



PART 70 PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth herein.

Operating Permit Number: OP2017-033
Expiration Date: APR 07 2022
Installation ID: 169-0004
Project Number: 2010-06-074

Installation Name and Address

Installation Management Command and Fort Leonard Wood
1334 1st Street
Fort Leonard Wood, MO 65473
Pulaski County

Installation Description:

U.S. Army Garrison and Fort Leonard Wood is a federal military installation located on approximately 63,000 acres of land in Pulaski County. The primary purpose of the installation is to train enlisted and officer personnel in basic combat training, military engineering and motor vehicle operations. This includes: bridging, demolitions, placement and removal of land mines; placement and breaching of obstacles designated to prevent movement; and construction and maintenance of buildings, utility systems and roads. Training is also provided in operations, repair, and maintenance of heavy equipment, and tracked/wheeled vehicles.

The installation is a major source of CO, SO_x, VOC, NO_x, PM₁₀, and PM_{2.5} and a synthetic minor source of HAP.

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Prepared by
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Operating Permit Unit

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Director or Designee
Department of Natural Resources

APR 07 2017

Effective Date

Table of Contents

I. INSTALLATION DESCRIPTION AND EQUIPMENT LISTING	6
II. PLANT WIDE EMISSION LIMITATIONS.....	35
PERMIT CONDITION PW001	35
10 CSR 10-6.060 Construction Permits Required.....	35
Construction Permit 082002-024D, Issued January 1, 2009.....	35
PERMIT CONDITION PW002.....	43
10 CSR 10-6.065(6)(C)2.A Voluntary Permit Condition.....	43
III. EMISSION UNIT SPECIFIC EMISSION LIMITATIONS	45
PERMIT CONDITION 001	45
10 CSR 10-6.060 Construction Permits Required.....	45
Construction Permit 032015-007, Issued March 6, 2015.....	45
Construction Permit 032015-017A, Issued May 11, 2016.....	45
PERMIT CONDITION 002.....	46
10 CSR 10-6.060 Construction Permits Required.....	46
Construction Permit 012015-001, Issued January 16, 2015.....	46
PERMIT CONDITION 003.....	47
10 CSR 10-6.060 Construction Permits Required.....	47
Construction Permit 062003-015A, Issued July 18, 2013.....	47
PERMIT CONDITION 004.....	47
10 CSR 10-6.060 Construction Permits Required.....	47
Construction Permit 052013-012, Issued May 23, 2013.....	47
PERMIT CONDITION 005.....	48
10 CSR 10-6.060 Construction Permits Required.....	48
Construction Permit 0995-017B, Issued March 8, 2013.....	48
PERMIT CONDITION 006.....	51
10 CSR 10-6.060 Construction Permits Required.....	51
Construction Permit 092008-001, Issued September 3, 2008.....	51
PERMIT CONDITION 007.....	52
10 CSR 10-6.065(6)(C)2.A Voluntary Permit Condition	52
PERMIT CONDITION 008.....	70
10 CSR 10-6.060 Construction Permits Required.....	70
Construction Permit 052001-011, Issued April 11, 2001.....	70
PERMIT CONDITION 009.....	70
10 CSR 10-6.060 Construction Permits Required.....	70
Construction Permit 052001-010, Issued April 11, 2001.....	70
PERMIT CONDITION 010.....	71
10 CSR 10-6.060 Construction Permits Required.....	71
Construction Permit 0392-011, Issued March 18, 1992.....	71
PERMIT CONDITION 011.....	72
10 CSR 10-6.070 New Source Performance Regulations	72
40 CFR Part 60, Subpart Dc – Standards of Performance for Small-Industrial-Commercial-Institutional Steam Generating Units.....	72
PERMIT CONDITION 012.....	74
10 CSR 10-6.070 New Source Performance Regulations	74
40 CFR Part 60, Subpart I – Standards of Performance for Hot Mix Asphalt Facilities	74

PERMIT CONDITION 013.....	75
10 CSR 10-6.070 New Source Performance Regulations	75
40 CFR Part 60, Subpart I – Standards of Performance for Hot Mix Asphalt Facilities	75
40 CFR Part 64 – Compliance Assurance Monitoring.....	75
PERMIT CONDITION 014.....	78
10 CSR 10-6.070 New Source Performance Regulations	78
40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.....	78
PERMIT CONDITION 015.....	80
10 CSR 10-6.070 New Source Performance Regulations	80
40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.....	80
PERMIT CONDITION 016.....	84
10 CSR 10-6.070 New Source Performance Regulations	84
40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.....	84
PERMIT CONDITION 017.....	88
10 CSR 10-6.070 New Source Performance Regulations	88
40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.....	88
PERMIT CONDITION 018.....	91
10 CSR 10-6.070 New Source Performance Regulations	91
40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.....	91
PERMIT CONDITION 019.....	94
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	94
40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.....	94
PERMIT CONDITION 020.....	99
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	99
40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.....	99
PERMIT CONDITION 021.....	102
10 CSR 10-6.070 New Source Performance Regulations	102
40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.....	102
PERMIT CONDITION 022.....	115
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	115
40 CFR Part 63, Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutant for Source Category: Gasoline Dispensing Facilities	115
PERMIT CONDITION 023.....	123
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants	123
PERMIT CONDITION 024.....	125
10 CSR 10-6.261 Control of Sulfur Dioxide Emissions	125
PERMIT CONDITION 025.....	127
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds	127
10 CSR 10-6.261 Control of Sulfur Dioxide Emissions	127
PERMIT CONDITION 026.....	129
10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes	129
PERMIT CONDITION 027.....	129
10 CSR 10-6.065(6)(C)2.A Voluntary Permit Condition.....	129

PERMIT CONDITION 028.....	131
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	131
40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.....	131
PERMIT CONDITION 029.....	139
10 CSR 10-6.070 New Source Performance Regulations	139
40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.....	139
PERMIT CONDITION 030.....	141
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds	141
PERMIT CONDITION 031.....	142
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds.....	142
PERMIT CONDITION 032.....	143
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds.....	143
PERMIT CONDITION 033.....	145
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds.....	145
PERMIT CONDITION 034.....	145
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds.....	145
PERMIT CONDITION 035.....	146
10 CSR 10-6.060 Construction Permits Required.....	146
Construction Permit 0794-011, Issued July 1, 1994.....	146
IV. CORE PERMIT REQUIREMENTS	147
V. GENERAL PERMIT REQUIREMENTS.....	153
VI. ATTACHMENTS	158
ATTACHMENT A.....	159
BMPs.....	159
ATTACHMENT B.....	160
Construction Permit 032015-007A NO _x Limit.....	160
ATTACHMENT C.....	161
Construction Permit 012015-001 VOC Limit.....	161
ATTACHMENT D.....	162
Abbreviations and Acronyms.....	162
ATTACHMENT E.....	163
Method 22 Opacity Observations.....	163
ATTACHMENT F.....	164
Construction Permit 0392-011 Thunderbird Rock Crushing Limit.....	164
ATTACHMENT G.....	165
Construction Permit 0995-017B PM ₁₀ Limit.....	165
ATTACHMENT H.....	166
Construction Permit 092008-001 NO _x Limit.....	166
ATTACHMENT I.....	167
Boilers, Hot Water Heaters, and Space Heaters NO _x Limit.....	167
ATTACHMENT J.....	168
Boilers, Hot Water Heaters, and Space Heaters SO _x Limit.....	168
ATTACHMENT K.....	169
HAP Emission Factors.....	169
ATTACHMENT L.....	175
Individual HAP Tracking Sheet.....	175

ATTACHMENT M	177
Combined HAP Tracking Sheet	177
ATTACHMENT N	178
Construction Permit 052001-011 VOC Limit	178
ATTACHMENT O	179
Method 9 Opacity Observations	179
ATTACHMENT P	180
Construction Permit 0794-011 Fuel Oil Tracking Sheet	180

I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

U.S. Army Garrison and Fort Leonard Wood is a federal military installation located on approximately 63,000 acres of land in Pulaski County. The primary purpose of the installation is to train enlisted and officer personnel in basic combat training, military engineering and motor vehicle operations. This includes: bridging, demolitions, placement and removal of land mines; placement and breaching of obstacles designated to prevent movement; and construction and maintenance of buildings, utility systems and roads. Training is also provided in operations, repair, and maintenance of heavy equipment, and tracked/wheeled vehicles.

The installation is a major source of CO, SO_x, VOC, NO_x, PM₁₀, and PM_{2.5} and a synthetic minor source of HAP.

The installation is on the list of Named Installations at 10 CSR 10-6.020(3)(B), Table 2 Items #21 “fossil-fuel boiler (or combination thereof) totaling more than 250 MMBtu/hr heat input” and #27 “Any other stationary source category which, as of August 7, 1980, is being regulated under §111 or §112 of the Act”; therefore, fugitive emissions are counted towards major source applicability.

Reported Air Pollutant Emissions, tons per year					
Pollutants	2015	2014	2013	2012	2011
PM ₁₀	3.23	3.62	3.28	3.21	3.41
PM _{2.5}	1.78	2.26	1.92	1.84	0.53
SO _x	0.19	0.21	2.99	4.68	3.28
NO _x	40.42	50.47	44.46	45.43	46.23
VOC	3.26	3.39	2.70	8.03	8.87
CO	13.80	20.22	15.17	15.27	15.31
HAP	0.02	0.03	0.01	0.01	0.005

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation that emits air pollutants and that are identified as having unit-specific emission limitations. These emission sources are also subject to the plantwide emission limitations.

Asphalt Plant		
Emission Source	Description	Applicable Requirement(s)
051A	Aggregate Handling Bins, 184 tph	NSPS I, 10 CSR 10-6.400
052B	Aggregate Handling Conveyor, 552 tph	
053C	Vibrating Screen, 184 tph	
054D	Drum Dryer, 50 MMBtu/hr Fuel Oil #2, 200 tph	Construction Permits 032015-007 and 032015-007A, NSPS I, CAM, 10 CSR 10-6.260, 10-CSR 10-6.261
055E	Plant Loadout, 200 tph	NSPS I
056F	Silo Loading, 200 tph	

Asphalt Plant		
Emission Source	Description	Applicable Requirement(s)
057G	Asphalt Heater, 2.2 MMBtu/hr Fuel Oil #2	Construction Permits 032015-007 and 032015-007A, NSPS I, 10 CSR 10-6.260, 10 CSR 10-6.261
058H	Storage Piles, 184 tph, 0.17424 VMT/hr, 1 acre	Construction Permit 032015-007
059I	Unpaved Haul Road, 0.46597 VMT/hr	
060J	Cummins Diesel Generator, 1,207 HP	Construction Permit 032015-007A, NSPS IIII, 10 CSR 10-6.260
061K	Cummins Diesel Generator, 369 HP	

Paint Booths		
Emission Source	Description	Applicable Requirement(s)
8	Bldg 5265 Furniture Paint Booth, 0.07 gal/hr	Construction Permit 012015-001, 10 CSR 10-6.220, Voluntary Condition
9	Bldg 5265/5266 Vehicle Paint Booths, 0.818 gal/hr	
30	Bldg 5138 Paint Booth, 4.77 gal/hr	

Cedar Rapids Rock Crushing Plant		
Emission Source	Description	Applicable Requirement(s)
EU0001	Cedar Rapids Truck Loading, 150 tph	Construction Permit 0995-017B, 10 CSR 10-6.220
EU0002	Cedar Rapids Scalping Screen, 150 tph	
EU0003	Cedar Rapids Primary Crusher, 150 tph	
EU0004	Cedar Rapids (3) Conveyors and a Hopper, 600 tph	
EU0005	Cedar Rapids Primary Screening, 300 tph	
EU0006	Cedar Rapids Secondary Crushing, 150 tph	
EU0007	Cedar Rapids (3) Conveyors from Secondary Crusher, 450 tph	
EU0008	Cedar Rapids Secondary Screening, 150 tph	
EU0009	Cedar Rapids (7) Conveyors/Stackers, 300 tph	
EU0010	Cedar Rapids Tertiary Screening, 150 tph	
EU0011	Cedar Rapids Truck Unloading at Feeder, 150 tph	Construction Permit 0995-017B
Q631P	Cummins Diesel Generator, 240 HP	Construction Permit 0995-017B, MACT ZZZZ, 10 CSR 10-6.260, 10 CSR 10-6.261
Q631Q	Cummins Diesel Generator, 240 HP	
Q631R	Cummins Diesel Generator, 240 HP	
EU0014	Cummins Primary Crusher Engine, 215 HP	Construction Permit 0995-017B, MACT ZZZZ, 10 CSR 10-6.260
EU0015	Cummins Secondary Crusher Engine, 315 HP	
EU0016	Cummins Tertiary Crusher Engine, 215 HP	Construction Permit 0995-017B, MACT ZZZZ, 10 CSR 10-6.260, 10 CSR 10-6.261
EU0017	Cummins Water Pump Engine, 100 HP	
23J	Cedar Rapids Unpaved Haul Road Return to Pit, 0.01 miles	Construction Permit 0995-017B

Thunderbird Rock Crushing Plant		
Emission Source	Description	Applicable Requirement(s)
023C	Thunderbird Loading, 150 tph	Construction Permit 0392-011, 10 CSR 10-6.220
023C	Thunderbird Unloading, 150 tph	Construction Permit 0392-011
023D	Thunderbird Scalping Screen, 150 tph	Construction Permit 0392-011, 10 CSR 10-6.220
023E	Thunderbird Primary Crushing, 150 tph	
023F	Thunderbird Primary Screening (3-Deck Screening), 150 tph	
023G	Thunderbird (9) Conveyors, 1350 tph	
023H	Thunderbird Secondary Crushers, 150 tph	
23J	Thunderbird Unpaved Haul Road Return to Pit, 0.01 miles	Construction Permit 0392-011

Cedar Rapids Rock Crushing Plant & Thunderbird Rock Crushing Plant Shared Sources		
Emission Source	Description	Applicable Requirement(s)
23B	Drilling: Cedar Rapids 150 tph, Thunderbird 150 tph	Construction Permit 0995-017B
23	Unpaved Haul Road Loadout from Pit: Cedar Rapids 0.25 miles, Thunderbird 0.25 miles	
23A	Storage Pile 5 acres: Cedar Rapids 150 tph & 0.25 VMT, Thunderbird 150 tph & 0.25 VMT	

BOILERS						
Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel Type	Manufacturer	Installation Date	Applicable Requirement(s)
100	3	1 each	Natural Gas	Hydrotherm	Unknown	Voluntary Condition
181	3	1 each	Propane	Hydrotherm	2008	
311A	1	10.25	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Kewanee	1984	Voluntary Condition, 10 CSR 10-6.220, 10 CSR 10-6.260, 10 CSR 10-6.261, Construction Permit 0794-011
311A	1	25.25	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Hurst	2012	Construction Permit 052013-012, Voluntary Condition, NSPS Dc, 10 CSR 10-6.220, 10 CSR 10-6.260, 10 CSR 10-6.261

BOILERS						
Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel Type	Manufacturer	Installation Date	Applicable Requirement(s)
311A	1	16.8	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Superior	2005	Voluntary Condition, NSPS Dc, 10 CSR 10-6.220, 10 CSR 10-6.260, 10 CSR 10-6.261
312	2	1.5 each	Natural Gas	Cleaver Brooks	2010	Voluntary Condition
315	3	0.5 each	Natural Gas	Mod-Con	2011	
330	2	0.97 each	Natural Gas	Aerco (KC Series)	2012	
404	2	0.445 each	Natural Gas	Fulton	1995	
406	1	<10	Natural Gas	Lochinvar	Unknown	
406	1	<10	Natural Gas	Lochinvar	Unknown	
450	2	0.133 each	Natural Gas	Hydrotherm	Unknown	
470	2	0.3 each	Natural Gas	Hydrotherm	1995	
470	4	1 each	Natural Gas	Hydrotherm	2005	
486	1	0.5	Natural Gas	Mod-Con	2011	
490	2	0.15 each	Natural Gas	Lochinvar	2014	
493	2	1 each	Natural Gas	Fuptera Fusion	2011	
498	1	1.5	Natural Gas	Ray-Pak	2012	
499	2	0.5 each	Natural Gas	Lochinvar	2015	
580	1	0.5	Natural Gas	Mod-Con	2011	
590	1	0.7	Propane	HB Smith	2004	
606	1	0.675	Natural Gas	Fulton	1992	
607	1	1	Natural Gas	Fulton	1992	
607	2	0.675 each	Natural Gas	HB Smith	1992	
608	3	0.5 each	Natural Gas	Knight/Lochinvar	2011	
615	1	0.129	Natural Gas	Parker	1994	
616	1	0.75	Natural Gas	Patterson/Kelley	2011	
625	2	0.5 each	Natural Gas	Mod-Con	2011	
626	2	0.286 each	Natural Gas	Knight/Lochinvar	2011	
627	4	0.5 each	Natural Gas	Mod. Con	2011	
628	4	0.5 each	Natural Gas	Mod Con	2011	
629	4	0.5 each	Natural Gas	MOD CON	2011	
630	4	1 each	Natural Gas	Hydrotherm	2008	
630	2	1.47 each	Natural Gas	Columbia	2001	
631	1	0.5	Natural Gas	Knight/Lochinvar	2015	
632	4	0.3 each	Natural Gas	Hydrotherm	2001	
633	2	0.286 each	Natural Gas	Knight/lochinvar	2011	
634	4	0.5 each	Natural Gas	MOD CON	2011	
635	4	0.5 each	Natural Gas	MOD CON	2011	
636	2	0.286 each	Natural Gas	Knight/lochinvar	2011	
637	2	0.5 each	Natural Gas	Knight/lochinvar	2011	
638	2	0.151 each	Natural Gas	Knight/Lochinvar	2011	
639	2	0.286 each	Natural Gas	Knight/Lochinvar	2011	
640	2	1.526 each	Natural Gas	Smith	2001	

BOILERS						
Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel Type	Manufacturer	Installation Date	Applicable Requirement(s)
650	2	0.211 each	Natural Gas	Knight/Lochinvar	2010	Voluntary Condition
651	6	0.3 each	Natural Gas	Hydrotherm	2001	
652	6	0.3 each	Natural Gas	Hydrotherm	2001	
653	4	1 each	Natural Gas	Hydrotherm	2008	
653	2	1.47 each	Natural Gas	Columbia	2001	
654	6	0.3 each	Natural Gas	Hydrotherm	2001	
655	2	0.286 each	Natural Gas	Knight/lochinvar	2011	
656	4	0.15 each	Natural Gas	Hydrotherm	2001	
657	4	1 each	Natural Gas	Hydrotherm	2008	
658	2	0.211 each	Natural Gas	Lochinvar	2010	
659	6	0.3 each	Natural Gas	Hydrotherm	2001	
660	6	0.3 each	Natural Gas	Hydrotherm	2001	
663	3	0.175 each	Propane	Weil McLain	1989	
730	4	0.5 each	Natural Gas	MOD-CON	2011	
731	4	0.5 each	Natural Gas	MOD-CON	2011	
732	2	0.211 each	Natural Gas	Lochinvar	2010	
733	2	0.286 each	Natural Gas	Knight/Lochinvar	2011	
734	2	0.286 each	Natural Gas	Knight/Lochinvar	2011	
735	3	1 each	Natural Gas	Hydrotherm	2008	
735	2	1.47 each	Natural Gas	Columbia	2001	
736	7	0.5 each	Natural Gas	MOD-CON	2011	
737	2	0.7 each	Natural Gas	Armor	2014	
737	2	0.6 each	Natural Gas	Knight/Lochinvar	2014	
738	2	0.7 each	Natural Gas	Armor	2014	
738	2	0.6 each	Natural Gas	Knight/Lochinvar	2014	
739	3	1 each	Natural Gas	Hydrotherm	2008	
739	2	1.47 each	Natural Gas	Columbia	2001	
740	2	0.5 each	Natural Gas	Mod-Con	2014	
741	2	0.286 each	Natural Gas	Knight/Lochinvar	2011	
742	3	0.3 each	Natural Gas	Hydrotherm	2001	
743	2	0.151 each	Natural Gas	Knight/Lochinvar	2011	
744	2	0.286 each	Natural Gas	Knight/Lochinvar	2011	
746	1	1.526	Natural Gas	Smith	1999	
746	2	1.526 each	Natural Gas	Smith	2008	
747	2	0.601 each	Natural Gas	Kinght Lochinvar	2013	
747	2	0.701 each	Natural Gas	Armor Lochinvar	2013	
748	4	0.5 each	Natural Gas	Mod-Con	2011	
749	2	0.3 each	Natural Gas	Hydrotherm	1999	
750	2	0.211 each	Natural Gas	Knight/Lochinvar	2011	
751	2	0.286 each	Natural Gas	Knight/Lochinvar	2011	
752	2	0.286 each	Natural Gas	Knight/Lochinvar	2011	
753	2	0.211 each	Natural Gas	Knight/Lochinvar	2011	
754	3	1 each	Natural Gas	Hydrotherm	2008	
754	2	0.8 each	Natural Gas	Hurst	1999	
755	2	0.601 each	Natural Gas	Kinght Lochinvar	2013	

BOILERS						
Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel Type	Manufacturer	Installation Date	Applicable Requirement(s)
755	2	0.701 each	Natural Gas	Armor Lochinvar	2013	Voluntary Condition
756	2	0.601 each	Natural Gas	Kinght Lochinvar	2013	
756	2	0.701 each	Natural Gas	Armor Lochinvar	2013	
757	2	0.601 each	Natural Gas	Kinght Lochinvar	2013	
757	2	0.701 each	Natural Gas	Armor Lochinvar	2013	
768	1	0.5	Propane	Mod-Con	2013	
786	1	0.725	Propane	HB Smith	2003	
804	3	0.5 each	Natural Gas	Mod-Con	2011	
805	2	0.5 each	Natural Gas	Mod-Con	2011	
815	1	<10	Natural Gas	Knight/Lochinvar	Unknown	
815	1	<10	Natural Gas	Knight/Lochinvar	Unknown	
815	1	<10	Natural Gas	Knight/Lochinvar	Unknown	
815	1	<10	Natural Gas	Knight/Lochinvar	Unknown	
816	2	0.601 each	Natural Gas	Knight/Lochinvar	2011	
816	2	0.601 each	Natural Gas	Armor/ Lochinvar	2011	
817	2	0.601 each	Natural Gas	Knight/ Lochinvar	2011	
817	2	0.601 each	Natural Gas	Armor/ Lochinvar	2011	
818	2	0.601 each	Natural Gas	Knight/ Lochinvar	2011	
818	2	0.601 each	Natural Gas	Armor/ Lochinvar	2011	
819	2	2 each	Natural Gas	Aerco	2010	
820	2	0.3 each	Natural Gas	Hydrotherm	2008	
820	2	2.1 each	Natural Gas	Fulton	2011	
821	1	<10	Natural Gas	Cleaver Brooks	2015	
821	1	<10	Natural Gas	Cleaver Brooks	2015	
822	2	0.211 each	Natural Gas	Knight/Lochinvar	2011	
823	1	0.15	Natural Gas	Knight/Lochinvar	2010	
824	2	0.286 each	Natural Gas	Knight/Lochinvar	2011	
825	2	0.286 each	Natural Gas	Knight/Lochinvar	2011	
826	2	1.526 each	Natural Gas	Smith	2001	
827	2	2 each	Natural Gas	AERCO	2010	
828	2	2 each	Natural Gas	Fulton	2009	
829	2	2 each	Natural Gas	Fulton	2009	
830	2	2 each	Natural Gas	Fulton	2009	
831	2	2 each	Natural Gas	Fulton	2009	
832	2	0.151 each	Natural Gas	Knight/Lochinvar	2011	
835	2	0.286 each	Natural Gas	Knight/Lochinvar	2011	
836	12	0.3 each	Natural Gas	Hydrotherm	2001	
836	2	2 each	Natural Gas	Fulton	2010	
837	6	0.3 each	Natural Gas	Hydrotherm	2001	
838	2	0.3 each	Natural Gas	Fulton	2010	
840	2	0.3 each	Natural Gas	Fulton	2010	
841	2	0.286 each	Natural Gas	Knight/Lochinvar	2011	
842	2	0.3 each	Natural Gas	Knight/Lochinvar	2011	
843	2	0.501 each	Natural Gas	Knight/Lochinvar	Unknown	
844	2	0.286 each	Natural Gas	Knight/Lochinvar	Unknown	

BOILERS						
Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel Type	Manufacturer	Installation Date	Applicable Requirement(s)
890	2	0.5 each	Natural Gas	Mod-Con	2011	Voluntary Condition
901	2	1 each	Natural Gas	Hydrotherm	2012	
902	2	1 each	Natural Gas	Hydrotherm	2012	
908	2	0.724 each	Natural Gas	Keystone	2015	
908	2	0.475 each	Natural Gas	Mod-Con	2015	
908	2	0.95 each	Natural Gas	Mod-Con	2015	
930	2	1.5 each	Natural Gas	Cleaver Brooks	2013	
932	2	1.5 each	Natural Gas	Cleaver Brooks	2013	
934	2	1.5 each	Natural Gas	Cleaver Brooks	2013	
935	2	1.5 each	Natural Gas	Cleaver Brooks	2013	
936	2	1.5 each	Natural Gas	Cleaver Brooks	2013	
937	2	1.5 each	Natural Gas	Cleaver Brooks	2013	
939	2	1.5 each	Natural Gas	Cleaver Brooks	2013	
950	2	0.5 each	Natural Gas	Fulton	2005	
961	3	0.5 each	Natural Gas	Mod-Con	2011	
964	2	0.299 each	Natural Gas	Elite	2012	
971	2	0.299 each	Natural Gas	Elite	2012	
980	2	0.399 each	Natural Gas	Elite	2015	
1000	1	2.2	Natural Gas	Burnham	2009	
1000	1	1.75	Natural Gas	Burnham	1993	
1021	1	42	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Cleaver Brooks	2010	Voluntary Condition, NSPS Dc, 10 CSR 10-6.220, 10 CSR 10-6.260, 10 CSR 10-6.261
1021	1	42	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Cleaver Brooks	2010	
1300	3	1.5 each	Natural Gas	RBI	2010	Voluntary Condition
1300	1	2	Natural Gas	Ray Pak (pool)	Unknown	
1310	1	0.3	Propane	Fulton	2008	
1350	1	0.75	Propane	Fulton	2004	
1390	1	0.106	Propane	Knight/Lochinvar	2011	
1549	1	1.0332	Propane	Columbia	2014	
1601	1	0.6	Natural Gas	HB Smith	2003	
1607	2	1 each	Natural Gas	Cleaver Brooks	2012	
1609	1	0.675	Natural Gas	Fulton	1992	
1784	2	1.5 each	Natural Gas	Ray pack	2011	
1785	2	0.211 each	Natural Gas	Unknown	2011	
1786	1	0.85	Natural Gas	Ray Pack	2011	
1787	1	0.85	Natural Gas	Ray Pack	2011	
1788	1	0.85	Natural Gas	Ray Pack	2011	
1789	1	<10	Natural Gas	Ray Pack	2013	
1789	1	<10	Natural Gas	Ray Pack	2013	
1789	2	0.6 each	Natural Gas	Hydrotherm	2013	

BOILERS						
Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel Type	Manufacturer	Installation Date	Applicable Requirement(s)
2100	2	0.6 each	Natural Gas	Hydrotherm	2010	Voluntary Condition
2105	3	2.0922 each	Natural Gas	Cleaver Brooks	2010	
2107	2	0.5 each	Natural Gas	Knight/Lochinvar	2010	
2108	3	0.5 each	Natural Gas	Lochinvar/Knight	2011	
2109	3	0.5 each	Natural Gas	Lochinvar/Knight	2011	
2109	2	0.5 each	Natural Gas	Lochinvar/Knight	2011	
2130	3	0.5 each	Natural Gas	Fulton	2006	
2130	1	<10	Natural Gas	Ray Pack	2013	
2130	1	<10	Natural Gas	Ray Pack	2013	
2215	1	2.092	Propane	Highlander	1969	
2250	1	0.5	Propane	Fulton	2003	
2273	1	0.5	Propane	Columbia	2008	
2322	1	1.1718	Propane	Kewanee	1978	
2322	2	1.1718 each	Propane	Unknown	2011	
2330	1	1.733	Propane	Smith	2008	
2369	1	23.25	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Unilux	2015	Voluntary Condition, NSPS Dc, 10 CSR 10-6.220, 10 CSR 10-6.260, 10 CSR 10-6.261
2369	1	23.25	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Unilux	2015	
3205	2	1.5 each	Natural Gas	Ray Pack	2012	Voluntary Condition
3223	2	2 each	Natural Gas	Aerco	2008	
4109	2	0.51 each	Natural Gas	Hydrotherm	2010	
5001	1	0.5	Propane	Mod-Con	2002	
5050	1	0.5	Propane	Mod-Con	2013	
5051	1	1	Propane	Superior	2014	
5052	1	0.837	Propane	Peerless	1992	
5053	6	0.3 each	Propane	Hydrotherm	2000	
5069	1	0.106	Propane	Knight/Lochinvar	2011	
5070	1	0.106	Propane	Knight/Lochinvar	2011	
5071	2	0.15 each	Propane	Elite	2014	
5072	1	0.5	Propane	Fulton	Unknown	
5074	2	1.08 each	Propane	H.B. Smith	1997	
5138	1	0.286	Natural Gas	Knight/Lochinvar	2011	
5265	4	3 each	Natural Gas	AERCO/Benchmark	Unknown	
5267	2	0.22 each	Natural Gas	Elite	2014	
5295B	2	1 each	Propane	RBI	2010	
5400	2	1 each	Natural Gas	Cleaver Brooks	Unknown	
5410	2	0.3 each	Propane	Fulton	Unknown	
5415	2	0.3 each	Propane	Fulton	2000	
5421	1	0.139	Propane	Lochinvar	2014	
5429	1	0.6	Propane	Hydrotherm	2011	

BOILERS						
Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel Type	Manufacturer	Installation Date	Applicable Requirement(s)
5429A	2	0.5 each	Propane	Mod-Con	2014	Voluntary Condition
5474	2	0.5 each	Propane	Knight/Lochinvar	2012	
5475	1	0.4	Propane	Knight/Lochinvar	2012	
5476	2	0.5 each	Propane	Knight/Lochinvar	2012	
6100	1	0.454	Natural Gas	AERCO	2011	
6100	1	0.199	Natural Gas	A O Smith	2011	
6101	2	1.5 each	Natural Gas	Knight/Lochinvar	2011	
6101	1	0.909	Natural Gas	AERCO	2011	
6102	2	1.5 each	Natural Gas	Knight/Lochinvar	2011	
6102	1	0.909	Natural Gas	AERCO	2011	
6103	2	1.5 each	Natural Gas	Knight/Lochinvar	2011	
6103	1	0.909	Natural Gas	AERCO	2011	
6104	2	1.5 each	Natural Gas	Knight/Lochinvar	2011	
6104	1	0.909	Natural Gas	AERCO	2011	
6105	1	1.26	Natural Gas	AERCO	2012	
6105	2	1.5 each	Natural Gas	A O SMITH	2012	
6111	4	0.5 each	Natural Gas	Knight/Lochinvar	2011	
6111	1	1.06	Natural Gas	AERCO	2011	
6140	2	0.4 each	Natural Gas	Knight/Lochinvar	2012	
6141	2	1.5 each	Natural Gas	Ray-Pack	2011	
6141	2	1.999 each	Natural Gas	Ray-Pack	2011	
6142	4	1.999 each	Natural Gas	Ray-Pack	2011	
6143	2	1 each	Natural Gas	Hydrotherm	2012	
6146	2	1 each	Natural Gas	Hydrotherm	2012	
6147	2	1 each	Natural Gas	Hydrotherm	2012	
6501	1	2	Natural Gas	Smith	2011	
7391	2	0.85 each	Natural Gas	Mod Con	2011	
9625	2	0.6 each	Natural Gas	Knight/Lochinvar	2015	
11400	2	0.701 each	Natural Gas	Knight/Lochinvar	2013	
11402	2	0.22 each	Natural Gas	Elite	2014	
11405	2	0.22 each	Natural Gas	Mod-Con elite	2011	
11405	1	0.22	Natural Gas	A.O. Smith	2011	
11410	2	0.22 each	Natural Gas	Mod-Con elite	2011	
11410	1	0.22	Natural Gas	A.O. Smith	2011	
11470	2	0.22 each	Natural Gas	Mod-Con	2011	
11480	2	0.1 each	Natural Gas	Hydrotherm	2011	
12350	2	0.75 each	Natural Gas	Fulton	2011	
12630	1	2	Natural Gas	Fulton	2011	
12630	1	1.25	Natural Gas	A O Smith	2011	
12700	1	0.75	Natural Gas	Burnham	1993	
CDTF	6	1 each	Natural Gas	Fulton/PHW	Unknown	
CDTF	1	4.5	Natural Gas	Cleaver Brooks	Unknown	

HOT WATER HEATERS					
Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
318	2	0.075 each	Natural Gas	Bock	Voluntary Condition
319	1	0.085	Natural Gas	Bock	
450	1	0.199	Natural Gas	Bock	
486	1	0.08	Natural Gas	AO Smith	
487	2	0.3 each	Natural Gas	AO Smith	
487	1	0.075	Natural Gas	AO Smith	
490	1	0.19	Natural Gas	Bock	
491	2	0.12 each	Natural Gas	Unknown	
498	1	0.199	Natural Gas	Bock	
499	1	0.125	Natural Gas	Bock	
560	1	0.1	Natural Gas	Ruud	
580	1	0.12	Natural Gas	Phoenix	
606	1	0.05	Natural Gas	State	
608	1	0.13	Natural Gas	Rheem	
615	1	0.5	Natural Gas	Lochinvar	
616	1	0.75	Natural Gas	AO Smith	
688	1	0.2	Propane	Rheem	
703	1	0.2	Propane	Rheem	
722	1	0.2	Propane	Rheem	
760	1	0.2	Propane	Rheem	
805	1	0.2	Natural Gas	Bock	
811	1	0.399	Propane	Ruud	
822	1	0.36	Natural Gas	Unknown	
838	1	0.199	Natural Gas	Unknown	
901	1	0.15	Natural Gas	AO Smith	
901	2	0.4 each	Natural Gas	AO Smith	
902	2	0.4 each	Natural Gas	AO Smith	
902	1	0.15	Natural Gas	AO Smith	
930	1	0.6	Natural Gas	Turbo Power	
932	1	0.25	Natural Gas	AO Smith	
932	2	0.12 each	Natural Gas	AO Smith	
932	2	1.5 each	Natural Gas	AO Smith	
934	1	0.85	Natural Gas	AO Smith	
934	1	1.7	Natural Gas	AO Smith	
934	1	0.25	Natural Gas	AO Smith	
934	1	0.12	Natural Gas	AO Smith	
934	1	1.5	Natural Gas	AO Smith	
936	2	0.12 each	Natural Gas	AO Smith	
936	2	1.5 each	Natural Gas	AO Smith	
936	1	0.25	Natural Gas	AO Smith	
937	1	0.25	Natural Gas	AO Smith	
937	2	0.12 each	Natural Gas	AO Smith	
937	2	1.5 each	Natural Gas	AO Smith	
939	1	0.25	Natural Gas	AO Smith	
939	2	0.12 each	Natural Gas	AO Smith	

