

[As stated in §§ 60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO_x	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+[1]	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+[1]	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+[1]	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+[1]	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+[1]	4.0 (3.0)		0.20 (0.15)

[As stated in §§ 60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO_x	CO	PM
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)		0.20 (0.15)

[1] For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

[2] For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

[3] In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in § 60.4210(f) and the recordkeeping requirements in § 60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in § 60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed[1]	Torque (percent)[2]	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

[1] Engine speed: ±2 percent of point.

[2] Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

[As stated in § 60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥30 liters per cylinder.	a. Reduce NO_x emissions by 90 percent or more.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A.	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2 at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A.	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for NO_x concentration.
		iii. If necessary, measure moisture content	(3) Method 4 of 40 CFR part 60, appen-	(c) Measurements to determine moisture

(As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of 2.30 liters per cylinder)

For each	Complying with the requirement to	You must	Using	According to the following requirements
		iv. Measure NO_X at the inlet and outlet of the control device.	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (Incorporated by reference, see §60.17).	(d) NO_X concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	b. Limit the concentration of NO_X in the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A.	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2 concentration of the stationary internal combustion engine exhaust at the sampling port location; and,	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A.	(b) Measurements to determine O_2 concentration must be made at the same time as the measurement for NO_X concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (Incorporated by reference, see §60.17).	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO_X concentration.
		iv. Measure NO_X at the exhaust of the stationary internal combustion engine.	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (Incorporated by reference, see §60.17).	(d) NO_X concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	c. Reduce PM emissions by 60 percent or more.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A.	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2 at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A.	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A.	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device.	(4) Method 5 of 40 CFR part 60, appendix A.	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A.	(a) If using a control device, the sampling site must be located at the outlet of the control device.

[As stated in § 60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder.]

For each	Complying with the requirement to	You must	Using	According to the following requirements
		i. Determine the O_2 concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A.	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for PM concentration.
		ii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A.	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine.	(4) Method 5 of 40 CFR part 60, appendix A.	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

TABLE 8 TO SUBPART IIII OF PART 60—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART IIII

[As stated in § 60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.1	General applicability of the General Provisions.	Yes.	
§ 60.2	Definitions	Yes	Additional terms defined in § 60.4219.
§ 60.3	Units and abbreviations	Yes.	
§ 60.4	Address	Yes.	
§ 60.5	Determination of construction or modification.	Yes.	
§ 60.6	Review of plans	Yes.	
§ 60.7	Notification and Recordkeeping	Yes	Except that § 60.7 only applies as specified in § 60.4214(a).
§ 60.8	Performance tests	Yes	Except that § 60.8 only applies to stationary CI ICE with a displacement of ≥30 liters per cylinder and engines that are not certified.
§ 60.9	Availability of information	Yes.	
§ 60.10	State Authority	Yes.	
§ 60.11	Compliance with standards and maintenance requirements.	No	Requirements are specified in subpart IIII.
§ 60.12	Circumvention	Yes.	
§ 60.13	Monitoring requirements	Yes	Except that § 60.13 only applies to stationary CI ICE with a displacement of ≥30 liters per cylinder.
§ 60.14	Modification	Yes.	
§ 60.15	Reconstruction	Yes.	
§ 60.16	Priority list	Yes.	
§ 60.17	Incorporations by reference	Yes.	
§ 60.18	General control device requirements	No.	
§ 60.19	General notification and reporting requirements.	Yes.	

Appendix E

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES (CONTINUED)

Subpart ZZZZ—National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What This Subpart Covers

Emission Limitations

General Compliance Requirements

Testing and Initial Compliance Requirements

Continuous Compliance Requirements

Notifications, Reports, and Records

Other Requirements and Information

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

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.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008]

§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) [illegible] struction 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(h) 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) A stationary RICE which is an existing spark ignition 4 stroke rich burn (4SRB) stationary RICE located at an area source of HAP emissions; an existing spark ignition 4SRB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions; an ex-

compression ignition emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions; an existing spark ignition emergency or limited use stationary RICE; an existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions; an existing stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; or an existing stationary residential, commercial, or institutional emergency stationary RICE located at an area source of HAP emissions, does not have to meet the requirements of this subpart and of subpart A of this part. No initial notification is necessary.