HOT WATER HEATERS					
Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
939	2	1.5 each	Natural Gas	AO Smith	Voluntary Condition
1300	1	2.5	Natural Gas	PVI	
1353	2	0.5 each	Natural Gas	AO Smith	
1354	2	0.5 each	Natural Gas	AO Smith	
1786	2	0.85 each	Natural Gas	Unknown	
1787	2	0.85 each	Natural Gas	Unknown	
1788	2	0.85 each	Natural Gas	Unknown	
2107	1	1.2	Natural Gas	PVI	
2108	1	1.2	Natural Gas	PVI	
2109	1	1.2	Natural Gas	PVI	
2130	1	1.5	Natural Gas	State	
2482	1	0.038	Propane	AO Smith	
3205	1	0.5	Natural Gas	AO Smith	
3223	2	1.5 each	Natural Gas	PVI	
4109	1	0.3	Natural Gas	Rudd	
5059	1	0.199	Propane	Ruud	
5064	1	0.199	Propane	Ruud	
5138	1	0.199	Natural Gas	State	
5295B	1	0.199	Natural Gas	Ruud/Rheem	
5415	1	0.075	Propane	Ruud	
6021	1	0.12	Propane	AO Smith	
6100	1	<10	Natural Gas	Cyclone	
6140	1	0.199	Natural Gas	Rheem/Ruud	
6141	1	2	Natural Gas	Unknown	
6142	1	2	Natural Gas	Unknown	
6143	2	0.5 each	Natural Gas	AO Smith	
6146	2	0.5 each	Natural Gas	AO Smith	
6147	3	0.5 each	Natural Gas	AO Smith	
6501	1	0.1	Natural Gas	Ruud	
9039	8	0.038 each	Natural Gas	AO Smith	
9041	6	0.038 each	Natural Gas	AO Smith	
9045	6	0.038 each	Natural Gas	AO Smith	
9047	8	0.038 each	Natural Gas	AO Smith	
9057	4	0.038 each	Natural Gas	AO Smith	
9059	6	0.038 each	Natural Gas	AO Smith	
9061	4	0.038 each	Natural Gas	AO Smith	
9100	8	0.038 each	Natural Gas	AO Smith	
9101	4	0.038 each	Natural Gas	AO Smith	
9102	4	0.038 each	Natural Gas	AO Smith	
9104	2	0.038 each	Natural Gas	AO Smith	
9107	2	0.038 each	Natural Gas	AO Smith	
9108	2	0.038 each	Natural Gas	AO Smith	
9109	2	0.038 each	Natural Gas	AO Smith	
9110	6	0.038 each	Natural Gas	AO Smith	
9111	6	0.038 each	Natural Gas	AO Smith	
9112	4	0.038 each	Natural Gas	AO Smith	

HOT WATER HEATERS					
Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
9113	4	0.038 each	Natural Gas	AO Smith	Voluntary Condition
9115	4	0.038 each	Natural Gas	AO Smith	
9117	4	0.038 each	Natural Gas	AO Smith	
9619	4	0.038 each	Natural Gas	AO Smith	
9625	1	0.3	Natural Gas	ACE Countryman	
10226	1	0.12	Propane	State	
11400	1	<10	Natural Gas	Rheem	
11416	1	<10	Natural Gas	Rheem	
11416	1	<10	Natural Gas	Rheem	
11417	1	<10	Natural Gas	Rheem	
11417	1	<10	Natural Gas	Rheem	
11480	1	0.3	Natural Gas	AO Smith	
12350	1	1.5	Propane	AO Smith	
12630	1	0.5	Natural Gas	AO Smith	

SPACE HEATERS					
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
150	1	0.25	Natural Gas	Lennox	Voluntary Condition
150	1	0.14	Natural Gas	Lennox	
320	1	<10	Natural Gas	Ruud	
320	2	<10 each	Natural Gas	Fraser Johnson	
340	1	<10	Natural Gas	Unknown	
380	4	<10 each	Propane	Unknown	
486	1	<10	Natural Gas	Reznor	
487	10	0.48 each	Natural Gas	Aaon	
487	1	0.18	Natural Gas	Aaon	
487	2	0.26 each	Natural Gas	Aaon	
487	5	0.078 each	Natural Gas	Reznor	
487	6	0.125 each	Natural Gas	Aaon	
491	1	0.39	Natural Gas	Aaon	
491	2	0.18 each	Natural Gas	Aaon	
496	1	0.125	Natural Gas	Janitrol	
560	5	0.08 each	Natural Gas	York	
561	1	0.15	Propane	Ruud	
562	1	0.15	Propane	Ruud	
563	1	0.15	Propane	Ruud	
564	1	0.15	Propane	Ruud	
565	2	0.15 each	Propane	Ruud	
566	1	0.12	Propane	Unknown	
567	1	0.125	Propane	Ruud	
568	1	0.125	Propane	Ruud	
569	1	0.12	Propane	Rheem	
664	1	0.15	Propane	Rheem	
665	1	0.15	Propane	Ruud	

SPACE HEATERS					
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
669	1	0.15	Propane	Ruud	Voluntary Condition
680	2	0.175 each	Propane	Sterling	
681	2	0.175 each	Propane	Modine	
681	1	0.1	Propane	Ruud	
684	2	0.5 each	Propane	Reznor	
686	1	0.12	Propane	Philco	
687	1	0.12	Propane	Philco	
688	2	0.15 each	Propane	Rheem	
689	1	0.12	Propane	Philco	
690	1	0.12	Propane	Philco	
691	1	0.15	Propane	Ruud	
692	1	0.15	Propane	Ruud	
693	1	0.15	Propane	Ruud	
701	1	0.12	Propane	Philco	
702	1	0.12	Propane	Philco	
703	2	0.15 each	Propane	Rheem	
704	1	0.12	Propane	Philco	
705	1	0.12	Propane	Philco	
706	1	0.15	Propane	Ruud	
707	1	0.15	Propane	Ruud	
708	2	0.5 each	Natural Gas	Trane	
709	1	0.15	Propane	Ruud	
710	1	0.15	Propane	Ruud	
720	1	0.15	Propane	Ruud	
721	1	0.15	Propane	Ruud	
722	2	0.15 each	Propane	Rheem	
723	1	0.12	Propane	Philco	
724	1	0.12	Propane	Philco	
725	1	0.15	Propane	Ruud	
726	1	0.15	Propane	Ruud	
727	1	0.15	Propane	Ruud	
728	1	0.15	Propane	Ruud	
741	1	0.075	Natural Gas	Addison	
758	1	0.12	Propane	Philco	
759	1	0.12	Propane	Philco	
760	2	0.15 each	Propane	Rheem	
761	1	0.12	Propane	Goodman	
762	1	0.12	Propane	Philco	
764	1	0.15	Propane	Ruud	
766	1	0.15	Propane	Ruud	
772	2	0.175 each	Propane	Sterling	
773	2	0.175 each	Propane	Sterling	
780	2	0.25 each	Propane	Beacon	
780	1	0.05	Propane	Ruud	
781	2	0.175 each	Propane	Sterling	
791	1	0.12	Propane	Philco	
805	1	0.875	Natural Gas	Fulton	

SPACE HEATERS					
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
806	1	0.15	Propane	Ruud	Voluntary Condition
807	1	0.15	Propane	Ruud	
808	1	0.15	Propane	Ruud	
809	1	0.15	Propane	Ruud	
810	1	0.15	Propane	Ruud	
811	1	0.3	Propane	Reznor	
812	1	0.15	Propane	Ruud	
813	1	0.15	Propane	Ruud	
814	1	0.15	Propane	Ruud	
820	1	<10	Natural Gas	Unknown	
853	2	0.15 each	Propane	Ruud	
854	1	0.15	Propane	Ruud	
857	1	0.15	Propane	Ruud	
859	1	0.15	Propane	Ruud	
872	2	0.175 each	Propane	Modine	
873	2	0.175 each	Propane	Modine	
880	2	0.175 each	Propane	Sterling	
881	2	0.175 each	Propane	Sterling	
894	4	0.92 each	Propane	Goodman	
911	1	<10	Propane	McQuay	
911	2	0.1 each	Propane	American Std.	
912	2	0.1 each	Propane	American Std.	
950	2	<10 each	Natural Gas	Forced Air	
962	1	0.1	Natural Gas	Coleman	
962	5	0.08 each	Natural Gas	Coleman	
963	5	0.08 each	Natural Gas	Coleman	
966	3	0.08 each	Natural Gas	Coleman	
968	2	0.04 each	Natural Gas	Coleman	
970	2	0.08 each	Natural Gas	Coleman	
970	1	0.06	Natural Gas	Coleman	
972	1	0.04	Natural Gas	Coleman	
973	1	0.04	Natural Gas	Coleman	
974	1	0.04	Natural Gas	Coleman	
976	1	0.04	Natural Gas	Coleman	
977	1	0.04	Natural Gas	Coleman	
990	1	0.36	Propane	Co-Ray-Vac	
991	1	0.36	Propane	Co-Ray-Vac	
998	1	0.36	Propane	Co-Ray-Vac	
999	1	0.36	Propane	Co-Ray-Vac	
1021	4	0.175 each	Natural Gas	Modine	
1026	1	0.123	Propane	Weathermaker	
1026	1	0.16	Propane	Weathermaker	
1026	1	0.0912	Propane	Weathermaker	
1026	1	0.0906	Propane	Weathermaker	
1026	1	0.075	Propane	Weathermaker	
1026	1	0.3	Propane	Reznor	
1067	4	0.2 each	Natural Gas	Reznor	

SPACE HEATERS						
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)	
1230	1	0.1	Propane	Ruud	Voluntary Condition	
1230	2	0.5 each	Propane	McQuay		
1314	1	0.072	Propane	Goodman		
1315	1	0.15	Propane	Ruud		
1316	2	0.15 each	Propane	Ruud (Rheem)		
1317	2	0.15 each	Propane	Ruud		
1318	1	<10	Propane	Reznor		
1320	1	0.1	Propane	Rheem		
1321	2	0.15 each	Propane	Rheem		
1322	2	0.15 each	Propane	Ruud		
1323	1	0.112	Propane	Borg Warner		
1324	1	0.112	Fuel Oil #2	Borg Warner		Voluntary Condition, 10 CSR 10-6.220
1353	1	<10	Propane	Unknown		Voluntary Condition
1354	1	<10	Propane	Unknown		
1383	6	0.14 each	Propane	Bryant		
1390	1	0.09	Propane	Goodman		
1391	1	0.14	Propane	Carrier		
1391	1	0.12	Propane	Goodman		
1445	4	<10 each	Natural Gas	York		
1445	2	<10 each	Natural Gas	Reznor		
1588	2	0.15 each	Propane	Weather King		
1605	1	0.04	Natural Gas	Unknown		
1605	1	0.125	Natural Gas	Trane		
1605	1	0.2	Natural Gas	Trane		
1606	1	0.04	Natural Gas	Trane		
1606	1	<10	Natural Gas	Re-Verber-Ray		
1612	2	0.105 each	Propane	Reznor		
1612	1	0.045	Propane	Modine		
1616	1	0.04	Natural Gas	Unknown		
1650	1	0.15	Propane	Ruud		
1784	5	<10 each	Natural Gas	Unknown		
2101	2	0.15 each	Propane	Rheem		
2105	5	0.00105 each	Natural Gas	Modine		
2137	2	<10 each	Propane	McQuay		
2200	1	0.06	Propane	American Std.		
2200	1	0.078	Propane	American Std.		
2200	1	0.1	Propane	American Std.		
2200A	2	0.125 each	Propane	Ruud		
2200B	3	<10 each	Propane	Carrier		
2201	2	0.125 each	Propane	Goodman		
2202	2	0.168 each	Propane	Lenox		
2203	2	0.105 each	Propane	Ruud		
2204	1	0.25	Propane	Aaon		
2207	2	0.15 each	Propane	Goodman		
2208	1	0.35	Propane	Reznor		
2208	1	0.2	Propane	Singer		

SPACE HEATERS					
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
2110	2	0.1 each	Natural Gas	Trane	Voluntary Condition
2212	4	0.15 each	Propane	Ruud	
2212	1	0.2272	Propane	Thermoflo	
2217	2	0.15 each	Propane	Rheem	
2219	1	0.08	Propane	Heat Wave	
2219B	1	0.075	Propane	Goodman	
2220	1	0.1	Propane	Goodman	
2222	2	0.15 each	Propane	Ruud	
2222	1	0.08	Propane	Goodman	
2222	1	0.06	Propane	Goodman	
2222	3	0.075 each	Propane	Modine	
2224	2	0.1 each	Propane	Ruud	
2226	2	0.09 each	Propane	Ruud	
2227	1	<10	Propane	Rheem	
2229	1	0.15	Propane	Janitrol	
2230	3	0.06 each	Propane	Infra-Red	
2241	2	0.08 each	Propane	American Std.	
2241	1	0.1	Propane	Addison	
2272	1	0.15	Propane	Ruud	
2290	2	0.115 each	Propane	Goodman	
2303	2	0.1 each	Propane	Modine	
2305	2	<0.35 each	Fuel Oil #2	Unknown	Voluntary Condition, 10 CSR 10-6.220
2306	2	0.12 each	Fuel Oil #2	Weather King	
2307	2	0.12 each	Fuel Oil #2	Weather King	
2310	2	0.15 each	Propane	Goodman	Voluntary Condition
2310	1	0.045	Propane	Goodman	
2313	1	0.15	Propane	Ruud	
2314	2	0.16 each	Propane	Dravo Hastings	
2319	1	0.25	Fuel Oil #2	Power Matic	Voluntary Condition, 10 CSR 10-6.220
2319	2	0.04 each	Propane	Modine	Voluntary Condition
2323	1	0.112	Fuel Oil #2	Air Ease	Voluntary Condition, 10 CSR 10-6.220
2324	2	0.15 each	Propane	Ruud	Voluntary Condition
2325	1	0.125	Propane	Goodman	
2326	1	0.1	Propane	Ruud	
2332	1	0.1	Propane	Goodman	
2333	2	0.112 each	Propane	Carrier	
2334	1	<10	Propane	Unknown	
2336	1	0.1	Propane	Rheem	
2336	2	0.35 each	Propane	Modine	
2337	1	0.1	Propane	Rheem	
2337	2	0.35 each	Propane	Modine	
2338	2	0.25 each	Propane	Reznor	
2338	1	0.12	Propane	Bryant	
2339	1	0.15	Propane	Ruud	
2341	2	0.15 each	Propane	Goodman	

SPACE HEATERS					
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
2342	1	0.15	Propane	Ruud	Voluntary Condition
2343	1	0.15	Propane	Goodman	
2344	1	0.15	Propane	Goodman	
2345	1	0.15	Propane	Goodman	
2347	1	0.09	Propane	Goodman	
2347	4	0.08 each	Propane	Ambirad	
2390	2	0.065 each	Propane	Reznor	
2391	2	0.125 each	Propane	Goodman	
2394	2	0.1 each	Propane	Reznor	
2395	2	0.1 each	Propane	Bryant	
2396	1	<10	Natural Gas	Unknown	
2397	1	<10	Propane	Unknown	
2435	1	0.075	Propane	Ruud	
2482	1	0.15	Propane	Reznor	
2549	1	0.095	Used Oil	Shenandoah	Voluntary Condition, 10 CSR 10-6.220
2550	1	0.175	Propane	Modine	Voluntary Condition
2550	1	0.25	Propane	Modine	
2555	1	0.07	Propane	Goodman	
2555	1	0.15	Propane	Ruud	
2558	1	0.5	Fuel Oil #2	Power Matic	Voluntary Condition, 10 CSR 10-6.220, 10 CSR 10-6.260, 10 CSR 10-6.261
2560	6	<10 each	Natural Gas	Reznor	Voluntary Condition
2562	1	0.06	Propane	Luxaire	
2563	4	0.15 each	Propane	Ruud	
2836	1	0.096	Propane	Air Temp	
2840	1	0.15	Propane	Bryant	
2841	1	0.096	Propane	Air Temp	
2842	1	0.1	Propane	BDP	
3205	8	<10 each	Natural Gas	Unknown	
3209	2	0.1 each	Propane	Trane	
3210	1	<10	Natural Gas	McQuay	
3220	3	0.1 each	Natural Gas	Trane	
3220	1	0.175	Natural Gas	Trane	
3220	1	0.05	Natural Gas	Trane	
4052	1	0.075	Propane	Ruud	
4190	1	0.15	Propane	Rheem	
4191	1	0.15	Propane	Rheem	
4192	1	0.15	Propane	Airedale	
4193	1	0.1	Propane	Goodman	
4194	1	0.1	Propane	Heil	
4199	1	0.15	Propane	Goodman	
4976	4	<10 each	Natural Gas	Unknown	
5002	2	0.125 each	Propane	Heil	
5004	2	0.15 each	Propane	Ruud/Rheem	
5041	2	0.07 each	Propane	Goodman	

SPACE HEATERS					
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
5042	2	0.15 each	Propane	Ruud	Voluntary Condition
5046	2	<10 each	Propane	Rheem	
5047	2	0.15 each	Propane	Ruud	
5048	2	0.15 each	Propane	Ruud	
5049	2	0.15 each	Natural Gas	Weather King	
5049A	1	0.18	Natural Gas	Aaon	
5049B	1	0.18	Natural Gas	Aaon	
5049C	1	<10	Natural Gas	Reznor	
5051	1	<10	Propane	Parker	
5054	2	<10 each	Propane	American Std.	
5056	1	0.15	Propane	Ruud	
5059	2	0.15 each	Propane	Goodman	
5064	1	0.12	Propane	Ruud	
5075	1	0.125	Propane	Ruud	
5076	1	0.125	Propane	Comfort-Aire	
5077	1	0.125	Propane	Ruud	
5078	1	0.125	Propane	Ruud	
5079	1	0.125	Propane	Ruud	
5080	2	0.075	Propane	Addison	
5080B	1	<10	Propane	Goodman	
5081	2	0.075 each	Propane	Addison	
5082	1	0.125	Propane	Rheem	
5083	1	0.092	Propane	Goodman	
5084	1	0.125	Propane	Ruud	
5085	1	0.125	Propane	Rheem	
5130	1	0.15	Propane	Ruud	
5133	1	<10	Propane	McQuay	
5144	2	0.1 each	Propane	Rheem	
5144	1	0.1	Propane	Sterling	
5144	1	0.024	Propane	Sterling	
5145	1	0.075	Propane	Rheem	
5145	2	0.024	Propane	Sterling	
5150	4	0.23 each	Propane	Dornback/ Goodman	
5153	1	0.1	Propane	Rheem	
5153	1	0.05	Propane	Rheem	
5153	1	0.03	Propane	Sterling	
5154	2	<10 each	Natural Gas	Unknown	
5156	4	0.03 each	Propane	Modine	
5247	1	0.075	Propane	Venmar	
5253	2	0.096	Propane	Nordyne	
5254	1	0.105	Propane	Lenox	
5259	1	0.088	Propane	Carrier	
5259	2	0.04 each	Propane	Reznor	
5260	1	0.09	Propane	Goodman	
5260	2	0.07 each	Propane	Goodman	
5264	1	0.06	Natural Gas	Philco	

SPACE HEATERS					
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
5268	3	0.075 each	Propane	Co-Ray-Vac	Voluntary Condition
5269	1	<10	Propane	Modine	
5270	2	0.15 each	Propane	Ruud	
5278	5	0.115 each	Propane	Goodman	
5279	1	0.39	Propane	Aaon	
5280	1	0.105	Fuel Oil #2	Heil	Voluntary Condition, 10 CSR 10-6.220
5285	1	0.1	Propane	Rheem	Voluntary Condition
5289	2	0.125 each	Propane	Nordyne	
5289F	1	0.15	Propane	Reznor	
5293	4	0.089 each	Propane	Carrier	
5293	1	0.024	Propane	Modine	
5294	2	0.125 each	Propane	American Std.	
5295	2	0.1 each	Propane	Trane	
5295	2	0.125 each	Propane	Trane	
5307	1	0.18	Propane	Aaon	
5315	1	0.18	Propane	Aaon	
5342	2	<10 each	Propane	York	
5377	1	0.18	Propane	Aaon	
5414	1	0.05	Propane	Reznor	
5414	1	0.045	Propane	Trane	
5418	2	<10 each	Propane	Carrier	
5429	1	0.1	Propane	Reznor	
5431	1	0.15	Propane	Ruud	
5441A	2	<10 each	Propane	Lenox	
5451	1	0.06	Propane	Venmar	
5451	1	0.075	Propane	Ruud/Rheem	
5464	2	0.11 each	Propane	Carrier	
5464	3	0.03 each	Propane	Ray Tec	
5464	1	0.125	Propane	Modine	
5465	8	0.145 each	Propane	Modine	
5474	1	<10	Propane	American Std.	
5475	1	<10	Propane	Modine	
5476	1	<10	Propane	American Std.	
5513	2	<10 each	Propane	York	
5540	2	0.066 each	Propane	Carrier	
5540	1	0.0675	Propane	Modine	
5540	1	0.027	Propane	Modine	
5583	1	0.046	Propane	Carrier	
5585	2	0.11 each	Propane	Carrier	
5585	1	0.066	Propane	Carrier	
5585	2	0.03 each	Propane	Modine	
5585	1	0.2	Propane	Modine	
5587	2	0.005 each	Propane	Venmar	
5596	1	0.06	Propane	Modine	
5712	2	0.11 each	Propane	Carrier	
5712	1	0.066	Propane	Carrier	

SPACE HEATERS					
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
5712	1	0.05	Propane	Reznor	Voluntary Condition
5712	1	0.08	Propane	Reznor	
5747	2	<10 each	Propane	York	
5748	1	0.066	Propane	Carrier	
6005	1	0.08	Propane	Addison	
6022	1	0.125	Propane	Ruud	
6050	2	0.1 each	Propane	Ruud/Rheem	
6105	1	<10	Natural Gas	Trane	
6130	1	0.15	Propane	Ruud	
6131	1	0.15	Propane	Ruud	
6135	1	0.15	Propane	Ruud	
6505	1	0.2	Propane	Sterling	
9039	8	0.1 each	Natural Gas	Unknown	
9041	6	0.1 each	Natural Gas	Unknown	
9045	6	0.1 each	Natural Gas	Unknown	
9047	8	0.1 each	Natural Gas	Unknown	
9057	4	0.1 each	Natural Gas	Unknown	
9059	6	0.1 each	Natural Gas	Unknown	
9061	4	0.1 each	Natural Gas	Unknown	
9100	8	0.1 each	Natural Gas	Unknown	
9101	4	0.1 each	Natural Gas	Unknown	
9102	4	0.1 each	Natural Gas	Unknown	
9104	2	0.1 each	Natural Gas	Unknown	
9107	2	0.1 each	Natural Gas	Unknown	
9108	2	0.1 each	Natural Gas	Unknown	
9109	2	0.1 each	Natural Gas	Unknown	
9110	6	0.1 each	Natural Gas	Unknown	
9111	6	0.1 each	Natural Gas	Unknown	
9112	4	0.1 each	Natural Gas	Unknown	
9113	4	0.1 each	Natural Gas	Unknown	
9115	4	0.1 each	Natural Gas	Unknown	
9117	4	0.1 each	Natural Gas	Unknown	
9625	1	<10	Natural Gas	Trane	
10166	1	0.15	Propane	Reznor	
10200	1	<10	Propane	Unknown	
10200	1	0.08	Propane	Ruud	
10221	2	0.137	Propane	Trane	
10221	1	0.04	Propane	American Std.	
10226	1	0.12	Propane	Ruud	
10300	1	<10	Propane	Ruud	
10301	2	0.2 each	Propane	Goodman	
10302	2	0.137 each	Propane	Lennox	
10303	3	0.1 each	Propane	American Std.	
10304	4	0.1 each	Propane	Reznor	
10304	1	0.075	Propane	Reznor	
10320	1	0.08	Propane	Heil	
10321	1	0.075	Propane	Rheem	

SPACE HEATERS					
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
10330	1	0.15	Propane	Ruud	Voluntary Condition
10332	2	0.15 each	Propane	Ruud	
10333	2	<10 each	Propane	American Std.	
10380	2	0.15 each	Propane	Ruud	
10382	5	<10 each	Propane	Reznor	
11470	2	<10 each	Natural Gas	Unknown	
11471	2	<10 each	Natural Gas	Unknown	
11473	3	<10 each	Natural Gas	Unknown	
11525	2	0.175 each	Natural Gas	Reznor	
12115	2	0.09 each	Propane	Aaon	
12304	4	0.1 each	Propane	Reznor	
12310	1	0.15	Propane	Ruud	
12312	2	<10 each	Propane	American Std.	
12314	1	0.15	Propane	Philco	
12350	4	0.15 each	Natural Gas	Cambridge/Lenox	
12382	4	0.1 each	Propane	Reznor	
12400	1	0.25	Propane	Rheem	
12401	2	0.1 each	Propane	American Std.	
12403	2	0.1 each	Propane	Modine	
12405	1	<10	Propane	Aaon	
12410	1	0.125	Propane	Ruud	
12414	1	0.25	Propane	McQuay	
12416	2	0.125 each	Propane	American Std.	
12422	2	0.1 each	Propane	American Std.	
12423	2	0.1 each	Propane	American Std.	
12450	2	0.125 each	Propane	American Std.	
12452	1	0.15	Propane	Reznor	
12454	2	<10 each	Natural Gas	Unknown	
12509	2	0.125 each	Propane	American Std.	
12510	2	<10 each	Propane	American Std.	
12512	2	0.125 each	Propane	American Std.	
12517	2	<10 each	Propane	American Std.	
12518	1	0.27	Propane	Aaon	
12600	1	0.15	Propane	Reznor	
12609	1	0.1	Propane	American Std.	
12610	1	0.15	Propane	Ruud	
12615	1	0.15	Propane	Reznor	
12630	2	<10 each	Propane	Frazier Johnston	
12630	1	<10	Propane	Goodman	
12710	1	0.125	Propane	Ruud	
12800	4	0.1 each	Propane	York	
12850	2	0.045 each	Propane	Venmar	
13102	1	<10	Propane	McQuay	
13105	1	<10	Propane	Unknown	
13110	1	0.092	Propane	Goodman	
13130	4	0.1 each	Propane	Nutone	
13131	1	0.15	Propane	Reznor	

SPACE HEATERS					
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer	Applicable Requirement(s)
13132	4	0.15 each	Propane	Reznor	Voluntary Condition
13133	1	0.15	Propane	Reznor	
13135	1	<10	Propane	McQuay	
13204	2	<10 each	Propane	Trane	
13428	1	<10	Propane	Venmar	
13447	3	<10 each	Propane	Unknown	
13601	1	0.15	Propane	Trane	
13602	1	0.15	Propane	Ruud	
13632	2	0.14 each	Propane	York	
13661	2	0.06 each	Propane	York	
OA973	1	0.125	Natural Gas	Goodman	

Tanks				
Emission Source	Description	Contents	Capacity (gallons)	Applicable Requirement(s)
12630-A1	Prime Power School	Diesel	5,000	Construction Permit 092008-001
12630-A2	Prime Power School	Diesel	5,000	
5138-A1	Reserve Center ECS	Diesel	2,000	Construction Permit 052001-011
5138-A2	Reserve Center ECS	Diesel	10,000	
311	Underground Storage Tank	Diesel	6,000	
2210-A3	TFW Compound	Diesel	10,000	
2210-A4	TFW Compound	Diesel	1,000	
5465-A1	TA 401 Fog Oil Training	Diesel	500	
5465-A2	TA 401 Fog Oil Training	Diesel	500	
987-A1	900 Motor Pool	Diesel	10,000	
987-A2	900 Motor Pool	Diesel	10,000	
5021-A1	Airport Tank	JP8/JAA/F24	10,000	
5021-A2	Airport Tank	JP8/JAA/F24	10,000	
5021-A3	Airport Tank	JP8/JAA/F24	10,000	
5158-A1	TA 207 Fire Training Area Tank	Diesel	1,000	
5267-A3	Transportation Motor Pool Tank	Diesel	12,000	
5267-A4	Transportation Motor Pool Tank	Diesel	12,000	
5267-A1	Transportation Motor Pool Tank	E85	12,000	Construction Permit 052001-011, MACT CCCCCC
5267-A2	Transportation Motor Pool Tank	Gasoline	12,000	
10225-A1/A2	Golf Course Cart Barn ONE Tank 1/2 Unleaded 1/2 Diesel	MOGAS/Diesel	1,000	MACT CCCCCC
150-1	Underground Storage Tank	Gasoline	10,000	
150-2	Underground Storage Tank	Gasoline	10,000	
150-3	Underground Storage Tank	Gasoline	10,000	
150-4	Underground Storage Tank	Gasoline	10,000	
1605-1	Underground Storage Tank	Gasoline	20,000	
1605-2	Underground Storage Tank	Gasoline	15,000	
2210-A1	TFW Compound	MOGAS	10,000	
2210-A2	TFW Compound	MOGAS	10,000	
5267-A5	Transportation Motor Pool	MOGAS	10,000	

Emergency Engines		
Emission Source	Description	Applicable Requirement(s)
GEN087	Bldg 1000 MP Command Key CH 751 Cummins Generator, 56 HP, Diesel, 2004	MACT ZZZZ, 10 CSR 10-6.260, 10 CSR 10-6.261
GEN1222	Bldg 979 MP School Cummins Generator, 87 HP, Diesel, 1998	
GEN139	Fire Station 1 Cummins Generator, 134 HP, Diesel, 2000	
GEN141	Bldg 10252 Water Intake Caterpillar Generator, 262 HP, Diesel, 1971	
GEN173	Bldg 100 Front Gate Caterpillar Generator, 449 HP, Diesel, 2004	
GEN222	Bldg 1000 MP Station Kohler Generator, 20 HP, Diesel, 1984	
GEN227	Bldg 941 Basic Training Key Maintenance 285 Kohler Generator, 450 HP, Diesel, 2003	
GEN233	East Gate Key CH 751 Kohler Generator, 120 HP, Diesel, 2011	
GEN234	West Gate Kohler Generator, 240 HP, Diesel, 2011	
GEN235	South Gate Key CH 751 Kohler Generator, 107 HP, Diesel, 2011	
GEN255	Bldg 311 3 Hospital Detroit Generator, 500 HP, Diesel, 1983	
GEN290	Range Control (Radio Tower) Key 03165 Bldg X27 15288 Frontage Rd Cummins Generator, 40 HP, Diesel, 2004	MACT ZZZZ, 10 CSR 10-6.260, 10 CSR 10-6.261
GEN317	Bldg 404 Phone Center Kohler Generator, 370 HP, Diesel, 1986	
GEN402	Bldg 5245 CMTF General Generator, 60 HP, Diesel, 1998	
GEN412	Bldg 5410 Lift Station Key 404 Gate 13260 CAT Generator, 45 HP, Diesel, 2006	NSPS IIII, 10 CSR 10-6.260, 10 CSR 10-6.261
GEN417	Bldg 890 Chem School Alabama Ave Onan Generator, 60 HP, Diesel, 1998	MACT ZZZZ, 10 CSR 10-6.260, 10 CSR 10-6.261
GEN434	Bldg 311 Hospital Phone Kohler Generator, 100 HP, Diesel, 1989	MACT ZZZZ, 10 CSR 10-6.260, 10 CSR 10-6.261
GEN531	Kansas Ave Past Bldg 6104 Kohler Generator, 200 HP, Diesel, 2009	NSPS IIII, 10 CSR 10-6.260, 10 CSR 10-6.261
GEN601	Bldg 311 2 Hospital Detroit Generator, 450 HP, Diesel, 1983	MACT ZZZZ, 10 CSR 10-6.260, 10 CSR 10-6.261
GEN602	Bldg 311 1 Hospital Detroit Generator, 450 HP, Diesel, 1983	
GEN708	Nutter Field House CAT Generator, 480 HP, Diesel, 2010	NSPS IIII, 10 CSR 10-6.260, 10 CSR 10-6.261
GEN821	Bldg 1601E Water Treatment MTU Generator, 1193 HP, Diesel 2014	
GEN929	Bldg Repeater Hill Cummins Generator, 40 HP, Diesel, 2004	MACT ZZZZ, 10 CSR 10-6.260, 10 CSR 10-6.261

Emergency Engines		
Emission Source	Description	Applicable Requirement(s)
GEN962	Airport Main Gate Code 21345 Kohler Generator, 567 HP, Diesel, 2003	Construction Permit 062003-015A, MACT ZZZZ, 10 CSR 10-6.260, 10 CSR 10-6.261
GENA76	Bldg 2369 Boiler Plant Detroit Generator, 486 HP, Diesel, 1978	MACT ZZZZ, 10 CSR 10-6.260, 10 CSR 10-6.261
GENJ68	Bldg 1021 Boiler Plant 13590 Cassion Dr. Detroit Generator, 486 HP, Diesel, 1978	
GEN3LS	Mancen Bldg 3200 Phone Generator, 107 HP, Diesel, 2012	NSPS IIII, 10 CSR 10-6.260, 10 CSR 10-6.261
GEN580	Bldg 181 Sewer Plant Caterpillar Generator, 645 HP, Diesel, 1976	MACT ZZZZ, 10 CSR 10-6.260, 10 CSR 10-6.261
GEN775	Bldg 3203 Mancen Detroit Generator, 972 HP, Diesel, 1998	
GEN908	Davidson Fitness Center CAT Generator, 1620 HP, Diesel, 2011	NSPS IIII, 10 CSR 10-6.260, 10 CSR 10-6.261
GEN910	Sewer Plant Outside MTU Generator, 1717 HP, Diesel, 2010	
GENK65	Bldg 3200 Mancen Kohler Generator, 1073 HP, Diesel, 2013	
GEN127	Bldg 11400 Key CH 751 Cummins Generator, 803 HP, 4-Stroke Rich Burn, Natural Gas, 5/30/2012	NSPS JJJJ
GEN215	Front Entrance TA 236/FLW P Gate 13108 Generac Generator, 50 HP, 4-Stroke Rich Burn, Propane, 2011	
GEN389	Bldg 5441A Lift Station General Generator, 50 HP, 4-Stroke Rich Burn, Propane, 2010	
GEN517	Bldg 485 Commissary Ford Generator, 160 HP, 4-Stroke Rich Burn, Natural Gas, 1989	MACT ZZZZ
GEN551	Communication Shelter 2114 Cummins Generator, 97 HP, 4-Stroke Rich Burn, Propane, 2009	NSPS JJJJ
GEN552	Communication Shelter 12629 Cummins Generator, 97 HP, 4-Stroke Rich Burn, Natural Gas, 2009	
GEN653	Past CEHC Left Side Before Smoke Range Generac Generator, 60 HP, 4-Stroke Rich Burn, Propane, 2010	
GEN603	Communication Shelter 1018A by MP Station Bldg 1000 Kohler Generator, 201 HP, 4-Stroke Rich Burn, Natural Gas, 2010	NSPS JJJJ
GEN726	New Communication Center Caterpillar Generator, 2106 HP, 4-Stroke Lean Burn, Natural Gas, 2012	NSPS JJJJ
GEN727	New Communication Center Caterpillar Generator, 2106 HP, 4-Stroke Lean Burn, Natural Gas, 2012	
GEN937	Rear Entrance TA 236 Bldg 3120 Kohler Generator, 41 HP, 4-Stroke Rich Burn, Natural Gas, 2011	
CDTF1	Katolight/D600FRX4 Generator, 947 HP, Diesel, 1998	MACT ZZZZ, 10 CSR 10-6.260, 10 CSR 10-6.261
CDTF2	Kohler 300ROZD Generator, 450 HP, Diesel, 1997	
GEN335	11415 Big Piney Road Lift Station MTU Generator, 134 HP, 4-Stroke Lean Burn, Natural Gas, 2014	NSPS JJJJ

Prime Power School (Non-Emergency Engines)		
Emission Source	Description	Applicable Requirement(s)
046	General Motors EMD Generator, 2125 HP each, Diesel, 1992	Construction Permit 092008-001, MACT ZZZZ, 10 CSR 10-6.260
	(3) General Motors EMD Generator, 2125 HP each, Diesel, 1966	
047	(2) Fermont Generators, 1235 HP each, Diesel, 1984	Construction Permit 092008-001, MACT ZZZZ, 10 CSR 10-6.260
	(4) Fermont Generators, 1235 HP each, Diesel, 1986	
048	Caterpillar DPGDS, 669 HP each, Diesel, 2002	Construction Permit 092008-001, NSPS III, 10 CSR 10-6.260
	(5) Caterpillar DPGDS, 669 HP each, Diesel, 2008	
	Caterpillar DPGDS, 669 HP each, Diesel, 2009	

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance. These emission sources are subject to the plantwide emission limitations.

Tanks			
Emission Source	Description	Contents	Capacity (gallons)
950	Underground Storage Tank	Diesel/Oil	4,000
4050	Underground Storage Tank	Diesel/Oil	1,000
4060	Underground Storage Tank	Diesel/Oil	2,000
5015	Underground Storage Tank	JP8/JAA/F24	12,000
1000-A1	Military Police Generator Day Tank	Diesel	145
1000-A2	Military Police Generator Day Tank	Diesel	100
100-A1	Main Gate Generator	Diesel	500
1021-A1	Heat Plant Generator day tank	Diesel	100
1021-A3	Heat Plant supply tank	Heating Oil (Diesel)	40,000
10225-A3	Piney Hills Golf Course Grease Tank	Used Cooking Grease	300
10250-A1	Water Intake Backup Generator	Diesel	1,000
10322-A1	TA 256 Used Oil	Used Oil	500
10322-A2	TA 256 15W40	Fresh Oil	250
10322-A3	TA 256 80/90	Fresh Oil	250
10322-A4	TA 256 10W	Fresh Oil	250
10323-A1	TA 256	15W-40	250
10323-A2	TA 256	80/90 Gear Oil	250
10323-A3	TA 256	10W	250
11416-A1	TEMF Complex	Used Oil	500
11416-A2	TEMF Complex	Fuel Oil	500
11417-A1	TEMF Complex	Used Oil	500
11417-A2	TEMF Complex	Fuel Oil	500
11480-A1	MEB Motor Pool	Used Oil	500
12630-A3	Prime Power School	Used Oil	500
12630-A4	Prime Power School	Diesel	150
12700-A1	Kimbro Hall TA 244	Used Oil	1,000
12700-A2	Kimbro Hall TA 244	Fresh Oil	450
12700-A3	Kimbro Hall TA 244	Fresh Oil	450
12700-A4	Kimbro Hall TA 244	Fresh Oil	450

Tanks			
Emission Source	Description	Contents	Capacity (gallons)
1300-A1	Davidson Fitness Center	Diesel	660
13260-A1	Lift Station Generator Belly Tank (Lift Station #13260)	Diesel	100
150-A1	AAFES Service Station	Fresh Oil	500
150-A2	AAFES Service Station	Used Oil	500
1588-A1	Building 1588	Diesel	1,200
1601-1	Underground Storage Tank	Aluminum Sulfate	8,000
1601-2	Underground Storage Tank	Sodium Hydroxide	6,000
1601-A3	Water Treatment Plant Generator Belly Tank	Diesel	200
1601-A4	Water Treatment Plant Generator Belly Tank	Diesel	2,400
1609-A1	Building 1609 Bowling Alley Grease	Used Cooking Grease	300
1711-A1	Pizza Hut Grease	Used Cooking Grease	300
175-A1	Building 175 Generator	Diesel	3,000
181-A1	WWTP Generator	Diesel	500
181-A2	WWTP Generator Day Tank	Diesel	200
1021-A2	Heat Plant Generator Tank	Diesel	500
1383-A1	Auto Craft Shop Tank	Used/Waste Oil	500
2212-A1	TFW Compound (Maintenance)	Used Oil	550
2230-A1	Locomotive Shop	Used Oil	300
2230-A2	Locomotive Shop	Diesel	5,000
2369-A1	Central Boiler Plant	Heating Oil	40,000
2369-A2	Heat Plant Backup Generator Supply	Diesel	550
2369-A3	Heat Plant Backup Generator Day Tank	Diesel	300
2549-A1	Recycle Center	Used Oil	2,000
2549-A2	Recycle Center	Used Oil	300
2558-A1	MWR	Heating Oil (Diesel)	500
2581-A2	TFW Central Collection	Used Oil	5,000
2581-A3	TFW Central Collection	Used Oil	5,000
310-A1	Hospital Cafeteria Grease Tank	Used Cooking Grease	300
311-A1	Hospital Heat Plant Gen Day Tank	Diesel	75
311-A2	Hospital Heat Plant Gen Day Tank	Diesel	75
311-A3	Hospital Heat Plant Gen Day Tank	Diesel	75
3200-A1	MSCoE Backup Generator	Diesel	275
3200-A2	MSCoE Cafeteria Grease	Used Grease	300
3200-A3	MSCoE Backup Generator	Diesel	3,000
3203-A1	Building 3203 Generator	Diesel	1,500
3223-A1	Mess Hall Grease Tank	Used Cooking Grease	300
404-A1	Phone Service Building	Diesel	500
4053-A1	DOL POL Farm	#2 Diesel	56,448
4054-A1	DOL POL Farm	#1 Diesel	71,526
4056-A1	DOL POL Farm	JP-8	37,590
4109-A1	Pershing Community Center Grease	Used Cooking Grease	300
487-A1	AAFES PX Food Court Grease	Used Cooking Grease	300
490-A1	AAFES Food Court Grease	Used Cooking Grease	300
491-A1	Burger King/Church's Grease	Used Cooking Grease	300

Tanks			
Emission Source	Description	Contents	Capacity (gallons)
491-A2	Burger King/Church's Grease	Used Cooking Grease	300
4995-A1	East Gate Emergency Generator	Diesel	1,400
5003-A1	Airport Backup Generator	Diesel	2,000
5003-A2	Airport Backup Generator Day Tank	Diesel	175
5007-A1	Airport	Diesel	500
5007-A2	Airport	F24	500
5053-A1	577th MEO Fresh Oil	Fresh Oil	500
5053-A2	577th MEO Fresh Oil	Fresh Oil	500
5053-A3	577th MEO Fresh Oil	Fresh Oil	500
5053-A4	577th MEO Boiler Fuel	Boiler Fuel	500
5053-A5	577th MEO Used Oil	Used Oil	1000
5069-A1	577th Track Maintenance TA 244	Used Oil	500
5069-A2	577th Track Maintenance TA 244 80/90	Fresh Oil	300
5069-A3	577th Track Maintenance TA 244 W40	Fresh Oil	300
5069-A4	577th Track Maintenance TA 244 10W	Fresh Oil	300
5071-A1	TA 244 Maintenance	Used Oil	55
5071-A2	TA 244 Maintenance	Used Oil	55
5086-A2	TA-244 Fuel Point	Diesel	10,000
5101-A1	CDTF Backup Generator Supply	Diesel	400
5101-A2	CDTF Backup Generator Supply	Diesel	2,500
5101-A3	CDTF Treated Wastewater Tank 1	Decontaminated Wastewater	10,000
5101-A4	CDTF Treated Wastewater Tank 2	Decontaminated Wastewater	10,000
5101-A5	CDTF Treated Wastewater Tank 3	Decontaminated Wastewater	10,000
5101-A6	CDTF Generator Day Tank	Diesel	300
5200-A1	South Gate Emergency Generator	Diesel	1,400
5262-A1	Motor Pool - 10W Oil	Fresh oil	300
5262-A2	Motor Pool - 15W40	Fresh oil	300
5262-A3	Motor Pool - 80/90 Oil	Fresh oil	500
5265-14	Underground Storage Tank	Diesel/Oil	4,000
5265-7	Underground Storage Tank	Diesel/Oil	4,000
5265-8	Underground Storage Tank	Diesel/Oil	4,000
5265-A1	Motor Pool Diesel	Diesel	500
5265-A2	Motor Pool Diesel	Diesel	300
5265-A3	Motor Pool - Dextron	Fresh Oil	500
5265-A4	Motor Pool 30W Fresh Oil	Fresh Oil	500
5265-A5	Motor Pool 80/90 Gear Oil	Fresh Oil	500
5267-A6	Transportation Motor Pool	BioDiesel	10,000
5285-A1	Range Maintenance	Diesel	280
2581-A1	TFW Central Collection Boiler Tank	Fuel Oil #2	5,000
5086-A1	TA-244 Fuel Point Tank	Diesel	10,000
5465-A3	TA 401 Fog Oil Training	Diesel	500
6119-A1	BCT Phase III Lift Station Generator	Diesel	100

Tanks			
Emission Source	Description	Contents	Capacity (gallons)
663-A1	Air Force Detachment	Diesel	300
663-A2	Air Force Detachment - Generator Tank	Diesel	200
6800-A1	West Gate Emergency Generator	Diesel	750
941-A1	Building 941 Generator	Diesel	750
950-A1	900 Motor Pool 10W40	Fresh Oil	600
950-A2	900 Motor Pool 80/90 Oil	Fresh Oil	250
979-A1	Building 979 - Electrical Equipment Building	Diesel	160
5074-A1	577 th Tr. Div. TA 244 Tank	Used/Waste Oil	1,000
5074-A2	577 th Training Div. TA 244 Tank	Diesel	1,000
990-A1	900 Motor Pool	Fresh Oil	300
990-A2	900 Motor Pool	Fresh Oil	280
998-A1	900 Motor Pool	Used Oil	500
TA221-A1	FOB Thunder	Diesel	600
TA223-A1	FOB Generator	Diesel	500
TA246-A1	CBITEC Generator	Diesel	500
TA246-A2	CBITEC Generator	Diesel	500
TA246-A3	CBITEC Generator	Diesel	500
WA224-A1	WA-224	Diesel	1,000
CDTF-A1	CDTF Generator	Diesel	275
CDTF-A2	CDTF	Diesel	2,500
CDTF-A3	CDTF Generator	Diesel	175

Emergency Engines	
Emission Source	Description
GEN198	Communication Shelter 5282A Cummins Generator, 74 HP, 4-Stroke Rich Burn, Propane, 2008
GEN803	ECS Lift Station Ford Generator, 60 HP, 4-Stroke Rich Burn, Natural Gas, 9/1/2006

Parts Washers		
Building Number	Facility Occupant/Unit	Number of Parts Washers
629	1-48 B Co.	1
635	1-48 D/E Co.	1
638	232nd EN Co.	1
659	3rd BN 10th Inf Regt.	1
668	232nd 94 EN BN.	1
672	77th EN Co.	1
673	FSC	1
673	94th MD DET.	2
811	35th EN BN HHD	2
815	A Co. 701st	1
816	31st EN BN B Co.	1
818	701st MP BN A Co.	1
939 CTA	787th MP BN A Co.	1
950	Tacom 58th Trans	6
950 QUICK	Tacom 58th Trans	2
990	Tacom 58th Trans 5 Ton	2

Parts Washers		
Building Number	Facility Occupant/Unit	Number of Parts Washers
991	Tacom 58th Trans	1
971	Advanced Law Enforcement	2
1134	Instructor Company Marine Corp. Det.	2
1270	MO National Guard	2
1383	Auto Craft Shop	1
1594	Lawn Mower Shop	2
2097	701st MP BN A Co.	1
2303	14 MP BDE	2
2308	Tacom 58th Trans.	1
2388	92nd MP (BN Motor Pool)	1
2436	Bldg 2436	1
5012	Flight Facility	1
5053	EN Support Maintenance	3
5053 LAMS 1	EN Support Maintenance	1
5069	EN Support Maintenance	3
5069 LAMS 2	EN Support Maintenance	4
5070	D Co. 554 (power Trans)	1
5156	TACOM FMX (Evasive Driving Course)	3
5261	14th MP BDE	6
5265	LRC Weapon, ETC	2
5265	Tacom FMX (Maintenance Shop)	14
5265	Tacom FMX9 Weapons Shop	1
5265	Tacom FMX (Recovery Building)	2
5265	Tacom FMX (Weapons Area)	6
5265	GEM Shop	8
5265	Componet Repair	1
5265	Tire and Alighment	1
5266	Tacom Paint Shop	2
5561	Marine Corp Detachment	1
6103	35th EN BN C Co.	2
6104	35th EN BN D Co.	2
10322	EN Support Maintenance	1
10323	EN Support Maintenance	1
10324	EN Support Maintenance	1
12630	Prime Power School	2
12700	EN Support Maintenance	3

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the CFR and CSR for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The plant wide conditions apply to all emission units at this installation. All emission units are listed in Section I under Emission Units with Limitations or Emission Units without Limitations.

PERMIT CONDITION PW001

10 CSR 10-6.060 Construction Permits Required
Construction Permit 082002-024D, Issued January 1, 2009¹

National Ambient Air Quality Standards:

1. Special Condition 2.A: When the ambient concentration of PM₁₀ reaches a maximum measured three-hour PM₁₀ rolling average of 300 µg/m³ at one or more of the stations in the PM₁₀ monitoring network as measured by real-time monitoring station located at the approved USA MANSCEN-FLW monitoring sites (unless alternative levels are approved by the Director).
 - a) The permittee shall review for the period surrounding elevated monitored PM₁₀ concentrations, the ambient PM₁₀ concentration, meteorological monitoring data, and any other potential sources or reasons that the permittee believes may be causing or contributing toward the elevated ambient PM₁₀ concentration. The permittee shall document any such review(s), and provide the documentation quarterly to the Air Pollution Control Program.
2. Special Condition 2.B: When the ambient concentration of PM₁₀ reaches a maximum measured 12-hour PM₁₀ rolling average concentration of 150 µg/m³ at one or more of the stations in the PM₁₀ monitoring network as measured by real-time monitoring station located at the approved USA MANSCEN-FLW monitoring sites (unless an alternative levels are approved by the Director).
 - a) The permittee shall notify the Air Pollution Control Program's Compliance/Enforcement Section, and provide preliminary information that contains times and locations for any potential sources or reasons that the permittee believes may be causing or contributing toward the elevated ambient PM₁₀ concentration to the Air Pollution Control Program within seven days of monitoring an elevated ambient PM₁₀ reading meeting the criteria established in Special Condition 2.B.
 - b) The permittee shall document sources that may have contributed to the rise in PM₁₀ concentration for the period surrounding elevated monitored PM₁₀ concentrations meeting the criteria established in Special Condition 2.B. and shall, identify the major PM₁₀ sources (e.g. industrial emissions, dust storms, open burning, agricultural activities, transported emissions, and training activities). These emission sources shall be as clearly quantified as possible, including at least pounds per day, location, and duration of emissions for each training activity, and as explicit an accounting of other emissions in terms of quantity, duration and location as possible. Meteorological parameters in Table 3 of Construction Permit 082002-024D shall be incorporated into this analysis, such that each parameter in the table shall be discussed, and as explicitly as possible, the apparent effect of each on the monitor impact. Quantification of these parameters shall be included in explaining these effects. This documented record of sources shall be

¹ This permit condition is a state-only requirement.

- submitted to the Air Pollution Control Program within 45 days and a copy retained to be made available immediately to Missouri Department of Natural Resources' personnel upon request.
- c) If it can be reasonably concluded from the review required under Special Conditions 2.A or 2.B that the activities at the installation contributed to the elevated ambient PM_{10} concentrations, then the permittee shall submit an action plan sufficient to address the reason(s) and/or cause(s) for the elevated PM_{10} concentrations meeting the criteria established in Special Condition 2.B. The action plan shall contain reasonable available control measures that will control emissions for stationary and non-stationary sources of PM_{10} emissions that may be the reason(s) and/or cause(s) for the elevated ambient PM_{10} concentrations. The action plan shall be submitted within 45 days or as soon as available after the occurrence of the elevated ambient PM_{10} reading meeting the criteria established in Special Condition 2.B. This 45-day reporting deadline may be adjusted upon approval of the Director of the Air Pollution Control Program upon written request.
 - d) Based on the review in Special Conditions 2.A and 2.B, the permittee may develop and submit for approval known sources of ambient impact that are repetitive and events or related activities that do not activate the actions required under Special Condition 2.B. The well-documented and defined events or activities for consideration under the Special Condition 2.B exemption list are to be submitted to the Director for approval. The intent is for the permittee not to respond continually to repetitive events or activities with a known cause.
3. Special Condition 2.C: Required actions for monitored PM_{10} concentrations greater than $120 \mu\text{g}/\text{m}^3$ based on a 24-hour rolling average at one or more of the stations in the PM_{10} monitoring network (unless the Director approves alternative levels).
 - a) The permittee shall complete the required reviews and development of the action plan under Special Conditions 2.A and 2.B, if the elevated PM_{10} concentration level in Special Condition 2.C is reached without initially triggering Special Conditions 2.A and 2.B.
 4. Special Condition 2.D: Required actions for monitored PM_{10} concentrations greater than $135 \mu\text{g}/\text{m}^3$ based on a 24-hour rolling average at one or more of the stations in the PM_{10} monitoring network (unless the Director approves alternative levels).
 - a) From the review under Special Conditions 2.A, 2.B and 2.C, the corrective action plan is to be implemented immediately and until levels reach $120 \mu\text{g}/\text{m}^3$ or less, on a rolling 24-hour average for 12 consecutive hourly averages.
 - b) The Director may recommend additional control measures to be implemented upon the permittee reporting monitoring an elevated ambient PM_{10} reading meeting the criteria established in Special Condition 2.D.
 - c) The permittee shall try to determine the reason(s) and/or cause(s) for the elevated ambient PM_{10} impacts and shall send a report of their findings and/or conclusions to the Air Pollution Control Program within three days of recording the elevated ambient PM_{10} concentration(s) meeting the criteria established in Special Condition 2.D. Upon written request, the Director of the Air Pollution Control Program may adjust the three-day reporting deadline.

General Recordkeeping Requirement:

Special Condition 4: The permittee shall maintain all records required by this permit for not less than five years unless an alternate record keeping retention time is specifically established for an operation(s) and/or activity(s) in this permit. The permittee shall make all such records available to Missouri Department of Natural Resources' personnel upon request.

Meteorological Monitoring Requirements and Recordkeeping:

Special Condition 5: The permittee shall measure (or calculate) and record the following meteorological parameters, on an on-going basis, at the following location previously approved for fog oil training (Bailey-McCann) under Air Pollution Control Program project number 3860-0004-015 and project number 1998-11-105 and also at the Forney airfield meteorological site.

Table 3 of Construction Permit 082002-024D: Meteorological Parameters

Meteorological Parameter	Minimum Frequency for Measurement
Atmospheric Stability	Three-minute averages
Wind Speed and Direction	Three-minute averages
Ambient Air Temperature at two meters	Three-minute averages
Ambient Air Temperature at 10 meters	Three-minute averages
Atmospheric Pressure	Three-minute averages
Relative Humidity	Three-minute averages
Solar Radiation	Three-minute averages
Precipitation	One-hour
Mixing Height Data Springfield, MO Airport Sounding Data	As collected by SGF

Re-evaluation of Meteorological Monitoring Sites:

1. Special Condition 6.A: If fog oil or Flame Field Expedient (FFE) training is to be conducted at an alternate training site (i.e. from the sites evaluated in this permit or a new fog oil/FFE training site reviewed in a subsequent evaluation), the permittee shall evaluate the need to conduct additional meteorological monitoring at or near the new proposed training site.
2. Special Condition 6.B: The permittee shall maintain the current five Tapered Element Oscillating Microbalance (TEOM) sites (North Gate, Cemetery, Big Piney, Macedonia, and Delafield) that will no longer be required under this permit. For the purpose of easily placing the TEOMs back in service should any subsequent, required periodic review indicate that additional monitoring sites are warranted based on changes to training, training locations, or other indications that the reduced TEOM network should be expanded. This requirement shall be fulfilled so long as the permittee is able to put any former TEOM site into full operation within 180 days of being so notified by the state. The remaining four TEOMs (Helton, Morgan, Sapper, and Forney) shall remain operational in accordance with the provisions of this permit.
3. Special Condition 6.C: The permittee shall complete the above additional meteorological monitoring evaluation and submit any proposed revisions and/or additions to the Air Pollution Control Program for review and approval or provide a justification to the Air Pollution Control Program as to why the current meteorological monitoring system does not need to be altered before beginning training at the new site.
4. Special Condition 6.D: The permittee shall begin to implement any approved revision(s) to the meteorological monitoring system immediately upon Air Pollution Control Program approval.

PM₁₀ Ambient Monitoring Network Requirements:

1. Special Condition 7.A: The permittee shall install, operate, and maintain a system of ambient air monitoring stations for PM₁₀ along the installation's property boundaries and in the Cantonment Area at this installation. This ambient PM₁₀ monitoring network shall be installed, operated, and maintained according to the specifications in Special Conditions 7.B through 7.E.

2. Special Condition 7.B: The PM₁₀ monitoring network approved under this permit shall consist of at least four TEOM monitors. This minimum number of monitors and/or the type of monitor required may be revised by a subsequent re-evaluation of the current PM₁₀ monitoring network and/or Quality Assurance Project Plan (QAPP) for PM₁₀.
3. Special Condition 7.C: The permittee shall locate all new PM₁₀ monitors required to be installed by this permit or by a future re-evaluation of the PM₁₀ monitoring network such that the monitors will measure ambient air, or be as close to the boundary as practicable given property requirements, cost requirements, and Fort Leonard Wood Master Planning Security Requirements.
 - a) Monitoring System Scheduled Re-evaluations and Future Proposed Changes
 - i) The permittee shall submit proposed revisions to this QAPP for Air Pollution Control Program review and approval or alternatively provide a justification as to why the current QAPP does not need to be altered within 30 days of January 8, 2009. Until such time as the new QAPP for PM₁₀ is reviewed, approved and implemented or a no change required justification is approved by the Air Pollution Control Program, the permittee shall continue to collect the above air quality monitoring data for all existing PM₁₀ monitors or new PM₁₀ monitors added under this permit according to the procedures included the most recent QAPP approved by the Air Pollution Control Program. The permittee shall periodically re-evaluate the most recently approved QAPP for the PM₁₀ Ambient Air Monitoring network according to the following schedule:
 - (1) Starting after a two year period from January 8, 2009, the permittee shall re-evaluate the PM₁₀ monitoring network and the most recently approved QAPP for appropriateness based on the training activities that are being conducted at the time of the re-evaluation. This re-evaluation shall, at a minimum, consider if there is a need to change the number, type, and/or the location(s) of the ambient monitors in current PM₁₀ monitoring network.
 - (2) At least once in every five year period after the initial two year period, the permittee shall again re-evaluate the PM₁₀ monitoring network and the most recently approved QAPP for appropriateness based on the training activities that are being conducted at the time of the re-evaluation. This re-evaluation shall, at a minimum, consider if there is a need to change the number, type, and/or the location(s) of the ambient monitors in the current PM₁₀ monitoring network.
 - (3) If fog oil and/or Flame Field Expedient (FFE) training is to be conducted at an alternate training site (i.e. from the locations or sites evaluated in this permit or a new fog oil training site reviewed in a subsequently re-evaluation), the permittee shall re-evaluate the existing PM₁₀ monitoring network and the most recently approved QAPP for PM₁₀ for appropriateness based on conducting these training activities at a new fog oil/FFE training site(s) at this installation.
 - (4) The permittee shall complete the above re-evaluation(s) and submit any proposed revisions of the current QAPP for PM₁₀ to the Air Pollution Control Program for review and approval or provide a justification to the Air Pollution Control Program as to why the current monitoring network and/or QAPP for PM₁₀ does not need to be altered within six months of beginning the above re-evaluation. The above deadlines and submittals for re-evaluation of the PM₁₀ monitoring network and QAPP may be extended upon approval by the Director of the Air Pollution Control Program.
 - (5) The permittee shall begin to implement immediately upon Air Pollution Control Program approval and shall complete within a reasonable time frame, any approved revision(s) to the existing PM₁₀ monitoring network and/or QAPP required by Special Conditions 7.A through 7.E or in the case of an approved “no change required” justification,

- (6) The permittee shall continue to comply with the most recently approved QAPP until the next re-evaluation of the PM₁₀ monitoring network and QAPP has been completed.
- (7) The above deadlines and submittals related to the PM₁₀ monitoring network may be extended upon approval by the Director of the Air Pollution Control Program.
4. Special Condition 7.D: The permittee shall periodically re-evaluate the most recently approved QAPP for PM₁₀ that was originally submitted and approved for Air Pollution Control Program project number 1998-11-105. The permittee shall submit proposed revisions to this QAPP for Air Pollution Control Program review and approval. Until such time as a new QAPP for PM₁₀ is reviewed and approved by the Air Pollution Control Program, the permittee shall continue to collect the above air quality monitoring data for all existing PM₁₀ monitors or new PM₁₀ monitors added under this permit according to the procedures included in the QAPP approved for Air Pollution Control Program project number 1998-11-105.
5. Special Condition 7.E: The permittee shall develop a standard operating procedures (SOP) plan to address, at a minimum, the repair and/or replacement of ambient monitors and the procedures for conducting new training activities added under this permit during periods of malfunction of one or more monitors in the ambient PM₁₀ monitoring network. The above SOP plan shall be submitted for Air Pollution Control Program review and approval. The permittee shall operate under the above proposed SOP plan until receiving Air Pollution Control Program comments about revising the plan and/or upon receiving final Air Pollution Control Program approval of the plan.

Ambient PM₁₀ Monitoring, Recordkeeping, and Reporting Requirements:

1. Special Condition 8.A: The permittee shall record the results of the above air quality monitoring for PM₁₀, at a minimum, on a ¹/₂ hour basis from each PM₁₀ monitor in the monitoring network.
2. Special Condition 8.B: The permittee shall calculate, on an on-going basis, a consecutive rolling 24-hour average concentration for PM₁₀, a rolling 12-hour average concentration for PM₁₀, and a rolling three-hour average concentration for PM₁₀, using the above monitoring data for each PM₁₀ monitor in the monitoring network.
3. Special Condition 8.C: The permittee shall calculate, on a monthly basis, a 12-month consecutive average concentration for PM₁₀ using the above monitoring data for each PM₁₀ monitor in the monitoring network.
4. Special Condition 8.D: The permittee shall report the results of the above air quality monitoring for PM₁₀ to the Air Pollution Control Program on a quarterly basis. The permittee shall retain the records of the pre-fog oil monitoring data indefinitely and shall retain any subsequent air quality monitoring records for PM₁₀ required by this permit for a minimum period of at least 10 years.

Fog Oil Restrictions:

1. Special Condition 11.A: The permittee shall only use an approved fog oil material (currently designated as SGF-2 at the time of issuance of this permit) to generate smoke during the obscurant training activities conducted at this installation. The fog oil material, as used at this installation, shall comply with the most recent approved Army specifications for smoke generating material and shall comply with the following properties and characteristics:
 - a) The above fog oil material shall be severely hydro treated (if necessary) to remove polycyclic aromatic hydrocarbons (PAHs) and their nitrogen and oxygen analogues unless the permittee complies with one of the following conditions:
 - i) The permittee uses an alternate method(s) of treating the fog oil material (besides severely hydro treating) to insure that the PAHs are removed from the fog oil material, provided that these method(s) are functionally equivalent or better in removing PAHs from the fog oil

material than the severely hydro treated method mentioned above. Any proposed alternative method of treating the fog oil material shall be submitted and receive approval from the Director of the Air Pollution Control Program prior to its use.

- ii) The above severely hydro treating requirement may be waived, upon approval from the Director of the Air Pollution Control Program, for any fog oil materials that can be shown not to contain PAHs;
 - b) The above approved fog oil material shall contain no carcinogenic or potentially carcinogenic constituents as defined under the Hazard Communication Standard (HCS) 29 CFR 1910.1200 as demonstrated by the carcinogenic testing required by the appropriate Military Performance Specification for the fog oil material being used. (Note: Alternate methods of testing, from those mentioned above, would require Air Pollution Control Program approval before being acceptable to demonstrate compliance with this requirement); and
 - c) The above fog oil shall contain no more than 0.5% by weight of any single hazardous air pollutant as defined by 10 CSR 10-6.020(3)(C), "Table 3 – Hazardous Air Pollutants." The combination of all HAPs in the fog oil shall comprise no more than 1% of the fog oil by weight.
2. Special Condition 11.B: The permittee is prohibited from using any fog oil material designated as PY8035000 on the Registry of Toxic Effects of Chemical Substances (RTECS) of the National Institute for Occupational Safety and Health (NIOSH) to create smoke for any obscurant training at this installation.
 3. Special Condition 11.C: Besides the specific approved fog oil material evaluated in this review, the permittee may use alternative material(s) approved for use by the Headquarters Department of the Army to generate obscurant at this installation provided the following conditions are met:
 - a) The usage of the new obscurant material would not result in an increase in the potential emissions of any air pollutant over those calculated for the fog oil material approved in this permit. This potential emissions increase exclusion applies to both the emissions from the obscurant material itself and to any other directly related emission source(s) (i.e. fuel usage for the obscurant generators);
 - b) The new proposed obscurant material(s) complies with product specification restriction(s) listed in Special Condition 11.A;
 - c) The permittee submits a request for Air Pollution Control Program review and approval for the usage of the new proposed fog oil material. This request should include supporting documentation that is sufficient to demonstrate that the above restrictions would be met; and
 - d) The permittee does not conduct any obscurant training using this new proposed material(s) without prior approval from the Director of the Air Pollution Control Program in writing.
 4. Special Condition 11.D: The permittee, and/or their supplier(s) of fog oil, shall collect and analyze samples of the obscurant material(s) to be used at this installation, to verify that the obscurant will meet the Military Specifications for the specific type of obscurant being used and that the fog oil will also comply with the product restrictions established in Special Condition 11.A.
 5. Special Condition 11.E: If deemed necessary by the Director of the Air Pollution Control Program, the permittee may be required to collect a sample of the above fog oil material(s), as used, and submit this sample to an independent laboratory for testing to confirm the fog oil material(s) being used is in compliance with the appropriate product characteristics and/or Military Specifications required above.
 6. Special Condition 11.F: The permittee shall maintain records of the following fog oil information:
 - a) Military Specifications on each type of fog oil material currently being utilized at this installation and the Military Specifications for previously used fog oil materials (e.g. specifications on any fog oil used after issuance of this permit);

- b) SDS for the fog oil material(s); and
- c) Any testing conducted to demonstrate compliance with Special Conditions 11.D or 11.E.

Fog Oil Additive(s) Restrictions:

Special Condition 12.A: The permittee shall not add any additives to the fog oil material used at this installation [i.e. such as any re-refined oils or any other substance(s) sometimes introduced into fog oil in order to change and/or enhance the obscurant characteristics and/or effectiveness like kerosene to reduce viscosity in cold temperatures, graphite or brass to change or enhance the obscurant's effectiveness, etc.] prior to undergoing a review (i.e. submitting permit applications) and receiving approval from the Missouri Department of Natural Resources.

Fog Oil Generator(s) Restrictions:

1. Special Condition 13.A: The permittee shall be restricted to use only the specific types of fog oil generating equipment approved under this permit (i.e. turbines and pulse jet generators) unless receiving further approval from the Air Pollution Control Program to use an alternative type or newer version of smoke generating equipment.
2. Special Condition 13.B: If the usage of alternative type or newer version of fog oil generating equipment would result in an increase in the potential air emissions from the equipment over the levels as calculated in this permit review, the permittee shall submit either a new permit application or an applicability determination request for the change and receive approval from the Air Pollution Control Program prior to usage of the alternative type or newer version of fog oil generating equipment. (Note: This increase in potential emissions comparison applies to the emissions from both the fog oil generators and from any potential increase in the amount of fog oil material used.)

Alternate Non-Petroleum Based Fog Oil Requirements:

Special Condition 14.A: If the Headquarters Department of the Army should approve the use of a nonpetroleum based material for fog oil training and a subsequent environmental impact assessment is completed for the installation, the permittee shall prepare and submit a report to the Air Pollution Control Program evaluating the suitability and effects on air emissions if the non-petroleum based material would be substituted for the existing obscurant material being used.

Requirements for a Network of Observers During Field Obscurant Training Exercises:

Special Condition 15.A: At all times during a field obscurant training exercise, a network of observers shall be stationed at locations appropriate to observe the behavior of generated smoke and to make a determination as to whether the generated smoke could cross the permittee's property boundary or enter the Cantonment Area at this installation. These observers shall maintain continuous electronic and/or visual communication with the operators of the smoke generating equipment. If at any time during a field obscurant training exercise, the condition or the behavior of the smoke should cause the observers to reasonably anticipate that visible smoke could cross any of the boundaries indicated above, then the observer(s) shall immediately notify the operators of the smoke generating equipment of this anticipated deviation. The operators of the smoke generating equipment shall immediately shut down the smoke generating equipment upon such notification until such time that the likelihood that the smoke could cross the boundary has ceased.

Soil and Vegetation Sampling Frequency:

1. Special Condition 16.A. Upon January 8, 2009, the permittee shall collect and analyze soil and vegetation samples at each location specified in the most recently approved Soil and Vegetation Sampling Plan (SVSP), in accordance with the schedule listed below:
 - a) From January 8, 2013 to January 8, 2019, the permittee shall collect and analyze the above SVSP samples, only when large scale obscurant training has occurred within the previous calendar year. Large scale training is defined as more than 100 gallons of fog oil training, more than 25 gallons used for FFE training or more than seven smoke pots during a single 24 hour period. Sampling that does occur should be done during the growing season unless otherwise approved by the Air Pollution Control Program. The permittee shall submit proposed revisions to this SVSP for Air Pollution Control Program review and approval and the proposed revisions shall be received by the Air Pollution Control Program before any sampling required under this revision is conducted.
 - b) After January 8, 2019, the permittee shall collect and analyze the above SVSP samples at least once in every five year period (during a growing season unless otherwise approved by the Air Pollution Control Program); and
 - c) The permittee may petition the Air Pollution Control Program to alter and/or discontinue this SVSP sampling after the initial five year sampling period indicated above, but shall continue to conduct this SVSP sampling in accordance with the above schedule until receiving such approval, in writing, from the Director of the Air Pollution Control Program.
2. Special Condition 16.B: Record Retention Requirements
 - a) The permittee shall report the results of the above SVSP sampling and analysis to the Air Pollution Control Program within 90 days of the date the samples are collected. The permittee shall retain any SVSP sampling records conducted prior to January 8, 2009 indefinitely and shall retain any subsequent SVSP sampling and analysis for a minimum period of at least 30 years.

Periodic Re-evaluation of Soil and Vegetation Sampling Plan:

1. Special Condition 17.A: At least once in every five year period or if fog oil training is to be conducted at an alternate training site [i.e. from the sites originally proposed in Air Pollution Control Program project number 3860-0004-015 and/or project number 1998-11-105 (Ballard, Bailey-McCann, Mush Paddle, or Musgrave) or a new fog oil training site reviewed in a subsequent re-evaluation], the permittee shall re-evaluate the most recently approved SVSP for appropriateness based on the training activities that are being conducted at the time of the re-evaluation (or will be conducted for new fog oil training sites) at this installation.
 - a) The permittee shall complete the above re-evaluation and submit any proposed revisions of the current SVSP to the Air Pollution Control Program for review and approval or provide a justification to the Air Pollution Control Program as to why the current SVSP does not need to be altered within six months of beginning the above re-evaluation. The above SVSP submittal deadline may be extended upon approval by the Director of the Air Pollution Control Program.
 - b) The permittee shall implement any approved revision(s) to the current SVSP immediately upon Air Pollution Control Program approval or shall continue to comply with the most recently approved SVSP until the next re-evaluation of the SVSP has been completed should the Air Pollution Control Program approve the “no change required” justification.

Restriction on Causing or Contributing to a Public Safety Hazard During Training:

Special Condition 19.A: The new fog oil, flame field expedient or smoke pots training added under Construction Permit 082002-024D shall not be conducted so as to constitute or contribute to a safety

hazard to air traffic and/or vehicular traffic on highways accessible to the public during any of these training exercises.

Continuing Nuisance Dust Situation - Corrective Action Plan Requirements:

Special Condition 20.A: If a continuing situation of demonstrated nuisance dust exists where the presence of PM₁₀ in the ambient air exists in quantities and durations that directly or proximately cause or contribute to injury to human, plant, or animal life or health, or to property, or that unreasonably interferes with the enjoyment of life or the use of property, the Director may require the permittee to submit a corrective action plan within 10 days adequate to timely and significantly mitigate the emission of PM₁₀. The permittee shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of this permit.

New Source Review (NSR) Permits – Fugitive Sources:

Special Condition 21.A: New Source Review governs the issuance of new permits for the construction of new or modified stationary sources of PM₁₀. For instance, permitted emissions for equipment are regulated by an NSR permit. Systematic patterns of activity (i.e. training activities) are fugitive sources of PM₁₀ emissions. Future new training activities, which emit exclusively fugitive PM₁₀, would not require a NSR permit solely because of the training activity. However, new or modified equipment, which emit any non-fugitive PM₁₀, and/or any other regulated pollutant associated with new or increased levels of training will require NSR review for permit need.