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that is a new or reconstructed stationary RICE located at an area source, or is a new or reconstructed stationary RICE located at a major source of HAP emissions and is a spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of less than 500 brake HP, a spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of less than 250 brake HP, or a 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP, a stationary RICE with a site rating of less than or equal to 500 brake HP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP, or a compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP, 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.

[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]

§ 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 and operating limitations 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 and operating limitations no later than May 3, 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.

(5) 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]

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

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 limita-

§ 63.6601 What emission limitations must I meet if I own or operate a 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less 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. 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]

§ 63.6602 What emission limitations must I meet if I own or operate an existing stationary CI 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 CI 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 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.

[75 FR 9675, Mar. 3, 2010]

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary CI 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 CI 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 which apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the Federal Aid Highway System (FAHS) you do not have to meet the numerical CO emission limitations specified in Table 2d to this subpart. Existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the FAHS must meet the management practices that are shown for stationary non-emergency CI RICE less than or equal to 300 HP in Table 2d to this subpart.

[75 FR 9675, Mar. 3, 2010]

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

If you own or operate an existing non-emergency 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 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.

[75 FR 9675, Mar. 3, 2010]

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 and operating limitations 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]

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 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

and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008]

§ 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 CI 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 CI 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]

§ 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.

(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.

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

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

Where:

C_i = concentration of CO or formaldehyde at the control device inlet,

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

R = percent reduction of CO or formaldehyde emissions.

(2) You must normalize the carbon monoxide (CO) 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_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 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:

$$F_o = \frac{0.209\, F_d}{F_c} \qquad \text{(Eq. 2)}$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate 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, dsm³/J (dscf/10⁶ Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 3)}$$

Where:

X_{CO_2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2 correction value, percent.

(iii) Calculate the NOx and SO_2 gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \qquad \text{(Eq. 4)}$$

Where:

$\%CO_2$ = Measured 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 estab- 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 emis-

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 accuracy in percentage of true value must be provided.

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

§ 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 oxygen or CO_2 at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.

(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_2 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 § 63.8.

(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 an existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions, an existing stationary emergency RICE, or an existing stationary RICE located at

an area source of HAP emissions not subject to any numerical emission standards shown in Table 2d to this subpart, you must operate and maintain the stationary RICE and aftertreatment 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.

(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 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 (g)(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 not accessible by the FAHS do not have to meet the requirements of paragraph (g) in this section.

(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 or existing stationary engine, you must minimize 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 engine that is subject to the work, operation or management practices in items 1, 2, or 4 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 before continuing to use the engine. 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 9678, Mar. 3, 2010]

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

(a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.

(b) During the initial performance

results of the initial compliance demonstration according to the requirements in § 63.6595.

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, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously at all times that the stationary RICE is operating.

(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.

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

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation 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) [Reserved]

(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 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, a new emergency stationary RICE with a site rating of more than

500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the engine according to the conditions described in paragraphs (f)(1) through (4) of this section.

(1) For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

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

(3) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. 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 year.

(4) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving 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; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(4), as long as the power provided by the financial arrangement is limited to emergency power.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20457, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010]

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 CI 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 CI 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 CI RICE less than 100 HP, an existing stationary emergency CI RICE, or an existing stationary CI RICE that is not subject to any numer-

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.

(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 15, 2008.

(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).

(i) 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).

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010]

§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 (5) 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

(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.

(i) 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.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010]

§ 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 CI RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency CI RICE.

(3) An existing stationary CI 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) or (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 and the time the engine was operated as part of demand response.

(1) An existing emergency stationary CI 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 CI 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]

§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

RICE, an existing SLB 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:

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.

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).

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 or 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_2.

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 internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, *etc.* Stationary CI ICE used for peak shaving are not considered emergency stationary ICE. Stationary CI ICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). Emergency stationary RICE with a site-rating of more than 500 brake HP located at a major source of HAP emissions that were installed prior to June 12, 2006, may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance. Emergency stationary RICE with a site-rating of more than 500 brake HP located at a major source of HAP emissions that were installed prior to June 12, 2006, may also operate an additional 50 hours per year in non-emergency situations. All other emergency stationary RICE must comply with the requirements specified in §63.6640(f).