General Reporting Requirement:

The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION PW002

10 CSR 10-6.065(6)(C)2.A Voluntary Permit Condition

Emission Limitation:

1. The permittee shall emit less than 25.0 tons per year of combined HAP from the entire installation in any consecutive 12-month period. This limit includes all HAP emission sources currently permitted for use at the installation (boilers, water heaters, space heaters, generators, engines, tanks, asphalt drum dryers, asphalt silo filling, asphalt heaters, parts washers, and paint booths) and any new HAP emission sources added to the installation under the provisions of 10 CSR 10-6.061 during the effective period of this permit.
2. The permittee shall emit less than 10.0 tons per year of each individual HAP from the entire installation in any consecutive 12-month period. This limit includes all HAP emission sources currently permitted for use at the installation (boilers, water heaters, space heaters, generators, engines, tanks, asphalt drum dryers, asphalt silo filling, asphalt heaters, parts washers, and paint booths) and any new HAP emission sources added to the installation under the provisions of 10 CSR 10-6.061 during the effective period of this permit.

Monitoring/Recordkeeping:

1. The permittee shall maintain records of monthly and 12-month rolling total combined HAP emissions using Attachments K, L, and M or equivalent forms approved by the Air Pollution Control Program.

2. The permittee shall maintain records of monthly and 12-month rolling total emissions of each individual HAP using Attachments K and L or equivalent forms approved by the Air Pollution Control Program.
3. The permittee shall maintain all records required by this permit for not less than five years and shall make them available to Missouri Department of Natural Resources' personnel upon request.
[§70.6(a)(3)(ii)]

Reporting:

1. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which records indicate an exceedance of the emission limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
[§70.6(a)(3)(iii)]
3. The permittee shall submit a semi-annual report (in conjunction with their semi-annual monitoring report and annual compliance certification) containing a list of all existing HAP emission sources (boilers, water heaters, space heaters, generators, engines, tanks, asphalt drum dryers, asphalt silo filling, asphalt heaters, parts washers, and paint booths) at the installation and specifically note any new HAP emission sources added to the installation during the six month reporting period under a construction permit exemption in 10 CSR 10-6.061. For each HAP emission source identified, the permittee shall list which of the approved HAP emission factors/calculation methodologies in Attachment K is being used to demonstrate compliance.

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the CFR and CSR for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

PERMIT CONDITION 001		
10 CSR 10-6.060 Construction Permits Required		
Construction Permit 032015-007, Issued March 6, 2015		
Construction Permit 032015-017A, Issued May 11, 2016		
Emission Unit	Description	Control Equipment
051A	Aggregate Handling Bins, 184 tph	None
052B	Aggregate Handling Conveyor, 552 tph	None
053C	Vibrating Screen, 184 tph	None
054D	Drum Dryer, 50 MMBtu/hr Fuel Oil #2, 200 tph	Baghouse
055E	Plant Loadout, 200 tph	None
056F	Silo Loading, 200 tph	None
057G	Asphalt Heater, 2.2 MMBtu/hr Fuel Oil #2	None
058H	Storage Piles, 184 tph, 0.17424 VMT/hr, 1 acre	BMPs
059I	Unpaved Haul Road, 0.46597 VMT/hr	BMPs
060J	Cummins Diesel Generator, 1,207 HP	None
061K	Cummins Diesel Generator, 369 HP	None

Operational Limitations:

1. Construction Permit 032015-007 Special Condition 1: The permittee shall control fugitive emissions from all of the haul roads and vehicular areas at the asphalt plant while the plant is in operation by performing BMPs as defined in Attachment A.
2. Construction Permit 032015-007 Special Condition 3.A: The permittee shall control emissions from 054D Drum Dryer using a baghouse.
3. Construction Permit 032015-007 Special Condition 3.B: The baghouse shall be operated and maintained in accordance with the manufacturer’s specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. The gauge or meter shall be located such that Department of Natural Resources’ employees may easily observe it.
4. Construction Permit 032015-007 Special Condition 3.C: Replacement filters for the baghouse shall be kept on hand at all times. The filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
5. Construction Permit 032015-007A Special Condition 3.A: The permittee shall burn ultra-low sulfur diesel fuel (15 ppm) in 054D Drum Dryer, 057G Asphalt Heater, 060J Cummins Diesel Generator, and 061J Cummins Diesel Generator.
6. Construction Permit 032015-007 Special Condition 5: The permittee shall ensure that 054D Drum Dryer is located at least 1,000 feet from the nearest property boundary.

Emission Limitation:

Construction Permit 032015-007A Special Condition 2.A: The permittee shall emit less than 40.0 tons of NO_x in any consecutive 12-month period from the asphalt plant.

Monitoring/Recordkeeping:

1. Construction Permit 032015-007A Special Condition 2.B: The permittee shall maintain records of monthly and 12-month rolling total NO_x emissions from the asphalt plant using Attachment B or an equivalent form, such as an electronic form, approved by the Air Pollution Control Program.
2. Construction Permit 032015-007 Special Condition 3.D: The permittee shall monitor and record the operating pressure drop across the baghouse at least once every 24 hours while in operation. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance specifications.
3. Construction Permit 032015-007 Special Condition 3.E: The permittee shall maintain a copy of the baghouse manufacturer's performance specifications on site.
4. Construction Permit 032015-007 Special Condition 3.F: The permittee shall maintain an operating and maintenance log for the baghouse which shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
5. Construction Permit 032015-007A Special Condition 3.B: The permittee shall obtain records of the fuel's sulfur content from the vendor for each shipment of fuel received or by testing each shipment of fuel for the sulfur content in accordance with the method described in 10 CSR 10-6.040 *Reference Methods*.
6. Construction Permit 032015-007 Special Condition 6: The permittee shall maintain all records required by this permit for not less than five years and make them available to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Construction Permit 032015-007 Special Condition 7: The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which records indicate an exceedance of the NO_x emission limitation. [§70.6(a)(3)(iii)]
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 002		
10 CSR 10-6.060 Construction Permits Required		
Construction Permit 012015-001, Issued January 16, 2015		
Emission Unit	Description	Control Equipment
8	Bldg 5265 Furniture Paint Booth, 0.07 gal/hr	Fabric Filter
9	Bldg 5265/5266 Vehicle Paint Booths, 0.818 gal/hr	Fabric Filter
30	Bldg 5138 Paint Booth, 4.77 gal/hr	Fabric Filter

Emission Limitation:

Special Condition 2.A: The permittee shall emit less than 20.0 tons of VOC in any consecutive 12-month period from the paint booths (emission units 8, 9, and 30).

Monitoring/Recordkeeping:

1. Special Condition 2.C: The permittee shall maintain monthly and 12-monthly rolling total emissions of VOC from the paint booths (emission units 8, 9, and 30) using Attachment C or an equivalent form approved by the Air Pollution Control Program.
2. Special Condition 5.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available to Missouri Department of Natural Resources' personnel upon request. These records shall include SDS for all materials used.

Reporting:

1. Special Condition 5.B: The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which records indicate an exceedance of the VOC emission limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 003	
10 CSR 10-6.060 Construction Permits Required Construction Permit 062003-015A, Issued July 18, 2013	
Emission Source	Description
GEN962	Airport Main Gate Code 21345 Kohler Generator, 567 HP, Diesel, 2003

Operational Limitation:

1. Special Condition 2: The permittee shall operate Bldg 5003 Emergency Diesel Generator in compliance with 10 CSR 10-6.061(3)(A)2.BB:
 - a) The emergency generator shall be used only for emergency services, provided that the maximum annual operating hours shall not exceed 500 hours. Emergency generators are exempt only if their sole function is to provide back-up power when electric power from the local utility is interrupted. This exemption only applies if the emergency generator is operated only during emergency situations and for short periods of time to perform maintenance and operational readiness testing. The emergency generator shall be equipped with a non-resettable meter.

Reporting:

The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 004	
10 CSR 10-6.060 Construction Permits Required Construction Permit 052013-012, Issued May 23, 2013	
Emission Source	Description
002BB	Bldg 311A Hurst Boiler, 25.25 MMBtu/hr natural gas or fuel oil #2, 2012

Operational Limitation:

Special Condition 1.A: The permittee shall combust exclusively pipeline grade natural gas or ultra-low sulfur distillate fuel oil in the boiler (EP-002BB).

Monitoring/Recordkeeping:

1. Special Condition 1.B: The permittee shall maintain fuel usage and supplier certification records in accordance with §60.44c(g), §60.44c(h), §60.46c(d)(1), §60.46c(d)(2), §60.48c(f), §60.48(g)(1), §60.48(g)(2), and §60.48(g)(3).
2. Special Condition 2.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available to Missouri Department of Natural Resources' personnel upon request.

Reporting:

The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 005		
10 CSR 10-6.060 Construction Permits Required Construction Permit 0995-017B, Issued March 8, 2013		
Emission Source	Description	Control Equipment
EU0001	Cedar Rapids Truck Loading, 150 tph	None
EU0002	Cedar Rapids Scalping Screen, 150 tph	Spray Bars
EU0003	Cedar Rapids Primary Crusher, 150 tph	Spray Bars
EU0004	Cedar Rapids (3) Conveyors and a Hopper, 600 tph	Spray Bars
EU0005	Cedar Rapids Primary Screening, 300 tph	Spray Bars
EU0006	Cedar Rapids Secondary Crushing, 150 tph	Spray Bars
EU0007	Cedar Rapids (3) Conveyors from Secondary Crusher, 450 tph	Spray Bars
EU0008	Cedar Rapids Secondary Screening, 150 tph	Spray Bars
EU0009	Cedar Rapids (7) Conveyors/Stackers, 300 tph	Spray Bars
EU0010	Cedar Rapids Tertiary Screening, 150 tph	Spray Bars
EU0011	Cedar Rapids Truck Unloading at Feeder, 150 tph	None
Q631P	Cummins Diesel Generator, 240 HP	None
Q631Q	Cummins Diesel Generator, 240 HP	None
Q631R	Cummins Diesel Generator, 240 HP	None
23B	Drilling: Cedar Rapids 150 tph, Thunderbird 150 tph	Wet
23J	Cedar Rapids Unpaved Haul Road Return to Pit, 0.01 miles	Water Spray
23	Unpaved Haul Road Loadout from Pit: Cedar Rapids 0.25 miles, Thunderbird 0.25 miles	Water Spray
23A	Storage Pile 5 acres: Cedar Rapids 150 tph & 0.25 VMT, Thunderbird 150 tph & 0.25 VMT	None
EU0014	Cummins Primary Crusher Engine, 215 HP	None
EU0015	Cummins Secondary Crusher Engine, 315 HP	None
EU0016	Cummins Tertiary Crusher Engine, 215 HP	None
EU0017	Cummins Water Pump Engine, 100 HP	None

Emission Limitation:

Special Condition 2: The permittee shall emit less than 13.0 tons of PM₁₀ from this rock crushing plant in any consecutive 12-month period.

Operational Limitation:

1. Special Condition 5.A: The permittee shall use a water suppression system to control PM₁₀ emissions from the following equipment:
 - a) EU0003 Cedar Rapids Primary Crusher;
 - b) EU0004 Cedar Rapids (3) Conveyors and a Hopper;
 - c) EU0005 Cedar Rapids Primary Screening;
 - d) EU0006 Secondary Crushing;
 - e) EU0007 Cedar Rapids (3) Conveyors from Secondary Crushing;
 - f) EU0008 Cedar Rapids Secondary Screening;
 - g) EU0009 Cedar Rapids (7) Conveyors/Stackers; and
 - h) EU0010 Cedar Rapids Tertiary Screening.
2. Special Condition 5.B: The water suppression system shall be in use at all times the rock crushing plant is in operation and the amount of water applied shall be sufficient in quantity so as to prevent the emission of “visible” particulate matter from these sources. Use of the watering system may be discontinued during periods of freezing conditions or excessive rainfall, if no “visible” emissions are occurring.

Monitoring/Recordkeeping:

1. Special Condition 3: The permittee shall maintain an accurate record of PM₁₀ emissions emitted into the atmosphere from this rock crushing plant. The permittee shall maintain records of monthly and 12-month rolling total PM₁₀ emissions from the rock crushing plant using Attachment G or an equivalent form approved by the Air Pollution Control Program.
2. The permittee shall conduct daily visible emissions readings on these emission units using the procedures contained in U.S. EPA Test Method 22. Readings are only required when the emission units are operating and when the weather conditions allow. If no visible emissions are observed using these procedures, then no further observations would be required. Visible emissions monitoring is not required if precipitation of greater than one quarter of an inch has occurred within the previous 24 hours.
3. Special Condition 5.C: The permittee shall maintain records of the following information:
 - a) The date, duration of event, and reason(s) why the watering system was not in used while the rock crushing plant was in operation;
 - b) Any incidents of malfunction of the watering system, impact on emissions and any corrective actions taken;
 - c) Information on watering system maintenance activities, inspection schedule and any repair actions performed on the system.
4. The permittee shall maintain records of all observation results using Attachment E or an equivalent form noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units and
 - b) All emission units from which visible emissions occurred.
5. These records shall be made available immediately for inspection to the Department of Natural Resources’ personnel upon request.
6. All records shall be maintained for five years.

Reporting:

1. Special Condition 4: The permittee shall report to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days

after the end of the month during which records indicate an exceedance of the PM₁₀ emission limitation.

2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 006		
10 CSR 10-6.060 Construction Permits Required Construction Permit 092008-001, Issued September 3, 2008		
Emission Source	Description	Operational Status
046	(4) General Motors EMD Diesel Generators, 2012 HP each, Manufactured in 2013	Non-emergency
047	(6) Fermont Diesel Generators, 1006 HP each, Manufactured in 2013	Non-emergency
048	(7) Caterpillar DPGDS Diesel Generators, 1126 HP each, Manufactured in 2013	Non-emergency
12630-A1	5,000 gallon Prime Power School Diesel Tank	Exclusive fuel supply for emission sources 046, 047, and 048
12630-A2	5,000 gallon Prime Power School Diesel Tank	

Emission Limitation:

Special Condition 1.A: The permittee shall emit less than 40.0 tons of NO_x from 046 (4) General Motors EMD Diesel Generators, 047 (6) Fermont Diesel Generators, and 048 (7) Caterpillar DPGDS Diesel Generators in any consecutive 12-month period.

Operational Limitation:

1. The permittee shall ensure that fuel consumed by 046 (4) General Motors EMD Diesel Generators, 047 (6) Fermont Diesel Generators, and 048 (7) Caterpillar DPGDS Diesel Generators is exclusively supplied by 12630-A1 and 12630-A2 (2) 5,000 gallon Prime Power School Diesel Tanks.
2. The permittee shall equip 12630-A1 and 12630-A2 (2) 5,000 gallon Prime Power School Diesel Tanks with a meter/gauge which indicates the instantaneous quantity of diesel contained within the tank.

Monitoring/Recordkeeping:

1. Special Condition 1.B: Attachment H or an equivalent form approved by the Air Pollution Control Program shall be used to track monthly and 12-month rolling total NO_x emissions. Each of the electric generator sets shall be equipped with a non-resettable hour meter to record the hours of operation. The permittee shall maintain all records required by this permit for not less than five years and shall make them available to Missouri Department of Natural Resources' personnel up on request.
2. The permittee shall record the quantity of fuel contained within 12630-A1 and 12630-A2 (2) 5,000 gallon Prime Power School Diesel Tanks at the end of each calendar month as well as immediately before and immediately after any time fuel is added to the tanks.

Reporting:

1. Special Condition 1.C: The permittee shall report to the Air Pollution Control Program's Compliance & Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which records indicate an exceedance of the NO_x emission limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 007					
10 CSR 10-6.065(6)(C)2.A Voluntary Permit Condition					
BOILERS					
Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel Type	Manufacturer	Installation Date
100	3	1 each	Natural Gas	Hydrotherm	Unknown
181	3	1 each	Propane	Hydrotherm	2008
311A	1	10.25	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Kewanee	1984
311A	1	25.25	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Hurst	2012
311A	1	16.8	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Superior	2005
312	2	1.5 each	Natural Gas	Cleaver Brooks	2010
315	3	0.5 each	Natural Gas	Mod-Con	2011
330	2	0.97 each	Natural Gas	Aerco (KC Series)	2012
404	2	0.445 each	Natural Gas	Fulton	1995
406	1	<10	Natural Gas	Lochinvar	Unknown
406	1	<10	Natural Gas	Lochinvar	Unknown
450	2	0.133 each	Natural Gas	Hydrotherm	Unknown
470	2	0.3 each	Natural Gas	Hydrotherm	1995
470	4	1 each	Natural Gas	Hydrotherm	2005
486	1	0.5	Natural Gas	Mod-Con	2011
490	2	0.15 each	Natural Gas	Lochinvar	2014
493	2	1 each	Natural Gas	Fuptera Fusion	2011
498	1	1.5	Natural Gas	Ray-Pak	2012
499	2	0.5 each	Natural Gas	Lochinvar	2015
580	1	0.5	Natural Gas	Mod-Con	2011
590	1	0.7	Propane	HB Smith	2004
606	1	0.675	Natural Gas	Fulton	1992
607	1	1	Natural Gas	Fulton	1992
607	2	0.675 each	Natural Gas	HB Smith	1992
608	3	0.5 each	Natural Gas	Knight/Lochinvar	2011
615	1	0.129	Natural Gas	Parker	1994
616	1	0.75	Natural Gas	Patterson/Kelley	2011
625	2	0.5 each	Natural Gas	Mod-Con	2011
626	2	0.286 each	Natural Gas	Knight/Lochinvar	2011
627	4	0.5 each	Natural Gas	Mod. Con	2011
628	4	0.5 each	Natural Gas	Mod Con	2011
629	4	0.5 each	Natural Gas	MOD CON	2011
630	4	1 each	Natural Gas	Hydrotherm	2008
630	2	1.47 each	Natural Gas	Columbia	2001
631	1	0.5	Natural Gas	Knight/Lochinvar	2015
632	4	0.3 each	Natural Gas	Hydrotherm	2001
633	2	0.286 each	Natural Gas	Knight/lochinvar	2011

634	4	0.5 each	Natural Gas	MOD CON	2011
635	4	0.5 each	Natural Gas	MOD CON	2011
636	2	0.286 each	Natural Gas	Knight/lochivar	2011
637	2	0.5 each	Natural Gas	Knight/lochivar	2011
638	2	0.151 each	Natural Gas	Knight/Lochinvar	2011
639	2	0.286 each	Natural Gas	Knight/Lochinvar	2011
640	2	1.526 each	Natural Gas	Smith	2001
650	2	0.211 each	Natural Gas	Knight/Lochinvar	2010
651	6	0.3 each	Natural Gas	Hydrotherm	2001
652	6	0.3 each	Natural Gas	Hydrotherm	2001
653	4	1 each	Natural Gas	Hydrotherm	2008
653	2	1.47 each	Natural Gas	Columbia	2001
654	6	0.3 each	Natural Gas	Hydrotherm	2001
655	2	0.286 each	Natural Gas	Knight/lochivar	2011
656	4	0.15 each	Natural Gas	Hydrotherm	2001
657	4	1 each	Natural Gas	Hydrotherm	2008
658	2	0.211 each	Natural Gas	Lochinvar	2010
659	6	0.3 each	Natural Gas	Hydrotherm	2001
660	6	0.3 each	Natural Gas	Hydrotherm	2001
663	3	0.175 each	Propane	Weil McLain	1989
730	4	0.5 each	Natural Gas	MOD-CON	2011
731	4	0.5 each	Natural Gas	MOD-CON	2011
732	2	0.211 each	Natural Gas	Lochinvar	2010
733	2	0.286 each	Natural Gas	Knight/Lochinvar	2011
734	2	0.286 each	Natural Gas	Knight/Lochinvar	2011
735	3	1 each	Natural Gas	Hydrotherm	2008
735	2	1.47 each	Natural Gas	Columbia	2001
736	7	0.5 each	Natural Gas	MOD-CON	2011
737	2	0.7 each	Natural Gas	Armor	2014
737	2	0.6 each	Natural Gas	Knight/Lochinvar	2014
738	2	0.7 each	Natural Gas	Armor	2014
738	2	0.6 each	Natural Gas	Knight/Lochinvar	2014
739	3	1 each	Natural Gas	Hydrotherm	2008
739	2	1.47 each	Natural Gas	Columbia	2001
740	2	0.5 each	Natural Gas	Mod-Con	2014
741	2	0.286 each	Natural Gas	Knight/Lochinvar	2011
742	3	0.3 each	Natural Gas	Hydrotherm	2001
743	2	0.151 each	Natural Gas	Knight/Lochinvar	2011
744	2	0.286 each	Natural Gas	Knight/Lochinvar	2011
746	1	1.526	Natural Gas	Smith	1999
746	2	1.526 each	Natural Gas	Smith	2008
747	2	0.601 each	Natural Gas	Kinght Lochinvar	2013
747	2	0.701 each	Natural Gas	Armor Lochinvar	2013
748	4	0.5 each	Natural Gas	Mod-Con	2011
749	2	0.3 each	Natural Gas	Hydrotherm	1999
750	2	0.211 each	Natural Gas	Knight/Lochinvar	2011
751	2	0.286 each	Natural Gas	Knight/Lochinvar	2011
752	2	0.286 each	Natural Gas	Knight/Lochinvar	2011
753	2	0.211 each	Natural Gas	Knight/Lochinvar	2011

754	3	1 each	Natural Gas	Hydrotherm	2008
754	2	0.8 each	Natural Gas	Hurst	1999
755	2	0.601 each	Natural Gas	Kinght Lochinvar	2013
755	2	0.701 each	Natural Gas	Armor Lochinvar	2013
756	2	0.601 each	Natural Gas	Kinght Lochinvar	2013
756	2	0.701 each	Natural Gas	Armor Lochinvar	2013
757	2	0.601 each	Natural Gas	Kinght Lochinvar	2013
757	2	0.701 each	Natural Gas	Armor Lochinvar	2013
768	1	0.5	Propane	Mod-Con	2013
786	1	0.725	Propane	HB Smith	2003
804	3	0.5 each	Natural Gas	Mod-Con	2011
805	2	0.5 each	Natural Gas	Mod-Con	2011
815	1	<10	Natural Gas	Knight/Lochinvar	Unknown
815	1	<10	Natural Gas	Knight/Lochinvar	Unknown
815	1	<10	Natural Gas	Knight/Lochinvar	Unknown
815	1	<10	Natural Gas	Knight/Lochinvar	Unknown
816	2	0.601 each	Natural Gas	Knight/Lochinvar	2011
816	2	0.601 each	Natural Gas	Armor/ Lochinvar	2011
817	2	0.601 each	Natural Gas	Knight/ Lochinvar	2011
817	2	0.601 each	Natural Gas	Armor/ Lochinvar	2011
818	2	0.601 each	Natural Gas	Knight/ Lochinvar	2011
818	2	0.601 each	Natural Gas	Armor/ Lochinvar	2011
819	2	2 each	Natural Gas	Aerco	2010
820	2	0.3 each	Natural Gas	Hydrotherm	2008
820	2	2.1 each	Natural Gas	Fulton	2011
821	1	<10	Natural Gas	Cleaver Brooks	2015
821	1	<10	Natural Gas	Cleaver Brooks	2015
822	2	0.211 each	Natural Gas	Knight/Lochinvar	2011
823	1	0.15	Natural Gas	Knight/Lochinvar	2010
824	2	0.286 each	Natural Gas	Knight/Lochinvar	2011
825	2	0.286 each	Natural Gas	Knight/Lochinvar	2011
826	2	1.526 each	Natural Gas	Smith	2001
827	2	2 each	Natural Gas	AERCO	2010
828	2	2 each	Natural Gas	Fulton	2009
829	2	2 each	Natural Gas	Fulton	2009
830	2	2 each	Natural Gas	Fulton	2009
831	2	2 each	Natural Gas	Fulton	2009
832	2	0.151 each	Natural Gas	Knight/Lochinvar	2011
835	2	0.286 each	Natural Gas	Knight/Lochinvar	2011
836	12	0.3 each	Natural Gas	Hydrotherm	2001
836	2	2 each	Natural Gas	Fulton	2010
837	6	0.3 each	Natural Gas	Hydrotherm	2001
838	2	0.3 each	Natural Gas	Fulton	2010
840	2	0.3 each	Natural Gas	Fulton	2010
841	2	0.286 each	Natural Gas	Knight/Lochinvar	2011
842	2	0.3 each	Natural Gas	Knight/Lochinvar	2011
843	2	0.501 each	Natural Gas	Knight/Lochinvar	Unknown
844	2	0.286 each	Natural Gas	Knight/Lochinvar	Unknown
890	2	0.5 each	Natural Gas	Mod-Con	2011

901	2	1 each	Natural Gas	Hydrotherm	2012
902	2	1 each	Natural Gas	Hydrotherm	2012
908	2	0.724 each	Natural Gas	Keystone	2015
908	2	0.475 each	Natural Gas	Mod-Con	2015
908	2	0.95 each	Natural Gas	Mod-Con	2015
930	2	1.5 each	Natural Gas	Cleaver Brooks	2013
932	2	1.5 each	Natural Gas	Cleaver Brooks	2013
934	2	1.5 each	Natural Gas	Cleaver Brooks	2013
935	2	1.5 each	Natural Gas	Cleaver Brooks	2013
936	2	1.5 each	Natural Gas	Cleaver Brooks	2013
937	2	1.5 each	Natural Gas	Cleaver Brooks	2013
939	2	1.5 each	Natural Gas	Cleaver Brooks	2013
950	2	0.5 each	Natural Gas	Fulton	2005
961	3	0.5 each	Natural Gas	Mod-Con	2011
964	2	0.299 each	Natural Gas	Elite	2012
971	2	0.299 each	Natural Gas	Elite	2012
980	2	0.399 each	Natural Gas	Elite	2015
1000	1	2.2	Natural Gas	Burnham	2009
1000	1	1.75	Natural Gas	Burnham	1993
1021	1	42	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Cleaver Brooks	2010
1021	1	42	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Cleaver Brooks	2010
1300	3	1.5 each	Natural Gas	RBI	2010
1300	1	2	Natural Gas	Ray Pak (pool)	Unknown
1310	1	0.3	Propane	Fulton	2008
1350	1	0.75	Propane	Fulton	2004
1390	1	0.106	Propane	Knight/Lochinvar	2011
1549	1	1.0332	Propane	Columbia	2014
1601	1	0.6	Natural Gas	HB Smith	2003
1607	2	1 each	Natural Gas	Cleaver Brooks	2012
1609	1	0.675	Natural Gas	Fulton	1992
1784	2	1.5 each	Natural Gas	Ray pack	2011
1785	2	0.211 each	Natural Gas	Unknown	2011
1786	1	0.85	Natural Gas	Ray Pack	2011
1787	1	0.85	Natural Gas	Ray Pack	2011
1788	1	0.85	Natural Gas	Ray Pack	2011
1789	1	<10	Natural Gas	Ray Pack	2013
1789	1	<10	Natural Gas	Ray Pack	2013
1789	2	0.6 each	Natural Gas	Hydrotherm	2013
2100	2	0.6 each	Natural Gas	Hydrotherm	2010
2105	3	2.0922 each	Natural Gas	Cleaver Brooks	2010
2107	2	0.5 each	Natural Gas	Knight/Lochinvar	2010
2108	3	0.5 each	Natural Gas	Lochinvar/Knight	2011
2109	3	0.5 each	Natural Gas	Lochinvar/Knight	2011
2109	2	0.5 each	Natural Gas	Lochinvar/Knight	2011
2130	3	0.5 each	Natural Gas	Fulton	2006
2130	1	<10	Natural Gas	Ray Pack	2013

2130	1	<10	Natural Gas	Ray Pack	2013
2215	1	2.092	Propane	Highlander	1969
2250	1	0.5	Propane	Fulton	2003
2273	1	0.5	Propane	Columbia	2008
2322	1	1.1718	Propane	Kewanee	1978
2322	2	1.1718 each	Propane	Unknown	2011
2330	1	1.733	Propane	Smith	2008
2369	1	23.25	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Unilux	2015
2369	1	23.25	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Unilux	2015
3205	2	1.5 each	Natural Gas	Ray Pack	2012
3223	2	2 each	Natural Gas	Aerco	2008
4109	2	0.51 each	Natural Gas	Hydrotherm	2010
5001	1	0.5	Propane	Mod-Con	2002
5050	1	0.5	Propane	Mod-Con	2013
5051	1	1	Propane	Superior	2014
5052	1	0.837	Propane	Peerless	1992
5053	6	0.3 each	Propane	Hydrotherm	2000
5069	1	0.106	Propane	Knight/Lochinvar	2011
5070	1	0.106	Propane	Knight/Lochinvar	2011
5071	2	0.15 each	Propane	Elite	2014
5072	1	0.5	Propane	Fulton	Unknown
5074	2	1.08 each	Propane	H.B. Smith	1997
5138	1	0.286	Natural Gas	Knight/Lochinvar	2011
5265	4	3 each	Natural Gas	AERCO/Benchmark	Unknown
5267	2	0.22 each	Natural Gas	Elite	2014
5295B	2	1 each	Propane	RBI	2010
5400	2	1 each	Natural Gas	Clever Brooks	Unknown
5410	2	0.3 each	Propane	Fulton	Unknown
5415	2	0.3 each	Propane	Fulton	2000
5421	1	0.139	Propane	Lochinvar	2014
5429	1	0.6	Propane	Hydrotherm	2011
5429A	2	0.5 each	Propane	Mod-Con	2014
5474	2	0.5 each	Propane	Knight/Lochinvar	2012
5475	1	0.4	Propane	Knight/Lochinvar	2012
5476	2	0.5 each	Propane	Knight/Lochinvar	2012
6100	1	0.454	Natural Gas	AERCO	2011
6100	1	0.199	Natural Gas	A O Smith	2011
6101	2	1.5 each	Natural Gas	Knight/Lochinvar	2011
6101	1	0.909	Natural Gas	AERCO	2011
6102	2	1.5 each	Natural Gas	Knight/Lochinvar	2011
6102	1	0.909	Natural Gas	AERCO	2011
6103	2	1.5 each	Natural Gas	Knight/Lochinvar	2011
6103	1	0.909	Natural Gas	AERCO	2011
6104	2	1.5 each	Natural Gas	Knight/Lochinvar	2011
6104	1	0.909	Natural Gas	AERCO	2011
6105	1	1.26	Natural Gas	AERCO	2012

6105	2	1.5 each	Natural Gas	A O SMITH	2012
6111	4	0.5 each	Natural Gas	Knight/Lochinvar	2011
6111	1	1.06	Natural Gas	AERCO	2011
6140	2	0.4 each	Natural Gas	Knight/Lochinvar	2012
6141	2	1.5 each	Natural Gas	Ray-Pack	2011
6141	2	1.999 each	Natural Gas	Ray-Pack	2011
6142	4	1.999 each	Natural Gas	Ray-Pack	2011
6143	2	1 each	Natural Gas	Hydrotherm	2012
6146	2	1 each	Natural Gas	Hydrotherm	2012
6147	2	1 each	Natural Gas	Hydrotherm	2012
6501	1	2	Natural Gas	Smith	2011
7391	2	0.85 each	Natural Gas	Mod Con	2011
9625	2	0.6 each	Natural Gas	Knight/Lochinvar	2015
11400	2	0.701 each	Natural Gas	Knight/Lochinvar	2013
11402	2	0.22 each	Natural Gas	Elite	2014
11405	2	0.22 each	Natural Gas	Mod-Con elite	2011
11405	1	0.22	Natural Gas	A.O. Smith	2011
11410	2	0.22 each	Natural Gas	Mod-Con elite	2011
11410	1	0.22	Natural Gas	A.O. Smith	2011
11470	2	0.22 each	Natural Gas	Mod-Con	2011
11480	2	0.1 each	Natural Gas	Hydrotherm	2011
12350	2	0.75 each	Natural Gas	Fulton	2011
12630	1	2	Natural Gas	Fulton	2011
12630	1	1.25	Natural Gas	A O Smith	2011
12700	1	0.75	Natural Gas	Burnham	1993
CDTF	6	1 each	Natural Gas	Fulton/PHW	Unknown
CDTF	1	4.5	Natural Gas	Cleaver Brooks	Unknown

HOT WATER HEATERS

Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel	Manufacturer
318	2	0.075 each	Natural Gas	Bock
319	1	0.085	Natural Gas	Bock
450	1	0.199	Natural Gas	Bock
486	1	0.08	Natural Gas	AO Smith
487	2	0.3 each	Natural Gas	AO Smith
487	1	0.075	Natural Gas	AO Smith
490	1	0.19	Natural Gas	Bock
491	2	0.12 each	Natural Gas	Unknown
498	1	0.199	Natural Gas	Bock
499	1	0.125	Natural Gas	Bock
560	1	0.1	Natural Gas	Ruud
580	1	0.12	Natural Gas	Phoenix
606	1	0.05	Natural Gas	State
608	1	0.13	Natural Gas	Rheem
615	1	0.5	Natural Gas	Lochinvar
616	1	0.75	Natural Gas	AO Smith
688	1	0.2	Propane	Rheem
703	1	0.2	Propane	Rheem
722	1	0.2	Propane	Rheem

760	1	0.2	Propane	Rheem
805	1	0.2	Natural Gas	Bock
811	1	0.399	Propane	Ruud
822	1	0.36	Natural Gas	Unknown
838	1	0.199	Natural Gas	Unknown
901	1	0.15	Natural Gas	AO Smith
901	2	0.4 each	Natural Gas	AO Smith
902	2	0.4 each	Natural Gas	AO Smith
902	1	0.15	Natural Gas	AO Smith
930	1	0.6	Natural Gas	Turbo Power
932	1	0.25	Natural Gas	AO Smith
932	2	0.12 each	Natural Gas	AO Smith
932	2	1.5 each	Natural Gas	AO Smith
934	1	0.85	Natural Gas	AO Smith
934	1	1.7	Natural Gas	AO Smith
934	1	0.25	Natural Gas	AO Smith
934	1	0.12	Natural Gas	AO Smith
934	1	1.5	Natural Gas	AO Smith
936	2	0.12 each	Natural Gas	AO Smith
936	2	1.5 each	Natural Gas	AO Smith
936	1	0.25	Natural Gas	AO Smith
937	1	0.25	Natural Gas	AO Smith
937	2	0.12 each	Natural Gas	AO Smith
937	2	1.5 each	Natural Gas	AO Smith
939	1	0.25	Natural Gas	AO Smith
939	2	0.12 each	Natural Gas	AO Smith
939	2	1.5 each	Natural Gas	AO Smith
1300	1	2.5	Natural Gas	PVI
1353	2	0.5 each	Natural Gas	AO Smith
1354	2	0.5 each	Natural Gas	AO Smith
1786	2	0.85 each	Natural Gas	Unknown
1787	2	0.85 each	Natural Gas	Unknown
1788	2	0.85 each	Natural Gas	Unknown
2107	1	1.2	Natural Gas	PVI
2108	1	1.2	Natural Gas	PVI
2109	1	1.2	Natural Gas	PVI
2130	1	1.5	Natural Gas	State
2482	1	0.038	Propane	AO Smith
3205	1	0.5	Natural Gas	AO Smith
3223	2	1.5 each	Natural Gas	PVI
4109	1	0.3	Natural Gas	Rudd
5059	1	0.199	Propane	Ruud
5064	1	0.199	Propane	Ruud
5138	1	0.199	Natural Gas	State
5295B	1	0.199	Natural Gas	Ruud/Rheem
5415	1	0.075	Propane	Ruud
6021	1	0.12	Propane	AO Smith
6100	1	<10	Natural Gas	Cyclone
6140	1	0.199	Natural Gas	Rheem/Ruud

6141	1	2	Natural Gas	Unknown
6142	1	2	Natural Gas	Unknown
6143	2	0.5 each	Natural Gas	AO Smith
6146	2	0.5 each	Natural Gas	AO Smith
6147	3	0.5 each	Natural Gas	AO Smith
6501	1	0.1	Natural Gas	Ruud
9039	8	0.038 each	Natural Gas	AO Smith
9041	6	0.038 each	Natural Gas	AO Smith
9045	6	0.038 each	Natural Gas	AO Smith
9047	8	0.038 each	Natural Gas	AO Smith
9057	4	0.038 each	Natural Gas	AO Smith
9059	6	0.038 each	Natural Gas	AO Smith
9061	4	0.038 each	Natural Gas	AO Smith
9100	8	0.038 each	Natural Gas	AO Smith
9101	4	0.038 each	Natural Gas	AO Smith
9102	4	0.038 each	Natural Gas	AO Smith
9104	2	0.038 each	Natural Gas	AO Smith
9107	2	0.038 each	Natural Gas	AO Smith
9108	2	0.038 each	Natural Gas	AO Smith
9109	2	0.038 each	Natural Gas	AO Smith
9110	6	0.038 each	Natural Gas	AO Smith
9111	6	0.038 each	Natural Gas	AO Smith
9112	4	0.038 each	Natural Gas	AO Smith
9113	4	0.038 each	Natural Gas	AO Smith
9115	4	0.038 each	Natural Gas	AO Smith
9117	4	0.038 each	Natural Gas	AO Smith
9619	4	0.038 each	Natural Gas	AO Smith
9625	1	0.3	Natural Gas	ACE Countryman
10226	1	0.12	Propane	State
11400	1	<10	Natural Gas	Rheem
11416	1	<10	Natural Gas	Rheem
11416	1	<10	Natural Gas	Rheem
11417	1	<10	Natural Gas	Rheem
11417	1	<10	Natural Gas	Rheem
11480	1	0.3	Natural Gas	AO Smith
12350	1	1.5	Propane	AO Smith
12630	1	0.5	Natural Gas	AO Smith
SPACE HEATERS				
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer
150	1	0.25	Natural Gas	Lennox
150	1	0.14	Natural Gas	Lennox
320	1	<10	Natural Gas	Ruud
320	2	<10 each	Natural Gas	Fraser Johnson
340	1	<10	Natural Gas	Unknown
380	4	<10 each	Propane	Unknown
486	1	<10	Natural Gas	Reznor
487	10	0.48 each	Natural Gas	Aaon
487	1	0.18	Natural Gas	Aaon
487	2	0.26 each	Natural Gas	Aaon

487	5	0.078 each	Natural Gas	Reznor
487	6	0.125 each	Natural Gas	Aaon
491	1	0.39	Natural Gas	Aaon
491	2	0.18 each	Natural Gas	Aaon
496	1	0.125	Natural Gas	Janitrol
560	5	0.08 each	Natural Gas	York
561	1	0.15	Propane	Ruud
562	1	0.15	Propane	Ruud
563	1	0.15	Propane	Ruud
564	1	0.15	Propane	Ruud
565	2	0.15 each	Propane	Ruud
566	1	0.12	Propane	Unknown
567	1	0.125	Propane	Ruud
568	1	0.125	Propane	Ruud
569	1	0.12	Propane	Rheem
664	1	0.15	Propane	Rheem
665	1	0.15	Propane	Ruud
669	1	0.15	Propane	Ruud
680	2	0.175 each	Propane	Sterling
681	2	0.175 each	Propane	Modine
681	1	0.1	Propane	Ruud
684	2	0.5 each	Propane	Reznor
686	1	0.12	Propane	Philco
687	1	0.12	Propane	Philco
688	2	0.15 each	Propane	Rheem
689	1	0.12	Propane	Philco
690	1	0.12	Propane	Philco
691	1	0.15	Propane	Ruud
692	1	0.15	Propane	Ruud
693	1	0.15	Propane	Ruud
701	1	0.12	Propane	Philco
702	1	0.12	Propane	Philco
703	2	0.15 each	Propane	Rheem
704	1	0.12	Propane	Philco
705	1	0.12	Propane	Philco
706	1	0.15	Propane	Ruud
707	1	0.15	Propane	Ruud
708	2	0.5 each	Natural Gas	Trane
709	1	0.15	Propane	Ruud
710	1	0.15	Propane	Ruud
720	1	0.15	Propane	Ruud
721	1	0.15	Propane	Ruud
722	2	0.15 each	Propane	Rheem
723	1	0.12	Propane	Philco
724	1	0.12	Propane	Philco
725	1	0.15	Propane	Ruud
726	1	0.15	Propane	Ruud
727	1	0.15	Propane	Ruud
728	1	0.15	Propane	Ruud

741	1	0.075	Natural Gas	Addison
758	1	0.12	Propane	Philco
759	1	0.12	Propane	Philco
760	2	0.15 each	Propane	Rheem
761	1	0.12	Propane	Goodman
762	1	0.12	Propane	Philco
764	1	0.15	Propane	Ruud
766	1	0.15	Propane	Ruud
772	2	0.175 each	Propane	Sterling
773	2	0.175 each	Propane	Sterling
780	2	0.25 each	Propane	Beacon
780	1	0.05	Propane	Ruud
781	2	0.175 each	Propane	Sterling
791	1	0.12	Propane	Philco
805	1	0.875	Natural Gas	Fulton
806	1	0.15	Propane	Ruud
807	1	0.15	Propane	Ruud
808	1	0.15	Propane	Ruud
809	1	0.15	Propane	Ruud
810	1	0.15	Propane	Ruud
811	1	0.3	Propane	Reznor
812	1	0.15	Propane	Ruud
813	1	0.15	Propane	Ruud
814	1	0.15	Propane	Ruud
820	1	<10	Natural Gas	Unknown
853	2	0.15 each	Propane	Ruud
854	1	0.15	Propane	Ruud
857	1	0.15	Propane	Ruud
859	1	0.15	Propane	Ruud
872	2	0.175 each	Propane	Modine
873	2	0.175 each	Propane	Modine
880	2	0.175 each	Propane	Sterling
881	2	0.175 each	Propane	Sterling
894	4	0.92 each	Propane	Goodman
911	1	<10	Propane	McQuay
911	2	0.1 each	Propane	American Std.
912	2	0.1 each	Propane	American Std.
950	2	<10 each	Natural Gas	Forced Air
962	1	0.1	Natural Gas	Coleman
962	5	0.08 each	Natural Gas	Coleman
963	5	0.08 each	Natural Gas	Coleman
966	3	0.08 each	Natural Gas	Coleman
968	2	0.04 each	Natural Gas	Coleman
970	2	0.08 each	Natural Gas	Coleman
970	1	0.06	Natural Gas	Coleman
972	1	0.04	Natural Gas	Coleman
973	1	0.04	Natural Gas	Coleman
974	1	0.04	Natural Gas	Coleman
976	1	0.04	Natural Gas	Coleman

977	1	0.04	Natural Gas	Coleman
990	1	0.36	Propane	Co-Ray-Vac
991	1	0.36	Propane	Co-Ray-Vac
998	1	0.36	Propane	Co-Ray-Vac
999	1	0.36	Propane	Co-Ray-Vac
1021	4	0.175 each	Natural Gas	Modine
1026	1	0.123	Propane	Weathermaker
1026	1	0.16	Propane	Weathermaker
1026	1	0.0912	Propane	Weathermaker
1026	1	0.0906	Propane	Weathermaker
1026	1	0.075	Propane	Weathermaker
1026	1	0.3	Propane	Reznor
1067	4	0.2 each	Natural Gas	Reznor
1230	1	0.1	Propane	Ruud
1230	2	0.5 each	Propane	McQuay
1314	1	0.072	Propane	Goodman
1315	1	0.15	Propane	Ruud
1316	2	0.15 each	Propane	Ruud (Rheem)
1317	2	0.15 each	Propane	Ruud
1318	1	<10	Propane	Reznor
1320	1	0.1	Propane	Rheem
1321	2	0.15 each	Propane	Rheem
1322	2	0.15 each	Propane	Ruud
1323	1	0.112	Propane	Borg Warner
1324	1	0.112	Fuel Oil #2	Borg Warner
1353	1	<10	Propane	Unknown
1354	1	<10	Propane	Unknown
1383	6	0.14 each	Propane	Bryant
1390	1	0.09	Propane	Goodman
1391	1	0.14	Propane	Carrier
1391	1	0.12	Propane	Goodman
1445	4	<10 each	Natural Gas	York
1445	2	<10 each	Natural Gas	Reznor
1588	2	0.15 each	Propane	Weather King
1605	1	0.04	Natural Gas	Unknown
1605	1	0.125	Natural Gas	Trane
1605	1	0.2	Natural Gas	Trane
1606	1	0.04	Natural Gas	Trane
1606	1	<10	Natural Gas	Re-Verber-Ray
1612	2	0.105 each	Propane	Reznor
1612	1	0.045	Propane	Modine
1616	1	0.04	Natural Gas	Unknown
1650	1	0.15	Propane	Ruud
1784	5	<10 each	Natural Gas	Unknown
2101	2	0.15 each	Propane	Rheem
2105	5	0.00105 each	Natural Gas	Modine
2137	2	<10 each	Propane	McQuay
2200	1	0.06	Propane	American Std.
2200	1	0.078	Propane	American Std.

2200	1	0.1	Propane	American Std.
2200A	2	0.125 each	Propane	Ruud
2200B	3	<10 each	Propane	Carrier
2201	2	0.125 each	Propane	Goodman
2202	2	0.168 each	Propane	Lenox
2203	2	0.105 each	Propane	Ruud
2204	1	0.25	Propane	Aaon
2207	2	0.15 each	Propane	Goodman
2208	1	0.35	Propane	Reznor
2208	1	0.2	Propane	Singer
2110	2	0.1 each	Natural Gas	Trane
2212	4	0.15 each	Propane	Ruud
2212	1	0.2272	Propane	Thermoflo
2217	2	0.15 each	Propane	Rheem
2219	1	0.08	Propane	Heat Wave
2219B	1	0.075	Propane	Goodman
2220	1	0.1	Propane	Goodman
2222	2	0.15 each	Propane	Ruud
2222	1	0.08	Propane	Goodman
2222	1	0.06	Propane	Goodman
2222	3	0.075 each	Propane	Modine
2224	2	0.1 each	Propane	Ruud
2226	2	0.09 each	Propane	Ruud
2227	1	<10	Propane	Rheem
2229	1	0.15	Propane	Janitrol
2230	3	0.06 each	Propane	Infra-Red
2241	2	0.08 each	Propane	American Std.
2241	1	0.1	Propane	Addison
2272	1	0.15	Propane	Ruud
2290	2	0.115 each	Propane	Goodman
2303	2	0.1 each	Propane	Modine
2305	2	<0.35 each	Fuel Oil #2	Unknown
2306	2	0.12 each	Fuel Oil #2	Weather King
2307	2	0.12 each	Fuel Oil #2	Weather King
2310	2	0.15 each	Propane	Goodman
2310	1	0.045	Propane	Goodman
2313	1	0.15	Propane	Ruud
2314	2	0.16 each	Propane	Dravo Hastings
2319	1	0.25	Fuel Oil #2	Power Matic
2319	2	0.04 each	Propane	Modine
2323	1	0.112	Fuel Oil #2	Air Ease
2324	2	0.15 each	Propane	Ruud
2325	1	0.125	Propane	Goodman
2326	1	0.1	Propane	Ruud
2332	1	0.1	Propane	Goodman
2333	2	0.112 each	Propane	Carrier
2334	1	<10	Propane	Unknown
2336	1	0.1	Propane	Rheem
2336	2	0.35 each	Propane	Modine

2337	1	0.1	Propane	Rheem
2337	2	0.35 each	Propane	Modine
2338	2	0.25 each	Propane	Reznor
2338	1	0.12	Propane	Bryant
2339	1	0.15	Propane	Ruud
2341	2	0.15 each	Propane	Goodman
2342	1	0.15	Propane	Ruud
2343	1	0.15	Propane	Goodman
2344	1	0.15	Propane	Goodman
2345	1	0.15	Propane	Goodman
2347	1	0.09	Propane	Goodman
2347	4	0.08 each	Propane	Ambirad
2390	2	0.065 each	Propane	Reznor
2391	2	0.125 each	Propane	Goodman
2394	2	0.1 each	Propane	Reznor
2395	2	0.1 each	Propane	Bryant
2396	1	<10	Natural Gas	Unknown
2397	1	<10	Propane	Unknown
2435	1	0.075	Propane	Ruud
2482	1	0.15	Propane	Reznor
2549	1	0.095	Used Oil	Shenandoah
2550	1	0.175	Propane	Modine
2550	1	0.25	Propane	Modine
2555	1	0.07	Propane	Goodman
2555	1	0.15	Propane	Ruud
2558	1	0.5	Fuel Oil #2	Power Matic
2560	6	<10 each	Natural Gas	Reznor
2562	1	0.06	Propane	Luxaire
2563	4	0.15 each	Propane	Ruud
2836	1	0.096	Propane	Air Temp
2840	1	0.15	Propane	Bryant
2841	1	0.096	Propane	Air Temp
2842	1	0.1	Propane	BDP
3205	8	<10 each	Natural Gas	Unknown
3209	2	0.1 each	Propane	Trane
3210	1	<10	Natural Gas	McQuay
3220	3	0.1 each	Natural Gas	Trane
3220	1	0.175	Natural Gas	Trane
3220	1	0.05	Natural Gas	Trane
4052	1	0.075	Propane	Ruud
4190	1	0.15	Propane	Rheem
4191	1	0.15	Propane	Rheem
4192	1	0.15	Propane	Airedale
4193	1	0.1	Propane	Goodman
4194	1	0.1	Propane	Heil
4199	1	0.15	Propane	Goodman
4976	4	<10 each	Natural Gas	Unknown
5002	2	0.125 each	Propane	Heil
5004	2	0.15 each	Propane	Ruud/Rheem

5041	2	0.07 each	Propane	Goodman
5042	2	0.15 each	Propane	Ruud
5046	2	<10 each	Propane	Rheem
5047	2	0.15 each	Propane	Ruud
5048	2	0.15 each	Propane	Ruud
5049	2	0.15 each	Natural Gas	Weather King
5049A	1	0.18	Natural Gas	Aaon
5049B	1	0.18	Natural Gas	Aaon
5049C	1	<10	Natural Gas	Reznor
5051	1	<10	Propane	Parker
5054	2	<10 each	Propane	American Std.
5056	1	0.15	Propane	Ruud
5059	2	0.15 each	Propane	Goodman
5064	1	0.12	Propane	Ruud
5075	1	0.125	Propane	Ruud
5076	1	0.125	Propane	Comfort-Aire
5077	1	0.125	Propane	Ruud
5078	1	0.125	Propane	Ruud
5079	1	0.125	Propane	Ruud
5080	2	0.075	Propane	Addison
5080B	1	<10	Propane	Goodman
5081	2	0.075 each	Propane	Addison
5082	1	0.125	Propane	Rheem
5083	1	0.092	Propane	Goodman
5084	1	0.125	Propane	Ruud
5085	1	0.125	Propane	Rheem
5130	1	0.15	Propane	Ruud
5133	1	<10	Propane	McQuay
5144	2	0.1 each	Propane	Rheem
5144	1	0.1	Propane	Sterling
5144	1	0.024	Propane	Sterling
5145	1	0.075	Propane	Rheem
5145	2	0.024	Propane	Sterling
5150	4	0.23 each	Propane	Dornback/Goodman
5153	1	0.1	Propane	Rheem
5153	1	0.05	Propane	Rheem
5153	1	0.03	Propane	Sterling
5154	2	<10 each	Natural Gas	Unknown
5156	4	0.03 each	Propane	Modine
5247	1	0.075	Propane	Venmar
5253	2	0.096	Propane	Nordyne
5254	1	0.105	Propane	Lenox
5259	1	0.088	Propane	Carrier
5259	2	0.04 each	Propane	Reznor
5260	1	0.09	Propane	Goodman
5260	2	0.07 each	Propane	Goodman
5264	1	0.06	Natural Gas	Philco
5268	3	0.075 each	Propane	Co-Ray-Vac
5269	1	<10	Propane	Modine

5270	2	0.15 each	Propane	Ruud
5278	5	0.115 each	Propane	Goodman
5279	1	0.39	Propane	Aaon
5280	1	0.105	Fuel Oil #2	Heil
5285	1	0.1	Propane	Rheem
5289	2	0.125 each	Propane	Nordyne
5289F	1	0.15	Propane	Reznor
5293	4	0.089 each	Propane	Carrier
5293	1	0.024	Propane	Modine
5294	2	0.125 each	Propane	American Std.
5295	2	0.1 each	Propane	Trane
5295	2	0.125 each	Propane	Trane
5307	1	0.18	Propane	Aaon
5315	1	0.18	Propane	Aaon
5342	2	<10 each	Propane	York
5377	1	0.18	Propane	Aaon
5414	1	0.05	Propane	Reznor
5414	1	0.045	Propane	Trane
5418	2	<10 each	Propane	Carrier
5429	1	0.1	Propane	Reznor
5431	1	0.15	Propane	Ruud
5441A	2	<10 each	Propane	Lenox
5451	1	0.06	Propane	Venmar
5451	1	0.075	Propane	Ruud/Rheem
5464	2	0.11 each	Propane	Carrier
5464	3	0.03 each	Propane	Ray Tec
5464	1	0.125	Propane	Modine
5465	8	0.145 each	Propane	Modine
5474	1	<10	Propane	American Std.
5475	1	<10	Propane	Modine
5476	1	<10	Propane	American Std.
5513	2	<10 each	Propane	York
5540	2	0.066 each	Propane	Carrier
5540	1	0.0675	Propane	Modine
5540	1	0.027	Propane	Modine
5583	1	0.046	Propane	Carrier
5585	2	0.11 each	Propane	Carrier
5585	1	0.066	Propane	Carrier
5585	2	0.03 each	Propane	Modine
5585	1	0.2	Propane	Modine
5587	2	0.005 each	Propane	Venmar
5596	1	0.06	Propane	Modine
5712	2	0.11 each	Propane	Carrier
5712	1	0.066	Propane	Carrier
5712	1	0.05	Propane	Reznor
5712	1	0.08	Propane	Reznor
5747	2	<10 each	Propane	York
5748	1	0.066	Propane	Carrier
6005	1	0.08	Propane	Addison

6022	1	0.125	Propane	Ruud
6050	2	0.1 each	Propane	Ruud/Rheem
6105	1	<10	Natural Gas	Trane
6130	1	0.15	Propane	Ruud
6131	1	0.15	Propane	Ruud
6135	1	0.15	Propane	Ruud
6505	1	0.2	Propane	Sterling
9039	8	0.1 each	Natural Gas	Unknown
9041	6	0.1 each	Natural Gas	Unknown
9045	6	0.1 each	Natural Gas	Unknown
9047	8	0.1 each	Natural Gas	Unknown
9057	4	0.1 each	Natural Gas	Unknown
9059	6	0.1 each	Natural Gas	Unknown
9061	4	0.1 each	Natural Gas	Unknown
9100	8	0.1 each	Natural Gas	Unknown
9101	4	0.1 each	Natural Gas	Unknown
9102	4	0.1 each	Natural Gas	Unknown
9104	2	0.1 each	Natural Gas	Unknown
9107	2	0.1 each	Natural Gas	Unknown
9108	2	0.1 each	Natural Gas	Unknown
9109	2	0.1 each	Natural Gas	Unknown
9110	6	0.1 each	Natural Gas	Unknown
9111	6	0.1 each	Natural Gas	Unknown
9112	4	0.1 each	Natural Gas	Unknown
9113	4	0.1 each	Natural Gas	Unknown
9115	4	0.1 each	Natural Gas	Unknown
9117	4	0.1 each	Natural Gas	Unknown
9625	1	<10	Natural Gas	Trane
10166	1	0.15	Propane	Reznor
10200	1	<10	Propane	Unknown
10200	1	0.08	Propane	Ruud
10221	2	0.137	Propane	Trane
10221	1	0.04	Propane	American Std.
10226	1	0.12	Propane	Ruud
10300	1	<10	Propane	Ruud
10301	2	0.2 each	Propane	Goodman
10302	2	0.137 each	Propane	Lennox
10303	3	0.1 each	Propane	American Std.
10304	4	0.1 each	Propane	Reznor
10304	1	0.075	Propane	Reznor
10320	1	0.08	Propane	Heil
10321	1	0.075	Propane	Rheem
10330	1	0.15	Propane	Ruud
10332	2	0.15 each	Propane	Ruud
10333	2	<10 each	Propane	American Std.
10380	2	0.15 each	Propane	Ruud
10382	5	<10 each	Propane	Reznor
11470	2	<10 each	Natural Gas	Unknown
11471	2	<10 each	Natural Gas	Unknown

11473	3	<10 each	Natural Gas	Unknown
11525	2	0.175 each	Natural Gas	Reznor
12115	2	0.09 each	Propane	Aaon
12304	4	0.1 each	Propane	Reznor
12310	1	0.15	Propane	Ruud
12312	2	<10 each	Propane	American Std.
12314	1	0.15	Propane	Philco
12350	4	0.15 each	Natural Gas	Cambridge/Lenox
12382	4	0.1 each	Propane	Reznor
12400	1	0.25	Propane	Rheem
12401	2	0.1 each	Propane	American Std.
12403	2	0.1 each	Propane	Modine
12405	1	<10	Propane	Aaon
12410	1	0.125	Propane	Ruud
12414	1	0.25	Propane	McQuay
12416	2	0.125 each	Propane	American Std.
12422	2	0.1 each	Propane	American Std.
12423	2	0.1 each	Propane	American Std.
12450	2	0.125 each	Propane	American Std.
12452	1	0.15	Propane	Reznor
12454	2	<10 each	Natural Gas	Unknown
12509	2	0.125 each	Propane	American Std.
12510	2	<10 each	Propane	American Std.
12512	2	0.125 each	Propane	American Std.
12517	2	<10 each	Propane	American Std.
12518	1	0.27	Propane	Aaon
12600	1	0.15	Propane	Reznor
12609	1	0.1	Propane	American Std.
12610	1	0.15	Propane	Ruud
12615	1	0.15	Propane	Reznor
12630	2	<10 each	Propane	Frazier Johnston
12630	1	<10	Propane	Goodman
12710	1	0.125	Propane	Ruud
12800	4	0.1 each	Propane	York
12850	2	0.045 each	Propane	Venmar
13102	1	<10	Propane	McQuay
13105	1	<10	Propane	Unknown
13110	1	0.092	Propane	Goodman
13130	4	0.1 each	Propane	Nutone
13131	1	0.15	Propane	Reznor
13132	4	0.15 each	Propane	Reznor
13133	1	0.15	Propane	Reznor
13135	1	<10	Propane	McQuay
13204	2	<10 each	Propane	Trane
13428	1	<10	Propane	Venmar
13447	3	<10 each	Propane	Unknown
13601	1	0.15	Propane	Trane
13602	1	0.15	Propane	Ruud
13632	2	0.14 each	Propane	York

13661	2	0.06 each	Propane	York
OA973	1	0.125	Natural Gas	Goodman

Emission Limitations:

1. The permittee shall emit less than 55.0 tons of NO_x from all boilers, hot water heaters, and space heaters at the installation in any consecutive 12-month period. This limit includes the boilers, hot water heaters, and space heaters indicated in the permit condition header table and all boilers, hot water heaters, and space heaters added to the installation under the provisions of 10 CSR 10-6.061 during the effective period of this permit.
2. The permittee shall emit less than 55.0 tons of SO_x from all boilers, hot water heaters, and space heaters at the installation in any consecutive 12-month period. This limit includes the boilers, hot water heaters, and space heaters indicated in the permit condition header table and all boilers, hot water heaters, and space heaters added to the installation under the provisions of 10 CSR 10-6.061 during the effective period of this permit.

Monitoring/Recordkeeping:

1. The permittee shall maintain records of monthly and 12-month rolling total NO_x emissions from all boilers, hot water heaters, and space heaters at the installation using Attachment I or an equivalent form approved by the Air Pollution Control Program. The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
2. The permittee shall maintain records of monthly and 12-month rolling total SO_x emissions from all boilers, hot water heaters, and space heaters at the installation using Attachment J or an equivalent form approved by the Air Pollution Control Program. The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which records indicate an exceedance of either of the emission limitations. [§70.6(a)(3)(iii)]
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]
3. The permittee shall submit a semi-annual report (in conjunction with their semi-annual monitoring report and annual compliance certification) containing a list of all boilers, hot water heaters, and space heaters at the installation and specifically noting any new boilers, hot water heaters, or space heaters added to the installation during the six month reporting period under a construction permit exemption in 10 CSR 10-6.061.

PERMIT CONDITION 008			
10 CSR 10-6.060 Construction Permits Required Construction Permit 052001-011, Issued April 11, 2001			
Emission Source	Description	Contents	Capacity (gallons)
5138-A1	Reserve Center ECS	Diesel	2,000
5138-A2	Reserve Center ECS	Diesel	10,000
311	Underground Storage Tank	Diesel	6,000
2210-A3	TFW Compound	Diesel	10,000
2210-A4	TFW Compound	Diesel	1,000
5465-A1	TA 401 Fog Oil Training	Diesel	500
5465-A2	TA 401 Fog Oil Training	Diesel	500
987-A1	900 Motor Pool	Diesel	10,000
987-A2	900 Motor Pool	Diesel	10,000
5021-A1	Airport Tank	JP8/JAA/F24	10,000
5021-A2	Airport Tank	JP8/JAA/F24	10,000
5021-A3	Airport Tank	JP8/JAA/F24	10,000
5158-A1	TA 207 Fire Training Area Tank	Diesel	1,000
5267-A3	Transportation Motor Pool Tank	Diesel	12,000
5267-A4	Transportation Motor Pool Tank	Diesel	12,000
5267-A1	Transportation Motor Pool Tank	E85	12,000
5267-A2	Transportation Motor Pool Tank	Gasoline	12,000

Emission Limitation:

Special Condition 2.A: The permittee shall emit less than 25.0 tons of VOC from the listed storage tanks in any consecutive 12-month period.

Monitoring/Recordkeeping:

Special Condition 2.B: The permittee shall maintain records of monthly and 12-month rolling total VOC emissions from the listed storage tanks using Attachment N or an equivalent form approved by the Air Pollution Control Program. The permittee shall maintain these records on-site for not less than five years and shall make them available to Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Special Condition 2.C: The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which records indicate an exceedance of the emission limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 009	
10 CSR 10-6.060 Construction Permits Required Construction Permit 052001-010, Issued April 11, 2001	
Emission Source	Description
8	Bldg 5265 Furniture Paint Booth
9	Bldg 5265/5266 Vehicle Paint Booths
30	Bldg 5138 Paint Booth

Operational Limitation:

Special Condition 3: The permittee shall keep all paints, solvents, thinners, cleaning solutions, and other VOC containing materials used within these paint booths in sealed containers whenever the materials are not in use. The permittee shall provide and maintain suitable, easily read, permanent markings on the containers of all paint, solvent, thinner, cleaning solution, and other VOC containing materials used within these paint booths.

Reporting:

The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 010	
10 CSR 10-6.060 Construction Permits Required Construction Permit 0392-011, Issued March 18, 1992	
Emission Source	Description
023C	Thunderbird Loading, 150 tph
023C	Thunderbird Unloading, 150 tph
023D	Thunderbird Scalping Screen, 150 tph
023E	Thunderbird Primary Crushing, 150 tph
023F	Thunderbird Primary Screening (3-Deck Screening), 150 tph
023G	Thunderbird (9) Conveyors, 1350 tph
023H	Thunderbird Secondary Crushers, 150 tph

General Requirements²:

1. Special Condition 1.1: If the presences of PM₁₀ in the ambient air is detected in quantities and durations that directly or approximately cause or contribute to injury to human, plant, or animal life or health, or to property, or that unreasonably interferes with the enjoyment of life or use of property, or in violation of a state rule, then the permittee shall immediately undertake a program that will correct the problem.
2. Special Condition 1.2: A Report of New Source Location form with the requisite maps and drawings shall be submitted to the Air Pollution Control Program 21 days prior to the relocation of this plant to a site not previously permitted for this installation. For relocation of the plant at a site previously permitted by the Air Pollution Control Program, the form and required information shall be filed no later than seven days prior to the move. Currently permitted locations include:
 - a) Fort Leonard Wood Quarry Site (Site No. 3860-4-21) Pulaski County, S31, T35N, R10W.

Operational Limitations:

1. Special Condition 2.1: The permittee shall not crush, screen, or convey rock in excess of 100,000 tons per consecutive 12-month period in Thunderbird Rock Crushing Plant.
2. Special Condition 2.5: The permittee shall control fugitive emissions from all of the haul roads and vehicular areas at the Thunderbird Rock Crushing Plant while the plant is in operation by performing BMPs as defined in Attachment A.

² These general requirements are state-only requirements.

Monitoring/Recordkeeping:

1. Special Condition 2.2: The permittee shall maintain records the monthly and 12-month rolling total quantity of rock produced by the Thunderbird Rock Crushing Plant using Attachment F or an equivalent form approved by the Air Pollution Control Program.
2. Special Condition 1.3: The permittee shall maintain these records on-site for not less than five years and shall make them available to Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Special Condition 2.C: The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which records indicate an exceedance of the 100,000 tons per year rock crushing limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 011	
10 CSR 10-6.070 New Source Performance Regulations	
40 CFR Part 60, Subpart Dc – Standards of Performance for Small-Industrial-Commercial-Institutional Steam Generating Units	
Emission Source	Description
002BB	Bldg 311A, Dual-fuel (natural gas with fuel oil #2 backup) 25.25 MMBtu/hr Hurst Boiler, 2012
002Z	Bldg 311A, Dual-fuel (natural gas with fuel oil #2 backup) 16.8 MMBtu/hr Superior Boiler, 2005
002AA	Bldg 1021, Dual-fuel (natural gas with fuel oil #2 backup) 42 MMBtu/hr Cleaver Brooks Boiler, 2010
002S	Bldg 1021, Dual-fuel (natural gas with fuel oil #2 backup) 42 MMBtu/hr Cleaver Brooks Boiler, 2010
002X	Bldg 2369, Dual-fuel (natural gas with fuel oil #2 backup) 23.25 MMBtu/hr Unilux Boiler, 2015
002Y	Bldg 2369, Dual-fuel (natural gas with fuel oil #2 backup) 23.25 MMBtu/hr Unilux Boiler, 2015

Standard for SO₂:

1. The permittee shall not combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. [§60.42c(d)]
2. Except as provided in §60.42c(h), compliance with the fuel oil sulfur limits of §60.42c shall be determined on a 30-day rolling average basis. [§60.42c(g)]
3. Compliance with the emission limits or fuel oil sulfur limits under §60.42c may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable. [§60.42c(h)]
4. The fuel oil sulfur limits under §60.42c apply at all times, including periods of startup, shutdown, and malfunction. [§60.42c(i)]

Compliance and Performance Test Methods and Procedures for SO₂:

1. If the permittee 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 permittee shall sample the oil in the fuel tank after each new shipment of oil is received, as described under §60.46c(d)(2). [§60.44c(g)]

2. For affected facilities where the permittee seeks to demonstrate compliance with the SO₂ 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. [§60.44c(h)]

Emission Monitoring for SO₂:

1. As an alternative to operating a CEMS at the inlet to the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) as required under §60.46c(a), the permittee may elect to determine the average SO₂ emission rate by sampling the fuel prior to combustion. Fuel sampling shall be conducted pursuant to either §60.46c(d)(1) or (d)(2). [§60.46c(d)]
 - a) 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 NSPS Appendix A. [§60.46c(d)(1)]
 - b) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The permittee shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results 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 permittee 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. [§60.46c(d)(2)]
2. The monitoring requirements of §60.46c(d) shall not apply to affected facilities subject to §60.42c(h) where the permittee seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under §60.48c(f), as applicable. [§60.46c(e)]

Reporting and Recordkeeping Requirements:

1. The permittee shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7. This notification shall include: [§60.48c(a)]
 - a) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility. [§60.48c(a)(1)]
 - b) 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. [§60.48c(a)(2)]
 - c) The annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired. [§60.48c(a)(3)]
 - d) Notification if an emerging technology will be used for controlling SO₂ emissions. The Director will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Director may require the permittee 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 Director. [§60.48c(a)(4)]
2. The permittee shall submit reports to the Director. [§60.48c(d)]
3. The permittee shall keep records and submit reports as required under §60.48c(d), including the following information, as applicable. [§60.48c(e)]
 - a) Calendar dates covered in the reporting period. [§60.48c(e)(1)]

- b) Each 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. [§60.48c(e)(2)]
- c) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under §60.48c(f)(1), (2), (3), or (4), as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. [§60.48c(e)(11)]
- 4. Fuel supplier certification shall include the following information: [§60.48c(f)]
 - a) For distillate oil: [§60.48c(f)(1)]
 - i) The name of the oil supplier; [§60.48c(f)(1)(i)]
 - ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and [§60.48c(f)(1)(ii)]
 - iii) The sulfur content or maximum sulfur content of the oil. [§60.48c(f)(1)(iii)]
- 5. Except as provided under §60.48c(g)(2) and (g)(3), the permittee shall record and maintain records of the amount of each fuel combusted during each operating day. [§60.48c(g)(1)]
- 6. As an alternative to meeting the requirements of §60.48c(g)(1), for an affected facility that combusts only natural gas or fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO₂ standard, the permittee may elect to record and maintain records of the amount of each fuel combusted during each calendar month. [§60.48c(g)(2)]
- 7. As an alternative to meeting the requirements of §60.48c(g)(1), where the only fuels combusted in any steam generating unit (including steam generating units not subject to NSPS Dc) 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 SO₂ standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity), the permittee 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. [§60.48c(g)(3)]
- 8. The reporting period for the reports required under NSPS Dc is each six-month period. All reports shall be submitted to the Director and shall be postmarked by the 30th day following the end of the reporting period. [§60.48c(j)]
- 9. The permittee shall maintain these records on-site for not less than five years and shall make them available to Missouri Department of Natural Resources' personnel upon request. [§70.6(a)(3)(ii)]
- 10. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 012		
10 CSR 10-6.070 New Source Performance Regulations		
40 CFR Part 60, Subpart I – Standards of Performance for Hot Mix Asphalt Facilities		
Emission Unit	Description	Control Equipment
051A	Aggregate Handling Bins, 184 tph	None
052B	Aggregate Handling Conveyor, 552 tph	None
053C	Vibrating Screen, 184 tph	None
055E	Plant Loadout, 200 tph	None
056F	Silo Loading, 200 tph	None
057G	Asphalt Heater, 2.2 MMBtu/hr Fuel Oil #2	None

Standard for PM:

1. On and after the date on which the performance test required to be conducted by §60.8 is completed, the permittee shall not discharge or cause the discharge into the atmosphere from any affected facility any gases which: [§60.92(a)]
 - a) Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf). [§60.92(a)(1)]
 - b) Exhibit 20 percent opacity, or greater. [§60.92(a)(2)]

Test Methods and Procedures:

1. In conducting the performance tests required in §60.8, the permittee shall use as reference methods and procedures the test methods in NSPS Appendix A or other methods and procedures as specified in §60.93, except as provided in §60.8(b). [§60.93(a)]
2. The permittee shall determine compliance with the particulate matter standards in §60.92 as follows: [§60.92(b)]
 - a) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf). [§60.92(b)(1)]
 - b) Method 9 and the procedures in §60.11 shall be used to determine opacity. [§60.92(b)(2)]

Reporting and Recordkeeping:

1. The permittee shall retain records of their most recent performance tests. [§70.6(a)(3)(ii)]
2. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request. [§70.6(a)(3)(ii)]
3. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 013		
10 CSR 10-6.070 New Source Performance Regulations		
40 CFR Part 60, Subpart I – Standards of Performance for Hot Mix Asphalt Facilities		
40 CFR Part 64 – Compliance Assurance Monitoring		
Emission Unit	Description	Control Equipment
054D	Drum Dryer, 50 MMBtu/hr Fuel Oil #2, 200 tph	Baghouse

Standard for PM:

1. On and after the date on which the performance test required to be conducted by §60.8 is completed, the permittee shall not discharge or cause the discharge into the atmosphere from any affected facility any gases which: [§60.92(a)]
 - a) Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf). [§60.92(a)(1)]
 - b) Exhibit 20 percent opacity, or greater. [§60.92(a)(2)]

Test Methods and Procedures:

1. In conducting the performance tests required in §60.8, the permittee shall use as reference methods and procedures the test methods in NSPS Appendix A or other methods and procedures as specified in §60.93, except as provided in §60.8(b). [§60.93(a)]
2. The permittee shall determine compliance with the particulate matter standards in §60.92 as follows: [§60.92(b)]

- a) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).
 [§60.92(b)(1)]
- b) Method 9 and the procedures in §60.11 shall be used to determine opacity. [§60.92(b)(2)]

Monitoring:

1. The permittee shall comply with the following compliance assurance monitoring:

Fort Leonard Wood - CAM Monitoring Approach for Asphalt Drum Dryer	
PM Compliance Indicator	
Indicator	Pressure Drop
Measurement Approach	The pressure drop across the baghouse shall be measured with a differential pressure gauge.
Indicator Range	An excursion is defined as a pressure drop greater than 5 in. H ₂ O. Excursions trigger an inspection, corrective action, and a reporting requirement. The permittee shall check the control device to ensure emissions are routing to the baghouse if emissions are less than 1 in. H ₂ O.
QIP Threshold	A QIP is required if more than five excursions occur during a six-month reporting period.
Performance Criteria	
Data Representativeness	Pressure taps shall be located at the baghouse inlet and outlet. The gauge shall have a minimum accuracy of ±0.25 in. H ₂ O.
Verification of Operational Status	N/A
QA/QC Practices and Criteria	The pressure gauge shall be calibrated once per calendar quarter. The pressure taps shall be checked for plugging once each operating day.
Monitoring Frequency	The pressure drop shall be monitored continuously while the drum dryer is in operation. The pressure drop shall be recorded manually once each operating day.
Data Collection Procedure	
Averaging Period	None
Reporting	The permittee shall submit a report detailing each excursion in conjunction with the Part 70 semi-annual report.