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

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.

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_2.

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 nonhydrocarbon 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_X) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_X, CO, and volatile organic compounds (VOC) into CO_2, 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 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). 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_3H_8.

Residential/commercial/institutional emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or residences, commercial establishments such as office buildings, hotels, or stores, or institutional establishments such as medical centers, research centers, and institutions of higher education.

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_x (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

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 nonroad 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 PPPPP 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]

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 for existing, new and reconstructed 4SRB 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. 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, b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2.	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.[1]

[1] 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]

TABLE 1b TO SUBPART ZZZZ OF PART 63—OPERATING 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, 63.6630 and 63.6640, you must comply with the following operating emission 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...
1. 4SRB stationary RICE 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	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 is greater than or equal to 750 °F and less than or equal to 1250 °F.
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and using NSCR.	
2. 4SRB stationary RICE 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.
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and not using NSCR.	

[73 FR 3607, Jan. 18, 2008]

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_2. 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_2 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.[1]
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_2.	
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_2.	

[1] 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 COMPRESSION IGNITION STATIONARY RICE >500 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS, EXISTING NON-EMERGENCY COMPRESSION IGNITION STATIONARY RICE >500 HP, AND NEW AND RECONSTRUCTED 4SLB BURN STATIONARY RICE ≥250 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS

As stated in §§63.6600, 63.6601, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed lean burn and existing, new and reconstructed compression ignition stationary RICE:

For each . . .	You must meet the following operating limitation . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE 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.[1]
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst	Comply with any operating limitations approved by the Administrator.

[1] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[75 FR 9680, Mar. 3, 2010]

TABLE 2C TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR EXISTING COMPRESSION IGNITION STATIONARY RICE LOCATED AT MAJOR SOURCES OF HAP EMISSIONS

As stated in §§63.6600 and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency CI and black start CI[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	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.[4]
2. Non-Emergency, non-black start CI < 100 HP.	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
3. Non-Emergency, non-black start CI RICE 100≤HP≤300 HP.	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2.	
4. Non-Emergency, non-black start CI 300<HP≤500.	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
5. Non-Emergency, non-black start CI>500 HP.	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	

[1] 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.

[2] 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 in Table 2c of this subpart.

[3] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9681, Mar. 3, 2010]

TABLE 2D TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR EXISTING COMPRESSION IGNITION STATIONARY RICE LOCATED AT AREA SOURCES OF HAP EMISSIONS

As stated in §§ 63.6600 and 63.6640, you must comply with the following emission and operating limitations for existing compression ignition stationary RICE:

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 ≤ 300 HP.	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[1] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	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.
2. Non-Emergency, non-black start CI 300<HP≤500.	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI > 500 HP.	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
4. Emergency CI and black start CI[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	

[1] 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 in Table 2d of this subpart.

[2] If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform

[75 FR 9681, Mar. 3, 2010]

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. 2SLB and 4SLB stationary RICE with a brake horsepower >500 located at major sources and new or reconstructed CI stationary RICE with a brake horsepower >500 located at major sources.	Reduce CO emissions and not using a CEMS.	Conduct subsequent performance tests semiannually.[1]
2. 4SRB stationary RICE with a brake horsepower ≥5,000 located at major sources.	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]
3. Stationary RICE with a brake horsepower >500 located at major sources.	Limit the concentration of formaldehyde in the stationary RICE exhaust.	Conduct subsequent performance tests semiannually.[1]
4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are not limited use stationary RICE.	Limit or reduce CO or formaldehyde emissions.	Conduct subsequent performance tests every 8,760 hrs or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are limited use stationary RICE.		Conduct subsequent performance tests every 8,760 hrs or 5 years, whichever comes first.

[1] 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.