- 2. Proper maintenance. At all times, the permittee shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
 [§64.7(b)]
- 3. Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions units are operating. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [§64.7(c)]
- 4. Response to excursions or exceedances: [§64.7(d)]
 - a) Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air

pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

[§64.7(d)(1)]

- b) Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. [§64.7(d)(2)]
5. Documentation of need for improved monitoring. After approval of monitoring under 40 CFR Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Part 70 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [§64.7(e)]

Quality improvement plan (QIP):

1. The permittee shall develop and implement a QIP if the drum dryer has more than five excursions during the reporting period.
2. Elements of a QIP: [§64.8(b)]
 - a) The permittee shall maintain a written QIP, if required, and have it available for inspection. [§64.8(b)(1)]
 - b) The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate: [§64.8(b)(2)]
 - i) Improved preventive maintenance practices. [§64.8(b)(2)(i)]
 - ii) Process operation changes. [§64.8(b)(2)(ii)]
 - iii) Appropriate improvements to control methods. [§64.8(b)(2)(iii)]
 - iv) Other steps appropriate to correct control performance. [§64.8(b)(2)(iv)]
 - v) More frequent or improved monitoring (only in conjunction with one or more steps under §64.8(b)(2)(i) through (iv)). [§64.8(b)(2)(v)]
3. If a QIP is required, the permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined. [§64.8(c)]
4. Following implementation of a QIP, upon any subsequent determination pursuant to §64.7(d)(2) the Administrator or the permitting authority may require that the permittee make reasonable changes to the QIP if the QIP is found to have: [§64.8(d)]
 - a) Failed to address the cause of the control device performance problems; or [§64.8(d)(1)]

- b) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [§64.8(d)(2)]
- 5. Implementation of a QIP shall not excuse the permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. [§64.8(e)]

Reporting and Recordkeeping:

- 1. The permittee shall retain records of their most recent performance tests. [§70.6(a)(3)(ii)]
- 2. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request. [§70.6(a)(3)(ii)]
- 3. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 014			
10 CSR 10-6.070 New Source Performance Regulations			
40 CFR Part 60, Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines			
Emission Source	Description	Capacity	Model Year
048	(5) Caterpillar DPGDS Generators	1126 HP each	2008
	Caterpillar DPGDS Generator	1126 HP	2009
060J	Cummins Diesel Generator	1207 HP	2012

Applicability:

Stationary CI ICE may be eligible for exemption from the requirements of NSPS III 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 the permittee may be eligible to request an exemption for national security. [§60.4200(d)]

Emission Standards:

- 1. For 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder, the permittee shall comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable. [§60.4204(b)]
- 2. For non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder for which the permittee conducts performance tests in-use, the permittee shall meet the not-to-exceed (NTE) standards as indicated in §60.4212. [§60.4204(d)]
- 3. Modified or reconstructed non-emergency stationary CI ICE shall meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in §60.4204(b) and (d). [§60.4204(e)]
- 4. The permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine. [§60.4206]

Fuel Requirements:

1. For stationary CI ICE with a displacement of less than 30 liters per cylinder that use diesel fuel, the permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [§60.4207(b)]
2. Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in §60.4207. [§60.4207(e)]

Other Requirement:

For stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter shall be installed with a backpressure monitor that notifies the permittee when the high backpressure limit of the engine is approached. [§60.4209(b)]

Compliance Requirements:

1. The permittee shall do all of the following, except as permitted under §60.4211(g): [§60.4211(a)]
 - a) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; [§60.4211(a)(1)]
 - b) Change only those emission-related settings that are permitted by the manufacturer; and [§60.4211(a)(2)]
 - c) Meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply. [§60.4211(a)(3)]
2. For 2007 model year and later stationary CI internal combustion engine subject to the emission standards specified in §60.4204(b), the permittee shall comply by purchasing an engine certified to the emission standards in §60.4204(b), for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g). [§60.4211(c)]
3. For modified or reconstructed stationary CI internal combustion engine subject to the emission standards specified in §60.4204(e), the permittee shall demonstrate compliance according to one of the methods specified in §60.4211(e)(1) or (2). [§60.4211(e)]
 - a) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4204(e). [§60.4211(e)(1)]
 - b) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test shall be conducted within 60 days after the engine commences operation after the modification or reconstruction. [§60.4211(e)(2)]
4. If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows: [§60.4211(g)]
 - a) For stationary CI internal combustion engine greater than 500 HP, the permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the permittee changes emission-related settings in a way that is not

permitted by the manufacturer. The permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or three years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. [§60.4211(g)(3)]

Testing Requirements:

The permittee shall comply with the test methods and procedures specified in §60.4212 when conducting performance tests.

General Provisions:

The permittee shall comply with the applicable General Provisions in §§60.1 through 60.19 as specified by Table 8 to NSPS IIII. [§63.6665]

Recordkeeping:

If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the permittee shall keep records of any corrective action taken after the backpressure monitor has notified the permittee that the high backpressure limit of the engine is approached. [§60.4214(c)]

PERMIT CONDITION 015			
10 CSR 10-6.070 New Source Performance Regulations			
40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines			
Emission Source	Description	Capacity	Construction Date
GEN412	Bldg 5410 Lift Station Key 404 Gate 13260 CAT Generator	45 HP	2006
GEN531	Kansas Ave Past Bldg 6104 Kohler Generator	200 HP	2009
GEN708	Nutter Field House CAT Generator	480 HP	2010
GEN821	Bldg 1601E Water Treatment MTU Generator	1193 HP	2014
GEN3LS	Mancen Bldg 3200 Phone Generator	107 HP	2012
GEN908	Davidson Fitness Center CAT Generator	1620 HP	2011
GEN910	Sewer Plant Outside MTU Generator	1717 HP	2010
GENK65	Bldg 3200 Mancen Kohler Generator	1073 HP	2013

Applicability:

Stationary CI ICE may be eligible for exemption from the requirements of NSPS IIII 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 the permittee, may be eligible to request an exemption for national security. [§60.4200(d)]

Emission Standards:

1. For pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines, the permittee shall comply with the emission standards in Table 1 to NSPS IIII. [§60.4205(a)]
2. For 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, the permittee shall 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. [§60.4205(b)]

3. For emergency stationary CI ICE with a displacement of less than 30 liters per cylinder for which the permittee conducts performance tests in-use, the permittee shall meet the NTE standards as indicated in §60.4212. [§60.4205(e)]
4. For modified or reconstructed emergency stationary CI ICE, the permittee shall meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in §60.4205(a), (b), and (e). [§60.4205(f)]
5. The permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in §60.4205 over the entire life of the engine. [§60.4206]

Table 1 to NSPS IIII—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder

Maximum Engine Power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)		
	NMHC + NO _x	CO	PM
19≤KW<37 (25≤HP<50)	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)

Fuel Requirements:

1. For stationary CI ICE with a displacement of less than 30 liters per cylinder that use diesel fuel, the permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [§60.4207(b)]
2. Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in §60.4207. [§60.4207(e)]

Other Requirements:

For emergency stationary CI internal combustion engine that do not meet the standards applicable to non-emergency engines, the permittee shall install a non-resettable hour meter prior to startup of the engine. [§60.4209(a)]

Compliance Requirements:

1. The permittee shall do all of the following, except as permitted under §60.4211(g): [§60.4211(a)]
 - a) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; [§60.4211(a)(1)]
 - b) Change only those emission-related settings that are permitted by the manufacturer; and [§60.4211(a)(2)]
 - c) Meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply. [§60.4211(a)(3)]
2. For pre-2007 model year stationary CI internal combustion engine subject to the emission standards specified in §60.4205(a), the permittee shall demonstrate compliance according to one of the methods specified in §60.4211(b)(1) through (5). [§60.4211(b)]
 - a) 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 shall be installed and configured according to the manufacturer's specifications. [§60.4211(b)(1)]
 - b) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test shall have been conducted using the same methods specified in NSPS IIII and these methods shall have been followed correctly. [§60.4211(b)(2)]

- c) Keeping records of engine manufacturer data indicating compliance with the standards. [§60.4211(b)(3)]
- d) Keeping records of control device vendor data indicating compliance with the standards. [§60.4211(b)(4)]
- e) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable. [§60.4211(b)(5)]
- 3. For 2007 model year and later stationary CI internal combustion engine subject to the emission standards specified in §60.4205(b), the permittee shall comply by purchasing an engine certified to the emission standards in §60.4205(b), as applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g). [§60.4211(c)]
- 4. For modified or reconstructed stationary CI internal combustion engine subject to the emission standards specified in §60.4205(f), the permittee shall demonstrate compliance according to one of the methods specified in §60.4211(e)(1) or (2). [§60.4211(e)]
 - a) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4205(f). [§60.4211(e)(1)]
 - b) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test shall be conducted within 60 days after the engine commences operation after the modification or reconstruction. [§60.4211(e)(2)]
- 5. The permittee shall operate the emergency stationary ICE according to the requirements in §60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under NSPS IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §60.4211(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in §60.4211(f)(1) through (3), the engine will not be considered an emergency engine under NSPS IIII and shall meet all requirements for non-emergency engines. [§60.4211(f)]
 - a) There is no time limit on the use of emergency stationary ICE in emergency situations. [§60.4211(f)(1)]
 - b) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in §60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. [§60.4211(f)(2)]
 - i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [§60.4211(f)(2)(i)]
 - c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §60.4211(f)(2). Except as provided in §60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand

response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4211(f)(3)]

i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

[§60.4211(f)(3)(i)]

(1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [§60.4211(f)(3)(i)(A)]

(2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§60.4211(f)(3)(i)(B)]

(3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§60.4211(f)(3)(i)(C)]

(4) The power is provided only to the facility itself or to support the local transmission and distribution system. [§60.4211(f)(3)(i)(D)]

(5) The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee. [§60.4211(f)(3)(i)(E)]

6. If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or if the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows: [§60.4211(g)]

a) For stationary CI internal combustion engine with maximum engine power less than 100 HP, the permittee shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the permittee does not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or the permittee changes the emission-related settings in a way that is not permitted by the manufacturer, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of such action. [§60.4211(g)(1)]

b) For stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, the permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. [§60.4211(g)(2)]

c) For stationary CI internal combustion engine greater than 500 HP, the permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to

demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. The permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or three years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. [§60.4211(g)(3)]

Testing Requirements:

The permittee shall comply with the test methods and procedures specified in §60.4212 when conducting performance tests.

General Provisions:

The permittee shall comply with the applicable General Provisions in §§60.1 through 60.19 as specified by Table 8 to NSPS III. [§63.6665]

Notifications, Reporting, and Recordkeeping:

1. For emergency stationary CI ICE, the permittee is not required to submit an initial notification. Starting with the model years in Table 5 to NSPS III, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [§60.4214(b)]
2. If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the permittee shall keep records of any corrective action taken after the backpressure monitor has notified the permittee that the high backpressure limit of the engine is approached. [§60.4214(c)]

Table 5 to NSPS III—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

PERMIT CONDITION 016			
10 CSR 10-6.070 New Source Performance Regulations			
40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines			
Emission Source	Description	Capacity	Construction Date
GEN215	Front Entrance TA 236/FLW P Gate 13108 Generac Generator	50 HP	2011
GEN389	Bldg 5441A Lift Station General Generator	50 HP	2010
GEN551	Communication Shelter 2114 Cummins Generator	97 HP	2009
GEN552	Communication Shelter 12629 Cummins Generator	97 HP	2009
GEN653	Past CEHC Left Side Before Smoke Range Generac Generator	60 HP	2010
GEN937	Rear Entrance TA 236 Bldg 3120 Kohler Generator	40.5 HP	2011

Emission Standards:

1. The permittee shall comply with the emission standards in Table 1 to NSPS JJJJ for their emergency stationary SI ICE. For stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to NSPS JJJJ applicable to emergency engines with a maximum engine power greater than or equal to 130 HP, may optionally choose to meet those standards. [§60.4233(d)]
2. The permittee shall operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine. [§60.4234]
3. For an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, the permittee shall install a non-resettable hour meter upon startup of the emergency engine. [§60.4237(c)]

Table 1 to NSPS JJJJ—NO_x, CO, and VOC Emission Standards for Stationary Emergency Engines >25 HP

Engine Type	Maximum Engine Power	Manufacture Date	Emission Standards ³					
			g/HP-hr			ppmvd at 15% O ₂		
			NO _x	CO	VOC ⁴	NO _x	CO	VOC ²
Emergency	25 < HP < 130	1/1/2009 or later	10 ⁵	387	N/A	N/A	N/A	N/A
	HP ≥ 130		2.0	4.0	1.0	160	540	86

Compliance Requirements:

1. The permittee shall demonstrate compliance according to one of the methods specified in §60.4243(b)(1) and (2). [§60.4243(b)]
 - a) Purchasing an engine certified according to procedures specified in NSPS JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in §60.4243(a). [§60.4243(b)(1)]
 - b) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) and according to the requirements specified in §60.4244, as applicable, and according to §60.4243(b)(2)(i). [§60.4243(b)(2)]
 - i) The permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance. [§60.4243(b)(2)(i)]
2. The permittee shall operate the emergency stationary ICE according to the requirements in §60.4243(d)(1) through (3). In order for the engine to be considered an emergency stationary ICE under NSPS JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §60.4243(d)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in §60.4243(d)(1) through (3), the engine will not be considered an

³ For stationary non-certified SI engines, the permittee may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

⁴ For purposes of NSPS JJJJ, when calculating emissions of VOC, emissions of formaldehyde should not be included.

⁵ The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_x + HC.

emergency engine under NSPS JJJJ and shall meet all requirements for non-emergency engines. [§60.4243(d)]

- a) There is no time limit on the use of emergency stationary ICE in emergency situations. [§60.4243(d)(1)]
- b) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in §60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. [§60.4243(d)(2)]
 - i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [§60.4243(d)(2)(i)]
- c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §60.4243(d)(2). Except as provided in §60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4243(d)(3)]
 - i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§60.4243(d)(3)(i)]
 - (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [§60.4243(d)(3)(i)(A)]
 - (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§60.4243(d)(3)(i)(B)]
 - (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§60.4243(d)(3)(i)(C)]
 - (4) The power is provided only to the facility itself or to support the local transmission and distribution system. [§60.4243(d)(3)(i)(D)]
 - (5) The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee. [§60.4243(d)(3)(i)(E)]
3. The permittee may operate their stationary SI natural gas fired engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but shall keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the permittee is required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233. [§60.4243(e)]

4. For a non-certified engine or if the permittee does not operate and maintain a certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, the permittee required to perform initial performance testing as indicated in §60.4243, but the permittee is not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a). [§60.4243(f)]
5. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller shall be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [§60.4243(g)]

Testing Requirements:

The permittee shall comply with the test methods and procedures specified in §60.4244 when conducting performance tests.

General Provisions:

The permittee shall comply with the applicable General Provisions in §§60.1 through 60.19 as specified by Table 3 to NSPS JJJJ. [§60.4246]

Notification, Reports, and Records:

1. The permittee shall keep records of the following information: [§60.4245(a)]
 - a) All notifications submitted to comply with NSPS JJJJ and all documentation supporting any notification. [§60.4245(a)(1)]
 - b) Maintenance conducted on the engine. [§60.4245(a)(2)]
 - c) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable. [§60.4245(a)(3)]
 - d) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards. [§60.4245(a)(4)]
2. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall 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. [§60.4245(b)]
3. For stationary SI ICE that are subject to performance testing, the permittee shall submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. [§60.4245(d)]

PERMIT CONDITION 017			
10 CSR 10-6.070 New Source Performance Regulations			
40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines			
Emission Source	Description	Capacity	Construction Date
GEN127	Bldg 11400 Key CH 751 Cummins Generator	803 HP	5/30/2012
GEN726	New Communication Center Caterpillar Generator	2106 HP	2012
GEN727	New Communication Center Caterpillar Generator	2106 HP	2012

Emission Standards:

1. The permittee shall comply with the emission standards in Table 1 to NSPS JJJJ for their emergency stationary SI ICE. [§60.4233(d)]
2. The permittee shall operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine. [§60.4234]
3. For an emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, and does not meet the standards applicable to non-emergency engines, the permittee install a non-resettable hour meter. [§60.4237(a)]

Table 1 to NSPS JJJJ—NO_x, CO, and VOC Emission Standards for Stationary Emergency Engines >25 HP

Engine Type	Maximum Engine Power	Manufacture Date	Emission Standards ⁶					
			g/HP-hr			ppmvd at 15% O ₂		
			NO _x	CO	VOC ⁷	NO _x	CO	VOC ⁵
Emergency	HP ≥ 130	1/1/2009 or later	2.0	4.0	1.0	160	540	86

Compliance Requirements:

1. The permittee shall demonstrate compliance according to one of the methods specified in §60.4243(b)(1) and (2). [§60.4243(b)]
 - a) Purchasing an engine certified according to procedures specified in NSPS JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in §60.4243(a). [§60.4243(b)(1)]
 - b) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) and according to the requirements specified in §60.4244, as applicable, and according to §60.4243(b)(2)(i). [§60.4243(b)(2)]
 - i) The permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or three years, whichever comes first, thereafter to demonstrate compliance. [§60.4243(b)(2)(ii)]
2. The permittee shall operate the emergency stationary ICE according to the requirements in §60.4243(d)(1) through (3). In order for the engine to be considered an emergency stationary ICE under NSPS JJJJ, any operation other than emergency operation, maintenance and testing,

⁶ For stationary non-certified SI engines, the permittee may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

⁷ For purposes of NSPS JJJJ, when calculating emissions of VOC, emissions of formaldehyde should not be included.

emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §60.4243(d)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in §60.4243(d)(1) through (3), the engine will not be considered an emergency engine under NSPS JJJJ and shall meet all requirements for non-emergency engines. [§60.4243(d)]

- a) There is no time limit on the use of emergency stationary ICE in emergency situations. [§60.4243(d)(1)]
 - b) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in §60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. [§60.4243(d)(2)]
 - i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [§60.4243(d)(2)(i)]
 - c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §60.4243(d)(2). Except as provided in §60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4243(d)(3)]
 - i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§60.4243(d)(3)(i)]
 - (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [§60.4243(d)(3)(i)(A)]
 - (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§60.4243(d)(3)(i)(B)]
 - (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§60.4243(d)(3)(i)(C)]
 - (4) The power is provided only to the facility itself or to support the local transmission and distribution system. [§60.4243(d)(3)(i)(D)]
 - (5) The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee. [§60.4243(d)(3)(i)(E)]
3. The permittee may operate their stationary SI natural gas fired engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but shall keep records of such use. If propane is used for more than 100 hours per year in an engine that is not

- certified to the emission standards when using propane, the permittee is required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233. [§60.4243(e)]
4. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller shall be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [§60.4243(g)]

Testing Requirements:

The permittee shall comply with the test methods and procedures specified in §60.4244 when conducting performance tests.

General Provisions

The permittee shall comply with the applicable General Provisions in §§60.1 through 60.19 as specified by Table 3 to NSPS JJJJ. [§60.4246]

Notification, Reports, and Records:

1. The permittee shall keep records of the following information: [§60.4245(a)]
 - a) All notifications submitted to comply with NSPS JJJJ and all documentation supporting any notification. [§60.4245(a)(1)]
 - b) Maintenance conducted on the engine. [§60.4245(a)(2)]
 - c) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable. [§60.4245(a)(3)]
 - d) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards. [§60.4245(a)(4)]
2. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall 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. [§60.4245(b)]
3. For stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231, the permittee shall submit an initial notification as required in §60.7(a)(1). The notification shall include the following information: [§60.4245(c)]
 - a) Name and address of the owner or operator; [§60.4245(c)(1)]
 - b) The address of the affected source; [§60.4245(c)(2)]
 - c) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; [§60.4245(c)(3)]
 - d) Emission control equipment; and [§60.4245(c)(4)]
 - e) Fuel used. [§60.4245(c)(5)]
4. For stationary SI ICE that are subject to performance testing, the permittee shall submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. [§60.4245(d)]

PERMIT CONDITION 018			
10 CSR 10-6.070 New Source Performance Regulations			
40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines			
Emission Source	Description	Capacity	Construction Date
GEN603	Communication Shelter 1018A by MP Station Bldg 1000 Kohler Generator	201 HP	2010
GEN335	11415 Big Piney Road Lift Station MTU Generator	134 HP	2014

Emission Standards:

1. The permittee shall comply with the emission standards in Table 1 to NSPS JJJJ for their emergency stationary SI ICE. [§60.4233(d)]
2. The permittee shall operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine. [§60.4234]

Table 1 to NSPS JJJJ—NO_x, CO, and VOC Emission Standards for Stationary Emergency Engines >25 HP

Engine Type	Maximum Engine Power	Manufacture Date	Emission Standards ⁸					
			g/HP-hr			ppmvd at 15% O ₂		
			NO _x	CO	VOC ⁹	NO _x	CO	VOC ⁵
Emergency	HP ≥ 130	1/1/2009 or later	2.0	4.0	1.0	160	540	86

Compliance Requirements:

1. The permittee shall demonstrate compliance according to one of the methods specified in §60.4243(b)(1) and (2). [§60.4243(b)]
 - a) Purchasing an engine certified according to procedures specified in NSPS JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in §60.4243(a). [§60.4243(b)(1)]
 - b) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) and according to the requirements specified in §60.4244, as applicable, and according to §60.4243(b)(2)(i). [§60.4243(b)(2)]
 - i) The permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance. [§60.4243(b)(2)(i)]
2. The permittee shall operate the emergency stationary ICE according to the requirements in §60.4243(d)(1) through (3). In order for the engine to be considered an emergency stationary ICE under NSPS JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §60.4243(d)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in §60.4243(d)(1) through (3), the engine will not be considered an

⁸ For stationary non-certified SI engines, the permittee may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

⁹ For purposes of NSPS JJJJ, when calculating emissions of VOC, emissions of formaldehyde should not be included.

emergency engine under NSPS JJJJ and shall meet all requirements for non-emergency engines. [§60.4243(d)]

- a) There is no time limit on the use of emergency stationary ICE in emergency situations. [§60.4243(d)(1)]
 - b) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in §60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. [§60.4243(d)(2)]
 - i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [§60.4243(d)(2)(i)]
 - c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §60.4243(d)(2). Except as provided in §60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4243(d)(3)]
 - i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§60.4243(d)(3)(i)]
 - (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [§60.4243(d)(3)(i)(A)]
 - (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§60.4243(d)(3)(i)(B)]
 - (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§60.4243(d)(3)(i)(C)]
 - (4) The power is provided only to the facility itself or to support the local transmission and distribution system. [§60.4243(d)(3)(i)(D)]
 - (5) The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee. [§60.4243(d)(3)(i)(E)]
3. The permittee may operate their stationary SI natural gas fired engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but shall keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the permittee is required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233. [§60.4243(e)]

4. For a non-certified engine or if the permittee does not operate and maintain a certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, the permittee required to perform initial performance testing as indicated in §60.4243, but the permittee is not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a). [§60.4243(f)]
5. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller shall be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [§60.4243(g)]

Testing Requirements:

The permittee shall comply with the test methods and procedures specified in §60.4244 when conducting performance tests.

General Provisions

The permittee shall comply with the applicable General Provisions in §§60.1 through 60.19 as specified by Table 3 to NSPS JJJJ. [§60.4246]

Notification, Reports, and Records:

1. The permittee shall keep records of the following information: [§60.4245(a)]
 - a) All notifications submitted to comply with NSPS JJJJ and all documentation supporting any notification. [§60.4245(a)(1)]
 - b) Maintenance conducted on the engine. [§60.4245(a)(2)]
 - c) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable. [§60.4245(a)(3)]
 - d) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards. [§60.4245(a)(4)]
2. For stationary SI ICE that are subject to performance testing, the permittee shall submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. [§60.4245(d)]

PERMIT CONDITION 019				
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines				
Emission Source	Description	Capacity	Construction Date	Engine Type
GEN141	Bldg 10252 Water Intake Caterpillar Engine	262 HP	1971	CI
GEN962	Airport Main Gate Code 21345 Kohler Generator 962	567 HP	2003	CI
GEN580	Bldg 181 Sewer Plant Caterpillar Generator 580	645 HP	1976	CI
GEN775	Bldg 3203 Mancen Detroit Generator 775	972 HP	1998	CI
GEN087	Bldg 1000 MP Command Key CH Cummins Generator	56 HP	2004	CI
GEN1222	Bldg 979 MP School Cummins Generator	87 HP	1998	CI
GEN139	Fire Station 1 Cummins Generator	134 HP	2000	CI
GEN173	Bldg 100 Front Gate Caterpillar Generator	449 HP	2004	CI
GEN222	Bldg 1000 MP Station Kohler Generator	20 HP	1984	CI
GEN227	Bldg 941 Basic Training Key Maintenance 285 Kohler Generator	450 HP	2003	CI
GEN233	East Gate Key CH 751 Kohler Generator 233	120 HP	2011	CI
GEN234	West Gate Kohler Generator 234	240 HP	2011	CI
GEN235	South Gate Key CH 751 Kohler Generator 235	107 HP	2011	CI
GEN255	Bldg 311 3 Hospital Detroit Generator 255	500 HP	1983	CI
GEN290	Range Control (Radio Tower) Key 03165 Bldg X27 15288 Frontage Rd Cummins Generator 290	40 HP	2004	CI
GEN317	Bldg 404 Phone Center Kohler Generator 317	370 HP	1986	CI
GEN402	Bldg 5245 CMTF General Generator 402	60 HP	1998	CI
GEN417	Bldg 890 Chem School Alabama Ave Onan Generator 417	60 HP	1998	CI
GEN434	Bldg 311 Hospital Phone Kohler Generator 434	100 HP	1989	CI
GEN601	Bldg 311 2 Hospital Detroit Generator 601	450 HP	1983	CI
GEN602	Bldg 311 1 Hospital Detroit Generator 602	450 HP	1983	CI
GEN929	Bldg Repeater Hill Cummins Generator 929	40 HP	2004	CI
GENA76	Bldg 2369 Boiler Plant Detroit Generator A76	486 HP	1978	CI
GENJ68	Bldg 1021 Boiler Plant 13590 Cassion Dr. Detroit Generator J68	486 HP	1978	CI
GEN517	Bldg 485 Commissary Ford Generator 517	160 HP	1989	SI
CDTF1	Chemical Defense Training Facility Katolight/D600FRX4 Generator	947 HP	1998	CI
CDTF2	Chemical Defense Training Facility Kohler 300ROZD Generator	450 HP	1997	CI

Applicability:

Stationary RICE used for national security purposes may be eligible to request an exemption from the requirements of MACT ZZZZ as described in 40 CFR Part 1068, Subpart C. [§63.6585(e)]

Operating Limitations:

The permittee shall comply with the requirements in Table 2d to MACT ZZZZ, as applicable. [§63.6603(a)]

Table 2d to MACT ZZZZ—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

For each...	The permittee shall meet the following requirement, except during periods of startup...
4. Emergency stationary CI RICE. ¹⁰	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ¹¹
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
5. Emergency stationary SI RICE. ¹	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ² ;
	b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Fuel Requirements:

For existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates for the purpose specified in §63.6640(f)(4)(ii), the permittee shall use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. [§63.6604(b)]

General Compliance Requirements:

1. The permittee shall be in compliance with the operating limitations, and other requirements in MACT ZZZZ that apply at all times. [§63.6605(a)]
2. At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee 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 Director 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. [§63.6605(b)]

Initial Compliance Requirements:

1. The permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance

¹⁰ If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of MACT ZZZZ, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. The permittee shall report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

¹¹ Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of MACT ZZZZ.

- plan which shall 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 [§63.6625(e)]
2. The permittee shall install a non-resettable hour meter if one is not already installed. [§63.6625(f)]
 3. CI Engines: The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2d to MACT ZZZZ. The oil analysis shall be performed at the same frequency specified for changing the oil in Table 2d to MACT ZZZZ. The analysis program shall 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 permittee is not required to change the oil. If any of the limits are exceeded, the permittee shall change the oil within two business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within two business days or before commencing operation, whichever is later. The permittee shall 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 shall be part of the maintenance plan for the engine. [§63.6625(i)]
 4. SI Engines: The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2d to MACT ZZZZ. The oil analysis shall be performed at the same frequency specified for changing the oil in Table 2d to MACT ZZZZ. The analysis program shall at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee shall change the oil within two business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within two business days or before commencing operation, whichever is later. The permittee shall 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 shall be part of the maintenance plan for the engine. [§63.6625(j)]

Continuous Compliance Requirements:

1. The permittee shall demonstrate continuous compliance with each operating limitation, and other requirements in Table 2d to MACT ZZZZ that apply according to methods specified in Table 6 to MACT ZZZZ. [§63.6640(a)]
2. The permittee shall also report each instance in which the permittee did not meet the requirements in Table 8 to MACT ZZZZ that apply. [§63.6640(e)]
3. The permittee shall operate the emergency stationary RICE according to the requirements in §63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under MACT ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §63.6640(f)(1) through (4), is prohibited. If the permittee does not operate the engine according to the requirements in §63.6640(f)(1) through (4), the engine will not be considered an

emergency engine under MACT ZZZZ and shall meet all requirements for non-emergency engines. [§63.6640(f)]

- a) There is no time limit on the use of emergency stationary RICE in emergency situations. [§63.6640(f)(1)]
- b) The permittee may operate the emergency stationary RICE for any combination of the purposes specified in §63.6640(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §63.6640(f)(4) counts as part of the 100 hours per calendar year allowed by this paragraph. [§63.6640(f)(2)]
 - i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [§63.6640(f)(2)(i)]
- c) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §63.6640(f)(2). Except as provided in §63.6640(f)(4)(ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§63.6640(f)(4)]
 - i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§63.6640(f)(4)(ii)]
 - (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator. [§63.6640(f)(4)(ii)(A)]
 - (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§63.6640(f)(4)(ii)(B)]
 - (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§63.6640(f)(4)(ii)(C)]
 - (4) The power is provided only to the facility itself or to support the local transmission and distribution system. [§63.6640(f)(4)(ii)(D)]
 - (5) The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee. [§63.6640(f)(4)(ii)(E)]

Table 6 to MACT ZZZZ—Continuous Compliance With Emission Limitations, and Other Requirements

For each...	Complying with the requirement to...	The permittee shall demonstrate continuous compliance by...
9. Existing emergency stationary RICE located at an area source of HAP	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 a maintenance plan which shall 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.

General Provisions:

The permittee shall comply with the applicable General Provisions in §§63.1 through 63.15 as specified by Table 8 to MACT ZZZZ. [§63.6665]

Recordkeeping and Reporting:

1. The permittee shall submit each report in Table 7 of MACT ZZZZ that applies. [§63.6650(a)]
2. For emergency stationary RICE with a site rating of more than 100 brake HP that operates for the purpose specified in §63.6640(f)(4)(ii), the permittee shall submit an annual report according to the following requirements: [§63.6650(h)]
 - a) The report shall contain the following information: [§63.6650(h)(1)]
 - i) Company name and address where the engine is located. [§63.6650(h)(1)(i)]
 - ii) Date of the report and beginning and ending dates of the reporting period. [§63.6650(h)(1)(ii)]
 - iii) Engine site rating and model year. [§63.6650(h)(1)(iii)]
 - iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. [§63.6650(h)(1)(iv)]
 - v) Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine. [§63.6650(h)(1)(vii)]
 - vi) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period. [§63.6650(h)(1)(viii)]
 - vii) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken. [§63.6650(h)(1)(ix)]
 - b) The first annual report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year shall be submitted no later than March 31 of the following calendar year. [§63.6650(h)(2)]
 - c) The annual report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to MACT ZZZZ is not available in CEDRI at the time that the report is due, the written report shall be submitted to the Administrator at the appropriate address listed in §63.13. [§63.6650(h)(3)]
3. The permittee shall keep the following records: [§63.6655(a)]

- a) A copy of each report that the permittee submitted to comply with MACT ZZZZ. [§63.6655(a)(1)]
- b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [§63.6655(a)(2)]
- c) Records of all required maintenance performed on the air pollution control equipment. [§63.6655(a)(4)]
- d) 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 equipment to its normal or usual manner of operation. [§63.6655(a)(5)]
4. The permittee shall keep the records required in Table 6 of MACT ZZZZ to show continuous compliance with each emission or operating limitation that applies. [§63.6655(d)]
5. The permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the maintenance plan. [§63.6655(e)]
6. The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(4)(ii), the permittee shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [§63.6655(f)]
7. Records shall be in a form suitable and readily available for expeditious review according to §63.10(b)(1). [§63.6660(a)]
8. As specified in §63.10(b)(1), the permittee shall keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.6660(b)]
9. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). [§63.6660(c)]

PERMIT CONDITION 020				
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines				
Emission Source	Description	Capacity	Construction Date	Engine Type
Q631P	Cedar Rapids Cummins Generator	240 HP	1995	CI
Q631Q	Cedar Rapids Cummins Generator	240 HP	1995	CI
Q631R	Cedar Rapids Cummins Generator	240 HP	1995	CI
EU0014	Cedar Rapids Cummins Primary Crusher Engine	215 HP	1996	CI
EU0016	Cedar Rapids Cummins Tertiary Crusher Engine	215 HP	1996	CI
EU0017	Cedar Rapids Cummins Water Pump Engine	100 HP	1996	CI

Applicability:

For stationary RICE used for national security purposes, the permittee may be eligible to request an exemption from the requirements of MACT ZZZZ as described in 40 CFR Part 1068, Subpart C. [§63.6585(e)]

Operating Limitations:

The permittee shall comply with the requirements in Table 2d to MACT ZZZZ, as applicable.
 [§63.6603(a)]

Table 2d to MACT ZZZZ—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

For each...	The permittee shall meet the following requirement, except during periods of startup...
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; ¹²
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

General Compliance Requirements:

1. The permittee shall be in compliance with the operating limitations, and other requirements in MACT ZZZZ that apply at all times. [§63.6605(a)]
2. At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee 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 Director 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. [§63.6605(b)]

Initial Compliance Requirements:

1. The permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall 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. [§63.6625(e)]
2. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2d to MACT ZZZZ. The oil analysis shall be performed at the same frequency specified for changing the oil in Table 2d to MACT ZZZZ. The analysis program shall 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 permittee is not required to change the oil. If any of the limits are exceeded, the permittee shall change the oil within two business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within two business days or before commencing operation, whichever is later. The permittee shall keep records of the parameters

¹² Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of MACT ZZZZ.

that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine. [§63.6625(i)]

3. The permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645. [§63.6630(c)]

Continuous Compliance Requirements:

1. The permittee shall demonstrate continuous compliance with each operating limitation, and other requirements in Table 2d to MACT ZZZZ that apply according to methods specified in Table 6 to MACT ZZZZ. [§63.6640(a)]
2. The permittee shall also report each instance in which the permittee did not meet the requirements in Table 8 to MACT ZZZZ that apply. [§63.6640(e)]

Table 6 to MACT ZZZZ—Continuous Compliance With Emission Limitations, and Other Requirements

For each...	Complying with the requirement to...	The permittee shall demonstrate continuous compliance by...
9. Existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP	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 a maintenance plan which shall 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.

General Provisions:

The permittee shall comply with the applicable General Provisions in §§63.1 through 63.15 as specified by Table 8 to MACT ZZZZ. [§63.6665]

Recordkeeping:

1. The permittee shall keep the following records: [§63.6655(a)]
 - a) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [§63.6655(a)(2)]
 - b) Records of all required maintenance performed on the air pollution control and monitoring equipment. [§63.6655(a)(4)]
 - c) 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. [§63.6655(a)(5)]
2. The permittee shall keep the records required in Table 6 of MACT ZZZZ to show continuous compliance with each operating limitation that applies. [§63.6655(d)]
3. The permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the maintenance plan. [§63.6655(e)]
4. Records shall be in a form suitable and readily available for expeditious review according to §63.10(b)(1). [§63.6660(a)]
5. As specified in §63.10(b)(1), the permittee shall keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.6660(b)]

6. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). [§63.6660(c)]

PERMIT CONDITION 021				
10 CSR 10-6.070 New Source Performance Regulations				
40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines				
Emission Source	Description	Capacity	Construction Date	Engine Type
046	General Motors EMD Generator	2012 HP each	1992	CI
	(3) General Motors EMD Generator	2012 HP each	1996	CI
047	(2) Fermont Generators	1006 HP each	1984	CI
	(4) Fermont Generators	1006 HP each	1986	CI
048	Caterpillar DPGDS	1126 HP each	2002	CI

Applicability:

For stationary RICE used for national security purposes, the permittee may be eligible to request an exemption from the requirements of MACT ZZZZ as described in 40 CFR Part 1068, Subpart C. [§63.6585(e)]

Emission and Operating Limitations:

1. Compliance with the numerical emission limitations established in MACT ZZZZ is based on the results of testing the average of three one-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to MACT ZZZZ. [§63.6603]
 - a) For existing stationary RICE located at an area source of HAP emissions, the permittee shall comply with the requirements in Table 2d to MACT ZZZZ and the operating limitations in Table 2b to MACT ZZZZ that apply. [§63.6603(a)]
 - b) For existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that are certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that are subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, the permittee may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of MACT ZZZZ instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in §63.6625(g). The permittee shall comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. The permittee shall also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. [§63.6603(d)]
 - c) For existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, the permittee may comply with the requirements under MACT ZZZZ by meeting the requirements for Tier 3 engines (Tier 2 for

engines above 560 kW) in 40 CFR Part 60, Subpart IIII instead of the emission limitations and other requirements that would otherwise apply under MACT ZZZZ for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions. [§63.6603(e)]

Table 2d to MACT ZZZZ—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

For each...	The permittee shall meet the following requirement, except during periods of startup...	During periods of startup the permittee shall...
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O ₂ ; or b. Reduce CO emissions by 70 percent or more.	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.

Table 2b to MACT ZZZZ—Operating Limitations for Existing CI Stationary RICE >500 HP

For each...	The permittee shall meet the following operational limitation, except during periods of startup...
2. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of the 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. ¹³
3. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	Comply with any operating limitations approved by the Director.

Fuel Requirements:

For existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, the permittee shall use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. [§63.6604(a)]

General Compliance Requirements:

1. The permittee shall be in compliance with the emission limitations, operating limitations, and other requirements in MACT ZZZZ that apply at all times. [§63.6605(a)]
2. At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance

¹³ Sources may petition the Director pursuant to the requirements of §63.8(f) for a different temperature range.

procedures are being used will be based on information available to the Director 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. [§63.6605(b)]

Testing and Initial Compliance Requirements:

1. The permittee shall conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to MACT ZZZZ that apply within 180 days after the compliance date that is specified for the stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2). [§63.6612(a)]
2. The permittee 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 §63.6612(b)(1) through (4). [§63.6612(b)]
 - a) The test must have been conducted using the same methods specified in MACT ZZZZ, and these methods must have been followed correctly. [§63.6612(b)(1)]
 - b) The test must not be older than two years. [§63.6612(b)(2)]
 - c) The test must be reviewed and accepted by the Director. [§63.6612(b)(3)]
 - d) Either no process or equipment changes must have been made since the test was performed, or the permittee must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes. [§63.6612(b)(4)]
3. The permittee shall conduct subsequent performance tests as specified in Table 3 of MACT ZZZZ. [§63.6615]
4. The permittee shall comply with the test methods and procedures in §63.6620 when conducting performance tests.

Table 4 to MACT ZZZZ—Requirements for Performance Tests

For each...	Complying with the requirement to...	The permittee shall...	Using...	According to the following requirements...
1. CI stationary RICE	a. reduce CO emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For CO and O ₂ measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at three traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of §11.1.1 of Method 1 of NSPS Appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to §8.1.2 of Method 7E of NSPS Appendix A-4.
		ii. Measure the O ₂ at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of NSPS Appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) ¹⁴ (heated probe not necessary)	(b) Measurements to determine O ₂ must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device	(1) ASTM D6522-00 (Reapproved 2005) ¹² (heated probe not necessary) or Method 10 of NSPS Appendix A-4	(c) The CO concentration must be at 15 percent O ₂ , dry basis.

¹⁴ The permittee may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). The permittee 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.

For each...	Complying with the requirement to...	The permittee shall...	Using...	According to the following requirements...
3. Stationary RICE	a. limit the concentration of CO in the stationary RICE exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and		(a) For CO, O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at three traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of §11.1.1 of Method 1 of NSPS Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to §8.1.2 of Method 7E of NSPS Appendix 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 NSPS Appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) ¹² (heated probe not necessary)	(a) Measurements to determine O ₂ concentration must be made at the same time and location as the measurements for CO concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of NSPS Appendix A-3, or Method 320 of MACT Appendix A, or ASTM D 6348-03 ¹⁵	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for CO concentration.
		v. measure CO at the exhaust of the stationary RICE	(1) Method 10 of NSPS Appendix A-4, ASTM Method D6522-00 (2005) ¹² , Method 320 of MACT Appendix A, or ASTM D6348-03 ¹³	(a) CO concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three one-hour or longer runs.

¹⁵ The permittee 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.

Table 5 to MACT ZZZZ—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements

For each...	Complying with the requirement to...	The permittee has demonstrated initial compliance if...
1. Existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	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 ii. The permittee has installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. The permittee has recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. The permittee has installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. The permittee has recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
3. Existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. The permittee has installed a CPMS to continuously monitor operating parameters approved by the Director (if any) according to the requirements in §63.6625(b); and iii. The permittee has recorded the approved operating parameters (if any) during the initial performance test.
4. Existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. The permittee has installed a CPMS to continuously monitor operating parameters approved by the Director (if any) according to the requirements in §63.6625(b); and iii. The permittee has recorded the approved operating parameters (if any) during the initial performance test.
5. Existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions, and using a CEMS	i. The permittee has 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 §63.6625(a); and ii. The permittee has conducted a performance evaluation of the CEMS using PS 3 and 4A of NSPS Appendix B; and iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first four-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the four-hour period.
6. Existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and using a CEMS	i. The permittee has installed a CEMS to continuously monitor CO and either O ₂ or CO ₂ at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. The permittee has conducted a performance evaluation of the CEMS using PS 3 and 4A of NSPS Appendix B; and iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first four-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the four-hour period.

Table 3 to MACT ZZZZ—Subsequent Performance Tests

For each...	Complying with the requirement to...	The permittee shall...
4. Existing non-emergency, non-black start CI stationary RICE >500 HP that are not limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or three years, whichever comes first.

Monitoring, Installation, Collection, Operation, and Maintenance Requirements:

1. If the permittee elects to install a CEMS as specified in Table 5 of MACT ZZZZ, the permittee shall install, operate, and maintain a CEMS to monitor CO and either O₂ or CO₂ according to the requirements in §63.6625(a)(1) through (4) If the permittee is meeting a requirement to reduce CO emissions, the CEMS shall be installed at both the inlet and outlet of the control device. If the permittee is meeting a requirement to limit the concentration of CO, the CEMS shall be installed at the outlet of the control device. [§63.6625(a)]
 - a) Each CEMS shall be installed, operated, and maintained according to the applicable performance specifications of NSPS Appendix B. [§63.6625(a)(1)]
 - b) The permittee shall 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 NSPS Appendix B as well as daily and periodic data quality checks in accordance with NSPS Appendix F, Procedure 1. [§63.6625(a)(2)]
 - c) As specified in §63.8(c)(4)(ii), each CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. The permittee shall have at least two data points, with each representing a different 15-minute period, to have a valid hour of data. [§63.6625(a)(3)]
 - d) The CEMS data shall 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 CO₂ concentration. [§63.6625(a)(4)]
2. If the permittee is required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of MACT ZZZZ, the permittee shall install, operate, and maintain each CPMS according to the requirements in §63.6625(b)(1) through (6). [§63.6625(b)]
 - a) The permittee shall prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in §63.6625(b)(1)(i) through (v) and in §63.8(d). As specified in §63.8(f)(4), the permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in §63.6625(b)(1) through (5) in the site-specific monitoring plan. [§63.6625(b)(1)]
 - i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; [§63.6625(b)(1)(i)]
 - ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements; [§63.6625(b)(1)(ii)]
 - iii) Equipment performance evaluations, system accuracy audits, or other audit procedures; [§63.6625(b)(1)(iii)]
 - iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1)(ii) and (c)(3); and [§63.6625(b)(1)(iv)]
 - v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i). [§63.6625(b)(1)(v)]

- b) The permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in the site-specific monitoring plan. [§63.6625(b)(2)]
 - c) The CPMS shall collect data at least once every 15 minutes (see also §63.6635). [§63.6625(b)(3)]
 - d) For a CPMS for measuring temperature range, the temperature sensor shall have a minimum tolerance of 2.8°C (5°F) or one percent of the measurement range, whichever is larger. [§63.6625(b)(4)]
 - e) The permittee shall conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually. [§63.6625(b)(5)]
 - f) The permittee shall conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan. [§63.6625(b)(6)]
3. For existing non-emergency, non-black start CI engines greater than or equal to 300 HP that are not equipped with a closed crankcase ventilation system, the permittee shall comply with either §63.6625(g)(1) or (2). The permittee shall 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 Director to approve different maintenance requirements that are as protective as manufacturer requirements. [§63.6625(g)]
 - a) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or [§63.6625(g)(1)]
 - b) 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. [§63.6625(g)(2)]
 4. For existing stationary engines, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d to MACT ZZZZ apply. [§63.6625(h)]

Initial Compliance Requirements:

1. The permittee shall demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies according to Table 5 of MACT ZZZZ. [§63.6630(a)]
2. During the initial performance test, the permittee shall establish each operating limitation in Table 2b of MACT ZZZZ that applies. [§63.6630(b)]
3. The permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645. [§63.6630(c)]

Continuous Compliance Requirements:

1. The permittee shall monitor and collect data according to §63.6635. [§63.6635(a)]
2. Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the permittee shall monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [§63.6635(b)]
3. The permittee 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. The permittee shall, however, use all the valid data collected during all other periods. [§63.6635(c)]

4. The permittee shall demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 2b and 2d to MACT ZZZZ that apply according to methods specified in Table 6 to MACT ZZZZ. [§63.6640(a)]
5. The permittee shall report each instance in which the permittee did not meet each emission limitation or operating limitation in Tables 2b and 2d to MACT ZZZZ that apply. These instances are deviations from the emission and operating limitations in MACT ZZZZ. These deviations shall be reported according to the requirements in §63.6650. If the permittee changes a catalyst, the permittee shall reestablish the values of the operating parameters measured during the initial performance test. When the permittee reestablishes the values of the operating parameters, the permittee shall also conduct a performance test to demonstrate that the permittee is meeting the required emission limitation applicable to the stationary RICE. [§63.6640(b)]
6. For 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). [§63.6640(d)]
7. The permittee shall also report each instance in which the permittee did not meet the requirements in Table 8 to MACT ZZZZ that apply. [§63.6640(e)]

Table 6 to MACT ZZZZ—Continuous Compliance With Emission Limitations, and Other Requirements

For each...	Complying with the requirement to...	The permittee shall demonstrate continuous compliance by...
3. Existing non-emergency stationary CI RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to one-hour averages, calculating the percent reduction or concentration of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the four-hour averaging period, or that the emission remain at or below the CO concentration limit; and iii. Conducting an annual RATA of the CEMS using PS 3 and 4A of NSPS Appendix B, as well as daily and periodic data quality checks in accordance with NSPS Appendix F, Procedure 1.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst	i. Conducting performance tests every 8,760 hours or three years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to four-hour rolling averages; and iv. Maintaining the four-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.

For each...	Complying with the requirement to...	The permittee shall demonstrate continuous compliance by...
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst	i. Conducting performance tests every 8,760 hours or three years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO concentration limit; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to four-hour rolling averages; and iv. Maintaining the four-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

Notifications:

1. The permittee shall 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 by the dates specified. [§63.6645(a)]
2. The permittee shall 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). [§63.6645(g)]
3. The permittee shall submit a Notification of Compliance Status according to §63.9(h)(2)(ii). [§63.6645(h)]
 - a) For each initial compliance demonstration required in Table 5 to MACT ZZZZ that does not include a performance test, the permittee shall submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration. [§63.6645(h)(1)]
 - b) For each initial compliance demonstration required in Table 5 to MACT ZZZZ that includes a performance test conducted according to the requirements in Table 3 to MACT ZZZZ, the permittee shall 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). [§63.6645(h)(2)]

General Provisions:

The permittee shall comply with the applicable General Provisions in §§63.1 through 63.15 as specified by Table 8 to MACT ZZZZ. [§63.6665]

Recordkeeping:

1. The permittee shall keep the records described in §63.6655(a)(1) through (a)(5), (b)(1) through (b)(3) and (c). [§63.6655(a)]
 - a) A copy of each notification and report that the permittee submitted to comply with MACT ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted, according to the requirement in §63.10(b)(2)(xiv). [§63.6655(a)(1)]
 - b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [§63.6655(a)(2)]
 - c) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii). [§63.6655(a)(3)]

- d) Records of all required maintenance performed on the air pollution control and monitoring equipment. [§63.6655(a)(4)]
- e) 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. [§63.6655(a)(5)]
2. For each CEMS or CPMS, the permittee shall keep the records listed in §63.6655(b)(1) through (3). [§63.6655(b)]
 - a) Records described in §63.10(b)(2)(vi) through (xi). [§63.6655(b)(1)]
 - b) Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3). [§63.6655(b)(2)]
 - c) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable. [§63.6655(b)(3)]
3. The permittee shall keep the records required in Table 6 of MACT ZZZZ to show continuous compliance with each emission or operating limitation that applies. [§63.6655(d)]
4. Records shall be in a form suitable and readily available for expeditious review according to §63.10(b)(1). [§63.6660(a)]
5. As specified in §63.10(b)(1), the permittee shall keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.6660(b)]
6. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). [§63.6660(c)]

Reporting:

1. The permittee shall submit each report in Table 7 of MACT ZZZZ that applies. [§63.6650(a)]
2. Unless the Director has approved a different schedule for submission of reports under §63.10(a), the permittee shall submit each report by the date in Table 7 of MACT ZZZZ and according to the requirements in §63.6650(b)(1) through (b)(9). [§63.6650(b)]
 - a) For semiannual Compliance reports, the first Compliance report shall cover the period beginning on the compliance date that is specified for the 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 the source in §63.6595. [§63.6650(b)(1)]
 - b) For semiannual Compliance reports, the first Compliance report shall 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 the affected source in §63.6595. [§63.6650(b)(2)]
 - c) For semiannual Compliance reports, each subsequent Compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. [§63.6650(b)(3)]
 - d) For semiannual Compliance reports, each subsequent Compliance report shall 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. [§63.6650(b)(4)]
 - e) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR Part 70, and if the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A), the permittee may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in §63.6650(b)(1) through (b)(4). [§63.6650(b)(5)]
3. The Compliance report shall contain the information in §63.6650(c)(1) through (6). [§63.6650(c)]

- a) Company name and address. [§63.6650(c)(1)]
 - b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [§63.6650(c)(2)]
 - c) Date of report and beginning and ending dates of the reporting period. [§63.6650(c)(3)]
 - d) If the permittee had a malfunction during the reporting period, the compliance report shall 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 shall also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction. [§63.6650(c)(4)]
 - e) If there are no deviations from any emission or operating limitations that apply, a statement that there were no deviations from the emission or operating limitations during the reporting period. [§63.6650(c)(5)]
 - f) 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. [§63.6650(c)(6)]
4. For each deviation from an emission or operating limitation that occurs for a stationary RICE where the permittee is not using a CMS to comply with the emission or operating limitations in MACT ZZZZ, the Compliance report shall contain the information in §63.6650(c)(1) through (4) and the information in §63.6650(d)(1) and (2). [§63.6650(d)]
- a) The total operating time of the stationary RICE at which the deviation occurred during the reporting period. [§63.6650(d)(1)]
 - b) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. [§63.6650(d)(2)]
5. For each deviation from an emission or operating limitation occurring for a stationary RICE where the permittee is using a CMS to comply with the emission and operating limitations in MACT ZZZZ, the permittee shall include information in §63.6650(c)(1) through (4) and (e)(1) through (12). [§63.6650(e)]
- a) The date and time that each malfunction started and stopped. [§63.6650(e)(1)]
 - b) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks. [§63.6650(e)(2)]
 - c) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8). [§63.6650(e)(3)]
 - d) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period. [§63.6650(e)(4)]
 - e) 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. [§63.6650(e)(5)]
 - f) 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. [§63.6650(e)(6)]
 - g) 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. [§63.6650(e)(7)]
 - h) An identification of each parameter and pollutant (CO) that was monitored at the stationary RICE. [§63.6650(e)(8)]
 - i) A brief description of the stationary RICE. [§63.6650(e)(9)]

- j) A brief description of the CMS. [§63.6650(e)(10)]
 - k) The date of the latest CMS certification or audit. [§63.6650(e)(11)]
 - l) A description of any changes in CMS, processes, or controls since the last reporting period. [§63.6650(e)(12)]
6. Each affected source that has obtained a title V operating permit pursuant to 40 CFR Part 70 shall report all deviations as defined in MACT ZZZZ in the semiannual monitoring report required by §70.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of MACT ZZZZ along with, or as part of, the semiannual monitoring report required by §70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation MACT ZZZZ, 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. [§63.6650(f)]

Table 7 to MACT ZZZZ—Requirements for Reports

For each...	The permittee shall submit a...	The report shall contain...	The permittee shall submit the report...
1. Existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in §63.6650(b)(1)-(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and
		b. If the permittee had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or	i. Semiannually according to the requirements in §63.6650(b).
		c. If the permittee had a malfunction during the reporting period, the information in §63.6650(c)(4).	i. Semiannually according to the requirements in §63.6650(b).

PERMIT CONDITION 022				
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutant for Source Category: Gasoline Dispensing Facilities				
Emission Source	Description	Contents	Capacity (gallons)	GDF Monthly Throughput (gallons)
10225-A1/A2	Golf Course Cart Barn ONE Tank 1/2 Unleaded 1/2 Diesel	MOGAS/Diesel	1,000	<10,000
150-1	Underground Storage Tank	Gasoline	10,000	≥100,000
150-2	Underground Storage Tank	Gasoline	10,000	
150-3	Underground Storage Tank	Gasoline	10,000	
150-4	Underground Storage Tank	Gasoline	10,000	
1605-1	Underground Storage Tank	Gasoline	20,000	≥100,000
1605-2	Underground Storage Tank	Gasoline	15,000	
2210-A1	TFW Compound	MOGAS	10,000	<10,000
2210-A2	TFW Compound	MOGAS	10,000	
5267-A1	Transportation Motor Pool Tank	E85	12,000	≥10,000
5267-A2	Transportation Motor Pool Tank	Gasoline	12,000	
5267-A5	Transportation Motor Pool	MOGAS	10,000	

Definitions: [§63.11132]

1. *Gasoline* means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines.
2. *Gasoline dispensing facility (GDF)* means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.

General Requirements:

1. An affected source shall, upon request by the Director, demonstrate that their monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. Records required under this paragraph shall be kept for a period of five years. [§63.11111(e)]
2. For each affected source, the permittee shall comply with the requirements of §63.11115(a) and (b). [§63.11115]
 - a) The permittee shall, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Director 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. [§63.11115(a)]
 - b) The permittee shall keep applicable records and submit reports as specified in §63.11125(d) and §63.11126(b). [§63.11115(b)]

Requirements for Facilities with Monthly Throughput of less than 10,000 gallons of Gasoline:

1. The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: [§63.11116(a)]
 - a) Minimize gasoline spills; [§63.11116(a)(1)]
 - b) Clean up spills as expeditiously as practicable; [§63.11116(a)(2)]
 - c) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; [§63.11116(a)(3)]
 - d) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators. [§63.11116(a)(4)]
2. The permittee is not required to submit notifications or reports as specified in §63.11125, §63.11126, or MACT A, but the permittee shall have records available within 24 hours of a request by the Director to document the gasoline throughput. [§63.11116(b)]
3. The permittee shall comply with the requirements of MACT CCCCCC by the applicable dates specified in §63.11113. [§63.11116(c)]
4. Portable gasoline containers that meet the requirements of 40 CFR Part 59, Subpart F, are considered acceptable for compliance with §63.11116(a)(3). [§63.11116(d)]

Requirements for Facilities with Monthly Throughput of 10,000 gallons of Gasoline or more:

1. The permittee shall comply with the requirements in §63.11116(a). [§63.11117(a)]
2. Except as specified in §63.11117(c), the permittee shall only load gasoline into storage tanks at the facility by utilizing submerged filling, as defined in §63.11132, and as specified in §63.11117(b)(1), (b)(2), or (b)(3). The applicable distances in §63.11117(b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank. [§63.11117(b)]
 - a) Submerged fill pipes installed on or before November 9, 2006, shall be no more than 12 inches from the bottom of the tank. [§63.11117(b)(1)]
 - b) Submerged fill pipes installed after November 9, 2006, shall be no more than 6 inches from the bottom of the tank. [§63.11117(b)(2)]
 - c) Submerged fill pipes not meeting the specifications of §63.11117(b)(1) or (b)(2) are allowed if the permittee can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Director's delegated representative during the course of a site visit. [§63.11117(b)(3)]
3. Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in §63.11117(b), but shall comply with all of the requirements in §63.11116. [§63.11117(c)]
4. The permittee shall have records available within 24 hours of a request by the Director to document the gasoline throughput. [§63.11117(d)]
5. The permittee shall submit the applicable notifications as required under §63.11124(a). [§63.11117(e)]
6. The permittee shall comply with the requirements of MACT CCCCCC by the applicable dates contained in §63.11113. [§63.11117(f)]

Requirements for Facilities with Monthly Throughput of 100,000 gallons of Gasoline or more:

1. The permittee shall comply with the requirements in §§63.11116(a) and 63.11117(b). [§63.11118(a)]

2. Except as provided in §63.11118(c), the permittee shall meet the requirements in either §63.11118(b)(1) or (b)(2). [§63.11118(b)]
 - a) Each management practice in Table 1 to MACT CCCCCC that applies to the GDF. [§63.11118(b)(1)]
 - b) If, prior to January 10, 2008, the permittee satisfied the requirements in §63.11118(b)(2)(i) and (ii), the permittee will be deemed in compliance with §63.11118(b). [§63.11118(b)(2)]
 - i) The permittee operates a vapor balance system at the GDF that meets the requirements of either §63.11118(b)(2)(i)(A) or (b)(2)(i)(B). [§63.11118(b)(2)(i)]
 - (1) Achieves emissions reduction of at least 90 percent. [§63.11118(b)(2)(i)(A)]
 - (2) Operates using management practices at least as stringent as those in Table 1 to MACT CCCCCC. [§63.11118(b)(2)(i)(B)]
 - ii) The gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either §63.11118(b)(2)(i)(A) or (b)(2)(i)(B). [§63.11118(b)(2)(ii)]
3. The emission sources listed in §63.11118(c)(1) through (3) are not required to comply with the control requirements in §63.11118(b), but must comply with the requirements in §63.11117. [§63.11118(c)]
 - a) Gasoline storage tanks with a capacity of less than 250 gallons that are constructed after January 10, 2008. [§63.11118(c)(1)]
 - b) Gasoline storage tanks with a capacity of less than 2,000 gallons that were constructed before January 10, 2008. [§63.11118(c)(2)]
 - c) Gasoline storage tanks equipped with floating roofs, or the equivalent. [§63.11118(c)(3)]
4. Cargo tanks unloading at GDF shall comply with the management practices in Table 2 to MACT CCCCCC. [§63.11118(d)]
5. The permittee shall comply with the applicable testing requirements contained in §63.11120. [§63.11118(e)]
6. The permittee shall submit the applicable notifications as required under §63.11124. [§63.11118(f)]
7. The permittee shall keep records and submit reports as specified in §§63.11125 and 63.11126. [§63.11118(g)]
8. The permittee shall comply with the requirements of MACT CCCCCC by the applicable dates contained in §63.11113. [§63.11118(h)]

Table 1 to MACT CCCCCC—Applicability Criteria and Management Practices for Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More¹⁶

For each...	The permittee shall...
1. New, reconstructed, or existing GDF subject to §63.11118	Install and operate a vapor balance system on the gasoline storage tanks that meets the design criteria in (a) through (h): (a) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnect. (b) The vapor line from the gasoline storage tank to the gasoline cargo tank shall be vapor-tight, as defined in §63.11132. (c) The vapor balance system shall be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer. (d) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations. (e) If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in §63.11117(b). (f) Liquid fill connections for all systems shall be equipped with vapor-tight caps. (g) Pressure/vacuum (PV) vent valves shall be installed on the storage tank vent pipes. The pressure specifications for PV vent valves shall be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water. (h) The vapor balance system shall be capable of meeting the static pressure performance requirement of the following equation: $Pf = 2e^{\frac{-500.887}{v}}$ Where: Pf = Minimum allowable final pressure, inches of water. v = Total ullage affected by the test, gallons. e = Dimensionless constant equal to approximately 2.718. 2 = The initial pressure, inches water.
2. New or reconstructed GDF, or any storage tank(s) constructed after November 9, 2006, at an existing affected facility subject to §63.11118	Equip the gasoline storage tanks with a dual-point vapor balance system, as defined in §63.11132, and comply with the requirements of item 1 in this table.

¹⁶ The management practices specified in this table are not applicable if the permittee is complying with the requirements in §63.11118(b)(2), except that if the permittee is complying with the requirements in §63.11118(b)(2)(i)(B), the permittee shall operate using management practices at least as stringent as those listed in this table.

Table 2 to MACT CCCCCC—Applicability Criteria and Management Practices for Gasoline Cargo Tanks Unloading at Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More

For each...	The permittee shall...
gasoline cargo tank	Not unload gasoline into a storage tank at a GDF subject to the control requirements in MACT CCCCCC unless the following conditions are met: (i) All hoses in the vapor balance system are properly connected, (ii) The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect, (iii) All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight, (iv) All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank, and (v) All hatches on the tank truck are closed and securely fastened. (vi) The filling of storage tanks at GDF shall be limited to unloading from vapor-tight gasoline cargo tanks. Documentation that the cargo tank has met the specifications of EPA Method 27 shall be carried with the cargo tank, as specified in §63.11125(c).

Testing and Monitoring Requirements:

1. At the time of installation, as specified in §63.11113(e), of a vapor balance system required under §63.11118(b)(1), and every three years thereafter, the permittee shall comply with the requirements in §63.11120(a)(1) and (2). [§63.11120(a)]
 - a) The permittee shall demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 1 to MACT CCCCCC, for pressure-vacuum vent valves installed on the gasoline storage tanks using the test methods identified in §63.11120(a)(1)(i) or (a)(1)(ii). [§63.11120(a)(1)]
 - i) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see §63.14). [§63.11120(a)(1)(i)]
 - ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f). [§63.11120(a)(1)(ii)]
 - b) The permittee shall demonstrate compliance with the static pressure performance requirement specified in item 1(h) of Table 1 to MACT CCCCCC for the vapor balance system by conducting a static pressure test on the gasoline storage tanks using the test methods identified in §63.11120(a)(2)(i), (a)(2)(ii), or (a)(2)(iii). [§63.11120(a)(2)]
 - i) California Air Resources Board Vapor Recovery Test Procedure TP-201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999 (incorporated by reference, see §63.14). [§63.11120(a)(2)(i)]
 - ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f). [§63.11120(a)(2)(ii)]
 - iii) Bay Area Air Quality Management District Source Test Procedure ST-30—Static Pressure Integrity Test—Underground Storage Tanks, adopted November 30, 1983, and amended December 21, 1994 (incorporated by reference, see §63.14). [§63.11120(a)(2)(iii)]
2. If the permittee chooses, under the provisions of §63.6(g), to use a vapor balance system other than that described in Table 1 to MACT CCCCCC, the permittee shall demonstrate to the Director or delegated authority under §63.11131(a), the equivalency of the vapor balance system to that described in Table 1 to MACT CCCCCC using the procedures specified in §63.11120(b)(1) through (3). [§63.11120(b)]

- a) The permittee shall demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP-201.1,— Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see §63.14). [§63.11120(b)(1)]
 - b) The permittee shall, during the initial performance test required under §63.11120(b)(1), determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 1 to MACT CCCCCC and for the static pressure performance requirement in item 1(h) of Table 1 to MACT CCCCCC. [§63.11120(b)(2)]
 - c) The permittee shall comply with the testing requirements specified in §63.11120(a). [§63.11120(b)(3)]
3. Conduct of performance tests. Performance tests conducted for MACT CCCCCC shall be conducted under such conditions as the Director specifies to the permittee based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Upon request, the permittee shall make available to the Director such records as may be necessary to determine the conditions of performance tests. [§63.11120(c)]
 4. Gasoline cargo tanks subject to the provisions of Table 2 to MACT CCCCCC shall conduct annual certification testing according to the vapor tightness testing requirements found in §63.11092(f). [§63.11120(d)]

General Provisions:

The permittee shall comply with the applicable General Provisions in §§63.1 through 63.15 as specified by Table 3 to MACT CCCCCC. [§63.6665]

Notifications, Recordkeeping, and Reporting:

1. For affected sources subject to the control requirements in §63.11117, the permittee shall comply with §63.11124(a)(1) through (3). [§63.11124(a)]
 - a) The permittee shall submit an Initial Notification that the permittee is subject to MACT CCCCCC by May 9, 2008, or at the time the permittee becomes subject to the control requirements in §63.11117, unless the permittee meets the requirements in §63.11124(a)(3). If the affected source is subject to the control requirements in §63.11117 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, the permittee shall submit the Initial Notification by May 24, 2011. The Initial Notification shall contain the information specified in §63.11120(a)(1)(i) through (iii). The notification shall be submitted to the Administrator and Director as specified in §63.13. [§63.11124(a)(1)]
 - i) The name and address of the owner and the operator. [§63.11124(a)(1)(i)]
 - ii) The address (i.e., physical location) of the GDF. [§63.11124(a)(1)(ii)]
 - iii) A statement that the notification is being submitted in response to MACT CCCCCC and identifying the requirements in §63.11117(a) through (c) that apply. [§63.11124(a)(1)(iii)]
 - b) The permittee shall submit a Notification of Compliance Status to the Administrator and the Director, as specified in §63.13, within 60 days of the applicable compliance date specified in §63.11113, unless the permittee meets the requirements in §63.11124(a)(3). The Notification of Compliance Status shall be signed by a responsible official who shall certify its accuracy, shall indicate whether the source has complied with the requirements of MACT CCCCCC, and shall indicate whether the facilities' monthly throughput is calculated based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If the

facility is in compliance with the requirements of MACT CCCCCC at the time the Initial Notification required under §63.11124(a)(1) is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under §63.11124(a)(1). [§63.11124(a)(2)]

- c) If, prior to January 10, 2008, the permittee operated in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in §63.11117(b), the permittee is not required to submit an Initial Notification or a Notification of Compliance Status under §63.11124(a)(1) or (a)(2). [§63.11124(a)(3)]
2. For affected sources subject to the control requirements in §63.11118, the permittee shall comply with §63.11124(b)(1) through (5). [§63.11124(b)]
 - a) The permittee shall submit an Initial Notification that the permittee is subject to MACT CCCCCC by May 9, 2008, or at the time the permittee becomes subject to the control requirements in §63.11118. If the affected source is subject to the control requirements in §63.11118 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, the permittee shall submit the Initial Notification by May 24, 2011. The Initial Notification shall contain the information specified in §63.11124(b)(1)(i) through (iii). The notification shall be submitted to the Administrator and the Director as specified in §63.13. [§63.11124(b)(1)]
 - i) The name and address of the owner and the operator. [§63.11124(b)(1)(i)]
 - ii) The address (i.e., physical location) of the GDF. [§63.11124(b)(1)(ii)]
 - iii) A statement that the notification is being submitted in response to MACT CCCCCC and identifying the requirements in §63.11118(a) through (c) that apply. [§63.11124(b)(1)(iii)]
 - b) The permittee shall submit a Notification of Compliance Status to the Administrator and the Director, as specified in §63.13, in accordance with the schedule specified in §63.9(h). The Notification of Compliance Status shall be signed by a responsible official who shall certify its accuracy, shall indicate whether the source has complied with the requirements of MACT CCCCCC, and shall indicate whether the facility's throughput is determined based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If the facility is in compliance with the requirements of MACT CCCCCC at the time the Initial Notification required under §63.11124(b)(1) is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under §63.11124(b)(1). [§63.11124(b)(2)]
 - c) If, prior to January 10, 2008, the permittee satisfies the requirements in both §63.11124(b)(3)(i) and (ii), the permittee is not required to submit an Initial Notification or a Notification of Compliance Status under §63.11124(b)(1) or (b)(2). [§63.11124(b)(3)]
 - i) The permittee operates a vapor balance system at the gasoline dispensing facility that meets the requirements of either §63.11124(b)(3)(i)(A) or (b)(3)(i)(B). [§63.11124(b)(3)(i)]
 - (1) Achieves emissions reduction of at least 90 percent. [§63.11124(b)(3)(i)(A)]
 - (2) Operates using management practices at least as stringent as those in Table 1 to MACT CCCCCC. [§63.11124(b)(3)(i)(B)]
 - ii) The gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either §63.11124(b)(3)(i)(A) or (b)(3)(i)(B). [§63.11124(b)(3)(ii)]
 - d) The permittee shall submit a Notification of Performance Test, as specified in §63.9(e), prior to initiating testing required by §63.11120(a) and (b). [§63.11124(b)(4)]
 - e) The permittee shall submit additional notifications specified in §63.9, as applicable. [§63.11124(b)(5)]

3. For affected sources subject to the management practices in §63.11118, the permittee shall keep records of all tests performed under §63.11120(a) and (b). [§63.11125(a)]
4. Records required under §63.11125(a) shall be kept for a period of five years and shall be made available for inspection by the Director's delegated representatives during the course of a site visit. [§63.11125(b)]
5. Each gasoline cargo tank subject to the management practices in Table 2 to MACT CCCCCC shall keep records documenting vapor tightness testing for a period of five years. Documentation shall include each of the items specified in §63.11094(b)(2)(i) through (viii). Records of vapor tightness testing shall be retained as specified in either §63.11125(c)(1) or (c)(2). [§63.11125(c)]
 - a) The owner or operator of the cargo tank shall keep all vapor tightness testing records with the cargo tank. [§63.11125(c)(1)]
 - b) As an alternative to keeping all records with the cargo tank, the permittee may comply with the requirements of §63.11125(c)(2)(i) and (ii). [§63.11125(c)(2)]
 - i) The owner or operator of the cargo tank may keep records of only the most recent vapor tightness test with the cargo tank, and keep records for the previous four years at their office or another central location. [§63.11125(c)(2)(i)]
 - ii) Vapor tightness testing records that are kept at a location other than with the cargo tank shall be instantly available (e.g., via e-mail or facsimile) to the Director's delegated representative during the course of a site visit or within a mutually agreeable time frame. Such records shall be an exact duplicate image of the original paper copy record with certifying signatures. [§63.11125(c)(2)(ii)]
6. The permittee shall keep records as specified in §63.11125(d)(1) and (2). [§63.11125(d)]
 - a) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [§63.11125(d)(1)]
 - b) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [§63.11125(d)(2)]
7. For affected sources subject to the management practices in §63.11118, the permittee shall report to the Director the results of all volumetric efficiency tests required under §63.11120(b). Reports submitted under this paragraph shall be submitted within 180 days of the completion of the performance testing. [§63.11126(a)]
8. The permittee shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report shall also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with §63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred. [§63.11126(b)]

PERMIT CONDITION 023					
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants					
BOILERS					
Building	Quantity	Maximum Hourly Design Rate (MMBtu/hr)	Fuel Type	Manufacturer	Installation Date
311A	1	10.25	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Kewanee	1984
311A	1	25.25	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Hurst	2012
311A	1	16.8	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Superior	2005
1021	1	42	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Cleaver Brooks	2010
1021	1	42	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Cleaver Brooks	2010
2369	1	23.25	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Unilux	2015
2369	1	23.25	Natural Gas (Primary) & Fuel Oil #2 (Backup)	Unilux	2015
SPACE HEATERS					
Building	Quantity	MHDR (MMBtu/hr)	Fuel	Manufacturer	
1324	1	0.112	Fuel Oil #2	Borg Warner	
2305	2	<10 each	Fuel Oil #2	Unknown	
2306	2	0.12 each	Fuel Oil #2	Weather King	
2307	2	0.12 each	Fuel Oil #2	Weather King	
2319	1	0.25	Fuel Oil #2	Power Matic	
2323	1	0.112	Fuel Oil #2	Air Ease	
2549	1	0.095	Used Oil	Shenandoah	
2558	1	0.5	Fuel Oil #2	Power Matic	
5280	1	0.105	Fuel Oil #2	Heil	
Cedar Rapids Rock Crushing Plant					
Emission Source	Description				
EU0001	Cedar Rapids Truck Loading, 150 tph				
EU0002	Cedar Rapids Scalping Screen, 150 tph				
EU0003	Cedar Rapids Primary Crusher, 150 tph				
EU0004	Cedar Rapids (3) Conveyors and a Hopper, 600 tph				
EU0005	Cedar Rapids Primary Screening, 300 tph				
EU0006	Cedar Rapids Secondary Crushing, 150 tph				
EU0007	Cedar Rapids (3) Conveyors from Secondary Crusher, 450 tph				
EU0008	Cedar Rapids Secondary Screening, 150 tph				
EU0009	Cedar Rapids (7) Conveyors/Stackers, 300 tph				
EU0010	Cedar Rapids Tertiary Screening, 150 tph				
Thunderbird Rock Crushing Plant					
Emission Source	Description				
023C	Thunderbird Loading, 150 tph				
023D	Thunderbird Scalping Screen, 150 tph				

023E	Thunderbird Primary Crushing, 150 tph
023F	Thunderbird Primary Screening (3-Deck Screening), 150 tph
023G	Thunderbird (9) Conveyors, 1350 tph
023H	Thunderbird Secondary Crushers, 150 tph
Paint Booths	
Emission Source	Description
8	Bldg 5265 Furniture Paint Booth, 0.07 gal/hr
9	Bldg 5265/5266 Vehicle Paint Booths, 0.818 gal/hr
30	Bldg 5138 Paint Booth, 4.77 gal/hr

Emission Limitation:

1. The permittee shall not cause or permit to be discharged into the atmosphere from these emission units any visible emissions with an opacity greater than 20 percent. [10 CSR 10-6.220(3)(A)1]
2. Exception: The permittee may discharge into the atmosphere from any source of emissions for a period aggregating not more than six minutes in any 60 minutes air contaminants with an opacity up to 60 percent. [10 CSR 10-6.220(3)(A)2]

Monitoring:

1. The permittee shall conduct opacity readings on these emission units using the procedures contained in U.S. EPA Test Method 22. Readings are only required when the emission units are operating and when the weather conditions allow. If no visible emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions, the source representative would then conduct a Method 9 observation.
2. The following monitoring schedule shall be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then
 - b) Observations shall be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
 - c) Observations shall be made once per month. If a violation is noted, monitoring reverts to weekly.
3. If at the time of permit issuance the permittee has already progressed to conducting observations once every two weeks or once per month, the permittee may continue from that point in the schedule after permit issuance.
4. If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

1. The permittee shall maintain records of all observation results, using Attachments E and O or equivalent forms noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units and
 - b) All emission units from which visible emissions occurred.
2. The permittee shall maintain records of any equipment malfunctions.
3. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
4. All records shall be maintained for five years.