[75 FR 9682, Mar. 3, 2010]

TABLE 4 TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR PERFORMANCE TESTS

As stated in §§63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE for existing sources:

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. Measure the O_2 at the inlet and outlet of the control device; and	(1) Portable CO and O_2 analyzer.	(a) Using ASTM D6522–00 (2005)[a] (incorporated by reference, see §63.14). Measurements to determine O_2 must be made at the same time as the measurements for CO concentration.
		II. Measure the CO at the inlet and the outlet of the control device.	(1) Portable CO and O_2 analyzer.	(a) Using ASTM D6522–00 (2005)[a,b] (incorporated by reference, see §63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O_2, dry basis. (b) Sampling sites must be located at the inlet and outlet of the control device.
2. 4SRB stationary RICE.	a. Reduce formaldehyde emissions.	I. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i).	
		II. Measure O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005).	(a) Measurements to determine O_2 concentration must be made at the same time as the measurements for formaldehyde 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, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03.	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		iv. Measure formaldehyde at the inlet and the outlet of the control device.	(1) Method 320 of 40 CFR part 63, appendix A; or ASTM D6348–03[a], 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.	(a) Formaldehyde concentration must be at 15 percent O_2, 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 formaldehyde or CO in the stationary RICE exhaust.	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i).	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2 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, or ASTM Method D6522–00 (2005).	(a) Measurements to determine O_2 concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03.	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 of 40 CFR part 63, appendix A; or ASTM D6348–03[a], 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.	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE.	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005)[a], Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.	(a) CO concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

[a] You may also use Methods 3A and 10 as options in 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. ASTM–D6522–00 (2005) may be used to test both CI and SI stationary RICE.

[b] You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.

[c] 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.

[75 FR 9682, Mar. 3, 2010]

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations and Operating Limitations

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. 2SLB and 4SLB stationary RICE >500 HP located at a major source and new or reconstructed CI stationary RICE >500 HP located at a major source	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS.	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. 2SLB and 4SLB stationary RICE >500 HP located at a *major source* and *new* or *reconstructed* CI stationary RICE >500 HP located at a *major source*.	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 § 63.8625(b); and iii. You have recorded the approved operating *parameters* (if any) during the initial performance test.
3. 2SLB and 4SLB stationary RICE >500 HP located at a *major source* and *new* or *reconstructed* CI stationary RICE >500 HP located at a *major source*.	a. Reduce CO emissions, and using a CEMS.	i. You have installed a CEMS to continuously *monitor* CO and either O_2 or CO_2 at both the inlet and outlet of the oxidation catalyst according to the requirements in § 63.8625(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 § 63.8620 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.
4. 4SRB stationary RICE >500 HP located at a *major source*.	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; and ii. You have installed a CPMS to continuously *monitor* catalyst inlet temperature according to the *requirements* in § 63.8625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
5. 4SRB stationary RICE >500 HP located at a *major source*.	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; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.8625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
6. Stationary RICE >500 HP located at a *major source*.	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_2, 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 § 63.8625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
7. Stationary RICE >500 HP located at a major source.	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR.	i. The average formaldehyde concentration, corrected to 15 percent O_2, 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 §63.8525(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
8. Existing stationary non-emergency RICE ≥100 HP located at a major source, existing non-emergency CI stationary RICE >500 HP, and existing stationary non-emergency RICE ≥100 HP located at an area source.	a. Reduce CO or formaldehyde 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.
9. Existing stationary non-emergency RICE ≥100 HP located at a major source, existing non-emergency CI stationary RICE >500 HP, and existing stationary non-emergency RICE ≥100 HP located at an area source.	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_2, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.

[75 FR 9684, Mar. 3, 2010]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations and Operating Limitations

As stated in §63.8540, you must continuously comply with the emissions and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. 2SLB and 4SLB stationary RICE >500 HP located at a major source and CI stationary RICE >500 HP located at a major source.	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 ; and ii. Collecting the catalyst inlet temperature data according to §63.8525(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 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. 2SLB and 4SLB stationary RICE >500 HP located at a major source and CI stationary RICE >500 HP located at a major source.	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 ; and ii. Collecting the approved operating parameter (if any) data according to §63.8625(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 . . .
3. 2SLB and 4SLB stationary RICE >500 HP located at a major source and CI stationary RICE >500 HP located at a major source.	a. Reduce CO emissions and using a CEMS.	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period; and 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.
4. 4SRB stationary RICE >500 HP located at a major source.	a. Reduce formaldehyde emissions and using NSCR.	i. Collecting the catalyst inlet temperature 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 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. 4SRB stationary RICE >500 HP located at a major source.	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.
6. 4SRB stationary RICE with a brake HP ≥5,000 located at a major source.	Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved.[a]
7. Stationary RICE >500 HP located at a major source.	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[a]; 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 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. Stationary RICE >500 HP located at a major source.	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[a]; 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.
8. Existing stationary CI RICE not subject to any numerical emission limitations.	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the 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.
10. Existing stationary RICE >500 HP that are not limited use stationary RICE, except 4SRB >500 HP located at major sources.	a. Reduce CO or formaldehyde emissions; or, b. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust.	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.
11. Existing limited use stationary RICE >500 HP that are limited use CI stationary RICE.	a. Reduce CO or formaldehyde emissions; or, b. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust.	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.

[a] 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 semi-annual performance tests.

[75 FR 9685, Mar. 3, 2010]

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:

You must submit a(n) . . .	The report must contain . . .	You must submit the report . . .
1. 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 CI 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 CI RICE subject to numerical emission limitations.
	b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were	i. Semiannually according to the requirements in §63.6650(b).

You must submit a(n) . . .	The report must contain . . .	You must submit the report . . .
2. Report	c. If you had a malfunction during the reporting period, the information in § 63.8650(c)(4).	i. Semiannually according to the requirements in § 63.8650(b).
	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 § 63.8650.
	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.

[75 FR 9687, Mar. 3, 2010]

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.
§ 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.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.7(a)(2)	Conduct of performance tests and reduction of data.	Yes	Subpart ZZZZ specifies test methods at §63.8820.
§63.7(a)(3)	Test run duration	Yes.	
§63.7(a)(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 §63.8825.
§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.	
§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	Yes.	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan.	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements.	Yes.	
§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 that §63.8(e) only applies as specified in §63.8845.	Except for §63.8(e)(5)(ii), which applies to COMS.
§63.8(f)(1)–(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.8845.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.8845.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§ 63.8835 and 63.8840.
§63.9(a)	Applicability and State delegation of notification requirements.	Yes.	
§63.9(b)(1)–(5)	Initial notifications	Yes. Except that §63.9(b) only applies as specified in §63.8845.	Except that §63.9(b)(3) is reserved.
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.8845.
§63.9(d)	Notification of special compliance requirements for new sources.	Yes	Except that §63.9(d) only applies as specified in §63.8845.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.8845.
§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

General provisions citation	Subject of citation	Applies to subpart	Explanation
		Except that § 63.9(g) only applies as specified in § 63.8545.	
§ 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 § 63.8545.
§ 63.9(i)	Adjustment of submittal deadlines	Yes.	
§ 63.9(j)	Change in previous information	Yes.	
§ 63.10(a)	Administrative provisions for record-keeping/reporting.	Yes.	
§ 63.10(b)(1)	Record retention	Yes.	
§ 63.10(b)(2)(i)–(iv)	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.	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by reference	Yes.	
§ 63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010]

Subpart AAAAA—National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

SOURCE: 69 FR 415, Jan. 5, 2004, unless otherwise noted.

WHAT THIS SUBPART COVERS

§ 63.7080 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for lime manufacturing plants. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.7081 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a lime manufacturing plant (LMP) that is a major source, or that is located at, or is part of, a major source of hazardous air pollutant (HAP) emissions, unless the LMP is located at a kraft pulp mill, soda pulp mill, sulfite pulp mill, beet sugar manufacturing plant, or only processes sludge containing calcium

CERTIFICATE OF SERVICE

I, Cynthia Hook, hereby certify that a copy of this permit has been mailed by first class mail to Nucor Corporation (Nucor Steel, Arkansas), P.O. Box 30, Armorel, AR, 72310, on this 6th day of February, 2013.

Cynthia Hook, ASIII, Air Division