Reporting:

1. The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after an exceedance of the opacity limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 024	
10 CSR 10-6.261 Control of Sulfur Dioxide Emissions ¹⁷	
Emission Source	Description
GEN087	Bldg 1000 MP Command Key CH 751 Cummins Generator, 56HP
GEN1222	Bldg 979 MP School Cummins Generator, 87HP
GEN139	Fire Station 1 Cummins Generator, 134 HP
GEN173	Bldg 100 Front Gate Caterpillar Generator, 449 HP
GEN222	Bldg 1000 MP Station Kohler Generator, 20 HP
GEN227	Bldg 941 Basic Training Key Maintenance 285 Kohler Generator, 450 HP
GEN233	East Gate Key CH 751 Kohler Generator, 120 HP
GEN234	West Gate Kohler Generator, 240 HP
GEN235	South Gate Key CH 751 Kohler Generator, 107 HP
GEN255	Bldg 311 3 Hospital Detroit Generator, 500 HP
GEN290	Range Control (Radio Tower) Key 03165 Bldg X27 15288 Frontage Rd Cummins Generator, 40 HP
GEN317	Bldg 404 Phone Center Kohler Generator, 370 HP
GEN402	Bldg 5245 CMTF General Generator, 60 HP
GEN412	Bldg 5410 Lift Station Key 404 Gate 13260 CAT Generator, 45 HP
GEN417	Bldg 890 Chem School Alabama Ave Onan Generator, 60 HP
GEN434	Bldg 311 Hospital Phone Kohler Generator, 100 HP
GEN531	Kansas Ave Past Bldg 6104 Kohler Generator, 200 HP
GEN601	Bldg 311 2 Hospital Detroit Generator, 450 HP
GEN602	Bldg 311 1 Hospital Detroit Generator, 450 HP
GEN708	Nutter Field House CAT Generator, 480 HP
GEN821	Bldg 1601E Water Treatment MTU Generator, 1193 HP
GEN929	Bldg Repeater Hill Cummins Generator, 40 HP
GEN962	Airport Main Gate Code 21345 Kohler Generator, 567 HP
GENA76	Bldg 2369 Boiler Plant Detroit Generator, 486 HP
GENJ68	Bldg 1021 Boiler Plant 13590 Cassion Dr. Detroit Generator, 486 HP
GEN3LS	Mancen Bldg 3200 Phone Generator, 107 HP
GEN580	Bldg 181 Sewer Plant Caterpillar Generator, 645 HP
GEN775	Bldg 3203 Mancen Detroit Generator, 972 HP
GEN908	Davidson Fitness Center CAT Generator, 1620 HP
GEN910	Sewer Plant Outside MTU Generator, 1717 HP
GENK65	Bldg 3200 Mancen Kohler Generator, 1073 HP
Q631P	Cedar Rapids Cummins Generator, 240 HP

¹⁷ This regulation is enforceable by the State of Missouri only until it is approved into Missouri’s State Implementation Plan.

Q631Q	Cedar Rapids Cummins Generator, 240 HP
Q631R	Cedar Rapids Cummins Generator, 240 HP
EU0014	Cedar Rapids Cummins Primary Crusher Engine, 215 HP
EU0016	Cedar Rapids Cummins Secondary Crusher Engine, 215 HP
EU0017	Cedar Rapids Cummins Water Pump Engine, 100 HP
CDTF1	Chemical Defense Training Facility Katolight/D600FRX4 Generator, 947 HP
CDTF2	Chemical Defense Training Facility Kohler 300ROZD Generator, 450 HP
GEN141	Bldg 10252 Water Intake Caterpillar Engine, 262 HP

Operational Limitation:

The permittee shall limit the fuel sulfur content to 8,812 ppm. [10 CSR 10-6.261(3)(C)]

Compliance Methods:

1. The permittee shall demonstrate compliance using: [10 CSR 10-6.261(3)(E)3]
 - a) Fuel delivery records; or
 - b) Fuel sampling and analysis.

Reporting and Recordkeeping:

1. The permittee shall report any excess emissions other than startup, shutdown, and malfunction excess emissions already required to be reported under 10 CSR 10-6.050 to the Director for each calendar quarter within 30 days following the end of the quarter. In all cases, the notification shall be a written report and shall include, at a minimum, the following: [10 CSR 10-6.261(4)(A)1]
 - a) Name and location of source;
 - b) Name and telephone number of person responsible for the source;
 - c) Identity and description of the equipment involved;
 - d) Time and duration of the period of SO₂ excess emissions;
 - e) Type of activity;
 - f) Estimate of the magnitude of the SO₂ excess emissions expressed in the units of the applicable emission control regulation and the operating data and calculations used in estimating the magnitude;
 - g) Measures taken to mitigate the extent and duration of the SO₂ excess emissions; and
 - h) Measures taken to remedy the situation which caused the SO₂ excess emissions and the measures taken or planned to prevent the recurrence of these situations;
2. The permittee shall maintain a list of modifications to the source's operating procedures or other routine procedures instituted to prevent or minimize the occurrence of any excess SO₂ emissions; [10 CSR 10-6.261(4)(A)2]
3. The permittee shall maintain a record of data, calculations, results, records, and reports from any fuel deliveries, and/or fuel sampling tests. [10 CSR 10-6.261(4)(A)3]
4. If using fuel delivery records to demonstrate compliance, the permittee shall also maintain the fuel supplier certification information to certify all fuel deliveries. Bills of lading and/or other fuel delivery documentation containing the following information for all fuel purchases or deliveries are deemed acceptable: [10 CSR 10-6.261(4)(C)]
 - a) The name, address, and contact information of the fuel supplier;
 - b) The type of fuel (diesel, #2 fuel oil, etc.);
 - c) The sulfur content or maximum sulfur content expressed in percent sulfur by weight or in ppm sulfur; and
 - d) The heating value of the fuel.

5. If using fuel sampling and analysis to demonstrate compliance, the permittee shall also follow the requirements in 10 CSR 10-6.261(5)(D). [10 CSR 10-6.261(4)(D)]
6. All required reports and records shall be retained on-site for a minimum of five years and made available within five business days upon written or electronic request by the Director. [10 CSR 10-6.261(4)(F)]
7. The permittee shall furnish the Director all data necessary to determine compliance status. [10 CSR 10-6.261(4)(G)]
8. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 025	
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds ¹⁸	
10 CSR 10-6.261 Control of Sulfur Dioxide Emissions ¹⁹	
Emission Source	Description
054D	Drum Dryer, 50 MMBtu/hr Fuel Oil #2, 200 tph
057G	Asphalt Heater, 2.2 MMBtu/hr Fuel Oil #2
002A	Bldg 311A Kewanee Boiler, 10.25 MMBtu/hr Natural Gas with Fuel Oil #2 backup
002BB	Bldg 311A Hurst Boiler, 25.25 MMBtu/hr Natural Gas with Fuel Oil #2 backup
002Z	Bldg 311A Superior Boiler, 16.8 MMBtu/hr Natural Gas with Fuel Oil #2 backup
002AA	Bldg 1021 Cleaver Brooks Boiler, 42 MMBtu/hr Natural Gas with Fuel Oil #2 backup
002S	Bldg 1021 Cleaver Brooks Boiler, 42 MMBtu/hr Natural Gas with Fuel Oil #2 backup
002X	Bldg 2369 Unilux Boiler, 23.25 MMBtu/hr Natural Gas with Fuel Oil #2 backup
002Y	Bldg 2369 Unilux Boiler, 23.25 MMBtu/hr Natural Gas with Fuel Oil #2 backup
EU0013	Bldg 2558 Power Matic Heater, 0.5 MMBtu/hr Fuel Oil #2

Emission Limitation:

1. The permittee shall not cause or allow emissions of SO₂ into the atmosphere from any indirect heating source in excess of 8 lb/MMBtu actual heat input averaged on any consecutive three-hour period. [10 CSR 10-6.260(3)(B)2.A]
2. The permittee shall limit SO₂ to no more than 8 lb/MMBtu heat input averaged on a consecutive three-hour time period. [10 CSR 10-6.261(3)(B)1]

Operational Limitation:

The permittee shall not combust fuel oil that contains greater than 0.5 weight percent sulfur.

Compliance Demonstration:

Fuel	Emission Factor & Source	Heat Content & Source	Emission Rate (lb/MMBtu)
Natural Gas	0.6 lb/MMscf AP-42 Table 1.4-2	1,050 MMBtu/MMscf AP-42 Appendix A	0.0006

¹⁸ This regulation was rescinded from Missouri's Code of State Regulations on November 30, 2015 and is no longer state enforceable; however, as this regulation still appears in Missouri's State Implementation Plan this regulation is still a federally-enforceable applicable requirement and must be included in this permit.

¹⁹ This regulation is enforceable by the State of Missouri only until it is approved into Missouri's State Implementation Plan.

Fuel Oil #2	142S lb/1,000 gallons ²⁰ AP-42 Table 1.3-1	140 MMBtu/1,000 gallons AP-42 Appendix A	0.51
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Compliance Methods:

1. The permittee shall demonstrate compliance using: [10 CSR 10-6.261(3)(E)3]
 - a) Fuel delivery records; or
 - b) Fuel sampling and analysis.

Reporting and Recordkeeping:

1. The permittee shall report any excess emissions other than startup, shutdown, and malfunction excess emissions already required to be reported under 10 CSR 10-6.050 to the Director for each calendar quarter within 30 days following the end of the quarter. In all cases, the notification shall be a written report and shall include, at a minimum, the following: [10 CSR 10-6.261(4)(A)1]
 - a) Name and location of source;
 - b) Name and telephone number of person responsible for the source;
 - c) Identity and description of the equipment involved;
 - d) Time and duration of the period of SO₂ excess emissions;
 - e) Type of activity;
 - f) Estimate of the magnitude of the SO₂ excess emissions expressed in the units of the applicable emission control regulation and the operating data and calculations used in estimating the magnitude;
 - g) Measures taken to mitigate the extent and duration of the SO₂ excess emissions; and
 - h) Measures taken to remedy the situation which caused the SO₂ excess emissions and the measures taken or planned to prevent the recurrence of these situations;
2. The permittee shall maintain a list of modifications to the source's operating procedures or other routine procedures instituted to prevent or minimize the occurrence of any excess SO₂ emissions; [10 CSR 10-6.261(4)(A)2]
3. The permittee shall maintain a record of data, calculations, results, records, and reports from any fuel deliveries, and/or fuel sampling tests. [10 CSR 10-6.261(4)(A)3]
4. If using fuel delivery records to demonstrate compliance, the permittee shall also maintain the fuel supplier certification information to certify all fuel deliveries. Bills of lading and/or other fuel delivery documentation containing the following information for all fuel purchases or deliveries are deemed acceptable: [10 CSR 10-6.261(4)(C)]
 - a) The name, address, and contact information of the fuel supplier;
 - b) The type of fuel (diesel, #2 fuel oil, etc.);
 - c) The sulfur content or maximum sulfur content expressed in percent sulfur by weight or in ppm sulfur; and
 - d) The heating value of the fuel.
5. If using fuel sampling and analysis to demonstrate compliance, the permittee shall also follow the requirements in 10 CSR 10-6.261(5)(D). [10 CSR 10-6.261(4)(D)]
6. All required reports and records shall be retained on-site for a minimum of five years and made available within five business days upon written or electronic request by the Director. [10 CSR 10-6.261(4)(F)]

²⁰ Where S is the sulfur content of the fuel.

7. The permittee shall furnish the Director all data necessary to determine compliance status. [10 CSR 10-6.261(4)(G)]
8. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 026		
10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes		
Emission Source	Description	Control Equipment
051A	Aggregate Handling Bins, 184 tph	None
052B	Aggregate Handling Conveyor, 552 tph	None

Emission Limitation:

The permittee shall not emit PM in excess of the limits given in the following table:

Emission Source	Description	PM Emission Limit (lb/hr)
051A	Aggregate Handling Bins, 184 tph	57.61
052B	Aggregate Handling Conveyor, 552 tph	70.15

Compliance Demonstration:

The following table demonstrates that the emission sources are in compliance with the regulation:

Emission Source	MHDR (tph)	PM Emission Factor (lb/ton)	Emission Factor Source	Potential Uncontrolled PM Emission Rate (lb/hr)	PM Emission Limit (lb/hr)
051A	184	0.003	FIRE Process SCC	0.55	57.61
052B	552	0.003	30502006	1.66	70.15

Monitoring/Recordkeeping/Reporting:

The compliance demonstration shows that the emission sources are in compliance with this regulation without the aid of a control device; therefore, no additional monitoring, recordkeeping, or reporting is required at this time.

PERMIT CONDITION 027		
10 CSR 10-6.065(6)(C)2.A Voluntary Permit Condition		
Emission Source	Description	Control Equipment
8	Bldg 5265 Furniture Paint Booth, 0.07 gal/hr	Fabric Filter
9	Bldg 5265/5266 Vehicle Paint Booths, 0.818 gal/hr	Fabric Filter
30	Bldg 5138 Paint Booth, 4.77 gal/hr	Fabric Filter

Emission Limitation:

The permittee shall not cause or permit to be discharged into the atmosphere from these emission units any visible emissions.

Operational Limitations:

1. The permittee shall capture and control emissions from the surface coating operations in buildings 5138, 5265, and 5266 using paint booths and fabric filters.
2. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications.

3. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. The gauges or meters shall be located such that Department of Natural Resources' employees may easily observe them. The pressure drop shall be measured and recorded at least once every 24 hours while surface coating operations are occurring. The pressure drop shall be maintained with the design conditions specified by the fabric filter manufacturer's performance specifications.

Monitoring/Recordkeeping:

1. The permittee shall maintain a copy of each fabric filter's manufacturer's specification onsite.
2. The permittee shall maintain an operating and maintenance log for each fabric filter which shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
3. The permittee shall conduct visible emissions readings on these emission units using the procedures contained in U.S. EPA Test Method 22. Readings are only required when the emission units are operating and when the weather conditions allow. If visible emissions are observed using these procedures, surface coating shall be halted immediately and shall not resume until the fabric filter has been replaced.
4. The following visible emissions monitoring schedule shall be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then
 - b) Observations shall be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
 - c) Observations shall be made once per month. If a violation is noted, monitoring reverts to weekly.
 - d) If at the time of permit issuance the permittee has already progressed to conducting observations once every two weeks or once per month, the permittee may continue from that point in the schedule after permit issuance.
 - e) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.
5. The permittee shall maintain records of all observation results (see Attachment E or an equivalent form approved by the Air Pollution Control Program), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units and
 - b) All emission units from which visible emissions occurred.
6. The permittee shall maintain all records required by this permit for not less than five years and shall make them available to Missouri Department of Natural Resources' personnel upon request. These records shall include SDS for all materials used. [§70.6(a)(3)(ii)]

Reporting:

The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 028				
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines				
Emission Source	Description	Capacity	Construction Date	Engine Type
EU0015	Cummins Secondary Crusher Engine	315 HP	1996	CI

Applicability:

For stationary RICE used for national security purposes, the permittee may be eligible to request an exemption from the requirements of MACT ZZZZ as described in 40 CFR Part 1068, Subpart C. [§63.6585(e)]

Emission and Operating Limitations:

1. Compliance with the numerical emission limitations established in MACT ZZZZ is based on the results of testing the average of three one-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to MACT ZZZZ. [§63.6603]
 - a) For existing stationary RICE located at an area source of HAP emissions, the permittee shall comply with the requirements in Table 2d to MACT ZZZZ that apply. [§63.6603(a)]
 - b) For existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that are certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that are subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, the permittee may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of MACT ZZZZ instead of the applicable emission limitations in Table 2d of MACT ZZZZ and crankcase ventilation system requirements in §63.6625(g). The permittee shall comply with the emission limitations in Table 2d of MACT ZZZZ that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. The permittee shall also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. [§63.6603(d)]
 - c) For existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, the permittee may comply with the requirements under MACT ZZZZ by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in NSPS IIII instead of the emission limitations and other requirements that would otherwise apply under MACT ZZZZ for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions. [§63.6603(e)]

Table 2d to MACT ZZZZ—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

For each...	The permittee shall meet the following requirement, except during periods of startup...
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O ₂ ; or b. Reduce CO emissions by 70 percent or more.

Fuel Requirements:

For existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, the permittee shall use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. [§63.6604(a)]

General Compliance Requirements:

1. The permittee shall be in compliance with the operating limitations, and other requirements in MACT ZZZZ that apply at all times. [§63.6605(a)]
2. At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee 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 Director 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. [§63.6605(b)]

Testing and Initial Compliance Requirements:

1. The permittee shall conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to MACT ZZZZ that apply within 180 days after the compliance date that is specified for the stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2). [§63.6612(a)]
2. The permittee 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 §63.6612(b)(1) through (4). [§63.6612(b)]
 - a) The test must have been conducted using the same methods specified in MACT ZZZZ, and these methods must have been followed correctly. [§63.6612(b)(1)]
 - b) The test must not be older than two years. [§63.6612(b)(2)]
 - c) The test must be reviewed and accepted by the Director. [§63.6612(b)(3)]
 - d) Either no process or equipment changes must have been made since the test was performed, or the permittee must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes. [§63.6612(b)(4)]
3. The permittee shall comply with the test methods and procedures in §63.6620 when conducting performance tests.

Table 4 to MACT ZZZZ—Requirements for Performance Tests

For each...	Complying with the requirement to...	The permittee shall...	Using...	According to the following requirements...
1. CI stationary RICE	a. reduce CO emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For CO and O ₂ measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at three traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of §11.1.1 of Method 1 of NSPS Appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to §8.1.2 of Method 7E of NSPS Appendix A-4.
		ii. Measure the O ₂ at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of NSPS Appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) ²¹ (heated probe not necessary)	(b) Measurements to determine O ₂ must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device	(1) ASTM D6522-00 (Reapproved 2005) ¹² (heated probe not necessary) or Method 10 of NSPS Appendix A-4	(c) The CO concentration must be at 15 percent O ₂ , dry basis.

²¹ The permittee may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). The permittee 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.

For each...	Complying with the requirement to...	The permittee shall...	Using...	According to the following requirements...
3. Stationary RICE	a. limit the concentration of CO in the stationary RICE exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and		(a) For CO, O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at three traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of §11.1.1 of Method 1 of NSPS Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to §8.1.2 of Method 7E of NSPS Appendix 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 NSPS Appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) ¹² (heated probe not necessary)	(a) Measurements to determine O ₂ concentration must be made at the same time and location as the measurements for CO concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of NSPS Appendix A-3, or Method 320 of MACT Appendix A, or ASTM D 6348-03 ²²	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for CO concentration.
		v. measure CO at the exhaust of the stationary RICE	(1) Method 10 of NSPS Appendix A-4, ASTM Method D6522-00 (2005) ¹² , Method 320 of MACT Appendix A, or ASTM D6348-03 ¹³	(a) CO concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three one-hour or longer runs.

²² The permittee 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.

Table 5 to MACT ZZZZ—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements

For each...	Complying with the requirement to...	The permittee has demonstrated initial compliance if...
11. Existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO emissions	i. The average reduction of emissions of CO, as applicable determined from the initial performance test is equal to or greater than the required CO, as applicable, percent reduction.
12. Existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of CO in the stationary RICE exhaust	i. The average CO concentration, as applicable, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the CO emission limitation, as applicable.

Monitoring, Installation, Collection, Operation, and Maintenance Requirements:

1. For existing non-emergency, non-black start CI engines greater than or equal to 300 HP that are not equipped with a closed crankcase ventilation system, the permittee shall comply with either §63.6625(g)(1) or (2). The permittee shall 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 Director to approve different maintenance requirements that are as protective as manufacturer requirements. [§63.6625(g)]
 - a) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or [§63.6625(g)(1)]
 - b) 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. [§63.6625(g)(2)]
2. For existing stationary engines, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d to MACT ZZZZ apply. [§63.6625(h)]

Initial Compliance Requirements:

1. The permittee shall demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies according to Table 5 of MACT ZZZZ. [§63.6630(a)]
2. The permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645. [§63.6630(c)]

Continuous Compliance Requirements:

1. The permittee shall report each instance in which the permittee did not meet each emission limitation in Table 2d to MACT ZZZZ that applies. These instances are deviations from the emission and operating limitations in MACT ZZZZ. These deviations shall be reported according to the requirements in §63.6650. If the permittee changes a catalyst, the permittee shall reestablish the values of the operating parameters measured during the initial performance test. When the permittee reestablishes the values of the operating parameters, the permittee shall also conduct a performance test to demonstrate that the permittee is meeting the required emission limitation applicable to the stationary RICE. [§63.6640(b)]
2. For 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). [§63.6640(d)]

3. The permittee shall also report each instance in which the permittee did not meet the requirements in Table 8 to MACT ZZZZ that apply. [§63.6640(e)]

Notifications:

1. The permittee shall 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 by the dates specified.[§63.6645(a)]
2. The permittee shall 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). [§63.6645(g)]
3. The permittee shall submit a Notification of Compliance Status according to §63.9(h)(2)(ii). [§63.6645(h)]
 - a) For each initial compliance demonstration required in Table 5 to MACT ZZZZ that does not include a performance test, the permittee shall submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration. [§63.6645(h)(1)]
 - b) For each initial compliance demonstration required in Table 5 to MACT ZZZZ that includes a performance test conducted according to the requirements in Table 3 to MACT ZZZZ, the permittee shall 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). [§63.6645(h)(2)]

General Provisions:

The permittee shall comply with the applicable General Provisions in §§63.1 through 63.15 as specified by Table 8 to MACT ZZZZ. [§63.6665]

Recordkeeping:

1. The permittee shall keep the records described in §63.6655(a)(1) through (a)(5), (b)(1) through (b)(3) and (c). [§63.6655(a)]
 - a) A copy of each notification and report that the permittee submitted to comply with MACT ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted, according to the requirement in §63.10(b)(2)(xiv). [§63.6655(a)(1)]
 - b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [§63.6655(a)(2)]
 - c) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii). [§63.6655(a)(3)]
 - d) Records of all required maintenance performed on the air pollution control and monitoring equipment. [§63.6655(a)(4)]
 - e) 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. [§63.6655(a)(5)]
2. Records shall be in a form suitable and readily available for expeditious review according to §63.10(b)(1). [§63.6660(a)]
3. As specified in §63.10(b)(1), the permittee shall keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.6660(b)]

4. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). [§63.6660(c)]

Reporting:

1. The permittee shall submit each report in Table 7 of MACT ZZZZ that applies. [§63.6650(a)]
2. Unless the Director has approved a different schedule for submission of reports under §63.10(a), the permittee shall submit each report by the date in Table 7 of MACT ZZZZ and according to the requirements in §63.6650(b)(1) through (b)(5). [§63.6650(b)]
 - a) For semiannual Compliance reports, the first Compliance report shall cover the period beginning on the compliance date that is specified for the 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 the source in §63.6595. [§63.6650(b)(1)]
 - b) For semiannual Compliance reports, the first Compliance report shall 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 the affected source in §63.6595. [§63.6650(b)(2)]
 - c) For semiannual Compliance reports, each subsequent Compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. [§63.6650(b)(3)]
 - d) For semiannual Compliance reports, each subsequent Compliance report shall 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. [§63.6650(b)(4)]
 - e) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR Part 70, and if the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A), the permittee may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in §63.6650(b)(1) through (b)(4). [§63.6650(b)(5)]
3. The Compliance report shall contain the information in §63.6650(c)(1) through (6). [§63.6650(c)]
 - a) Company name and address. [§63.6650(c)(1)]
 - b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [§63.6650(c)(2)]
 - c) Date of report and beginning and ending dates of the reporting period. [§63.6650(c)(3)]
 - d) If the permittee had a malfunction during the reporting period, the compliance report shall 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 shall also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction. [§63.6650(c)(4)]
 - e) If there are no deviations from any emission or operating limitations that apply, a statement that there were no deviations from the emission or operating limitations during the reporting period. [§63.6650(c)(5)]
 - f) 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. [§63.6650(c)(6)]
4. For each deviation from an emission or operating limitation that occurs for a stationary RICE where the permittee is not using a CMS to comply with the emission or operating limitations in MACT

- ZZZZ, the Compliance report shall contain the information in §63.6650(c)(1) through (4) and the information in §63.6650(d)(1) and (2). [§63.6650(d)]
- a) The total operating time of the stationary RICE at which the deviation occurred during the reporting period. [§63.6650(d)(1)]
 - b) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. [§63.6650(d)(2)]
5. For each deviation from an emission or operating limitation occurring for a stationary RICE where the permittee is using a CMS to comply with the emission and operating limitations in MACT ZZZZ, the permittee shall include information in §63.6650(c)(1) through (4) and (e)(1) through (12). [§63.6650(e)]
- a) The date and time that each malfunction started and stopped. [§63.6650(e)(1)]
 - b) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks. [§63.6650(e)(2)]
 - c) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8). [§63.6650(e)(3)]
 - d) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period. [§63.6650(e)(4)]
 - e) 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. [§63.6650(e)(5)]
 - f) 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. [§63.6650(e)(6)]
 - g) 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. [§63.6650(e)(7)]
 - h) An identification of each parameter and pollutant (CO) that was monitored at the stationary RICE. [§63.6650(e)(8)]
 - i) A brief description of the stationary RICE. [§63.6650(e)(9)]
 - j) A brief description of the CMS. [§63.6650(e)(10)]
 - k) The date of the latest CMS certification or audit. [§63.6650(e)(11)]
 - l) A description of any changes in CMS, processes, or controls since the last reporting period. [§63.6650(e)(12)]
6. Each affected source that has obtained a title V operating permit pursuant to 40 CFR Part 70 shall report all deviations as defined in MACT ZZZZ in the semiannual monitoring report required by §70.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of MACT ZZZZ along with, or as part of, the semiannual monitoring report required by §70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation MACT ZZZZ, 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. [§63.6650(f)]

Table 7 to MACT ZZZZ—Requirements for Reports

For each...	The permittee shall submit a...	The report shall contain...	The permittee shall submit the report...
1. Existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in §63.6650(b)(1)-(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and
		b. If the permittee had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or	i. Semiannually according to the requirements in §63.6650(b).
		c. If the permittee had a malfunction during the reporting period, the information in §63.6650(c)(4).	i. Semiannually according to the requirements in §63.6650(b).

PERMIT CONDITION 029			
10 CSR 10-6.070 New Source Performance Regulations			
40 CFR Part 60, Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines			
Emission Source	Description	Capacity	Model Year
061K	Cummins Diesel Generator	369 HP	2012

Applicability:

Stationary CI ICE may be eligible for exemption from the requirements of NSPS III 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 the permittee may be eligible to request an exemption for national security. [§60.4200(d)]

Emission Standards:

1. For 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder, the permittee shall comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable. [§60.4204(b)]
2. For non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder for which the permittee conducts performance tests in-use, the permittee shall meet the not-to-exceed (NTE) standards as indicated in §60.4212. [§60.4204(d)]

3. Modified or reconstructed non-emergency stationary CI ICE shall meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in §60.4204(b) and (d).
[§60.4204(e)]
4. The permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine. [§60.4206]

Fuel Requirements:

1. For stationary CI ICE with a displacement of less than 30 liters per cylinder that use diesel fuel, the permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [§60.4207(b)]
2. Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in §60.4207. [§60.4207(e)]

Other Requirement:

For stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter shall be installed with a backpressure monitor that notifies the permittee when the high backpressure limit of the engine is approached. [§60.4209(b)]

Compliance Requirements:

1. The permittee shall do all of the following, except as permitted under §60.4211(g): [§60.4211(a)]
 - a) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; [§60.4211(a)(1)]
 - b) Change only those emission-related settings that are permitted by the manufacturer; and [§60.4211(a)(2)]
 - c) Meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply. [§60.4211(a)(3)]
2. For 2007 model year and later stationary CI internal combustion engine subject to the emission standards specified in §60.4204(b), the permittee shall comply by purchasing an engine certified to the emission standards in §60.4204(b), for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g). [§60.4211(c)]
3. For modified or reconstructed stationary CI internal combustion engine subject to the emission standards specified in §60.4204(e), the permittee shall demonstrate compliance according to one of the methods specified in §60.4211(e)(1) or (2). [§60.4211(e)]
 - a) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4204(e). [§60.4211(e)(1)]
 - b) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test shall be conducted within 60 days after the engine commences operation after the modification or reconstruction. [§60.4211(e)(2)]
4. If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows: [§60.4211(g)]

- a) For stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, the permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. [§60.4211(g)(2)]

Testing Requirements:

The permittee shall comply with the test methods and procedures specified in §60.4212 when conducting performance tests.

General Provisions:

The permittee shall comply with the applicable General Provisions in §§60.1 through 60.19 as specified by Table 8 to NSPS III. [§63.6665]

Recordkeeping:

If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the permittee shall keep records of any corrective action taken after the backpressure monitor has notified the permittee that the high backpressure limit of the engine is approached. [§60.4214(c)]

PERMIT CONDITION 030			
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds ²³			
Emission Source	Description	Capacity	Model Year
048	(5) Caterpillar DPGDS Generators	1126 HP each	2008
	Caterpillar DPGDS Generator	1126 HP	2009
060J	Cummins Diesel Generator	1207 HP	2012
GEN821	Bldg 1601E Water Treatment MTU Generator	1193 HP	2014

Emission Limitation:

The permittee shall not cause or permit the emission into the atmosphere any gases containing more than 500 ppmv of SO₂ or more than 35 mg/m³ of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period. [10 CSR 10-6.260(3)(A)2]

Compliance Demonstration:

These engines are limited to a sulfur content of 15 ppm by §60.4207(b). The permittee is in compliance with the emission limitation as AP-42 Table 3.4-1 (October 1996) indicates that engines of greater than 600 hp emit 1.01S lb/MMBtu SO_x, where S is the sulfur content (%). Using an F factor of 10,320

²³ This regulation was rescinded from Missouri's Code of State Regulations on November 30, 2015 and is no longer state enforceable; however, as this regulation still appears in Missouri's State Implementation Plan this regulation is still a federally-enforceable applicable requirement and must be included in this permit.

wscf/MMBtu from NSPS Appendix A Method 19 Table 19-1, a conversion factor of 1.660E-7 lb/scf per ppmv from NSPS Appendix A Method 19, and the NSPS III sulfur content limit, 1.01S lb/MMBtu SO_x converts to 0.88 ppmv SO₂.

PERMIT CONDITION 031			
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds ²⁴			
Emission Source	Description	Capacity	Model Year
061K	Cummins Diesel Generator	369 HP	2012
Q631P	Cummins Diesel Generator	240 HP	1995
Q631Q	Cummins Diesel Generator	240 HP	1995
Q631R	Cummins Diesel Generator	240 HP	1995
EU0014	Cummins Primary Crusher Engine	215 HP	1996
EU0015	Cummins Secondary Crusher Engine	315 HP	1996
EU0016	Cummins Tertiary Crusher Engine	215 HP	1996
EU0017	Cummins Water Pump Engine	100 HP	1996
GEN087	Bldg 1000 MP Command Key CH 751 Cummins Generator	56 HP	2004
GEN1222	Bldg 979 MP School Cummins Generator	87 HP	1998
GEN139	Fire Station 1 Cummins Generator	134 HP	2000
GEN173	Bldg 100 Front Gate Caterpillar Generator	449 HP	2004
GEN222	Bldg 1000 MP Station Kohler Generator	20 HP	1984
GEN227	Bldg 941 Basic Training Key Maintenance 285 Kohler Generator	450 HP	2003
GEN233	East Gate Key CH 751 Kohler Generator	120 HP	2011
GEN234	West Gate Kohler Generator	240 HP	2011
GEN235	South Gate Key CH 751 Kohler Generator	107 HP	2011
GEN255	Bldg 311 3 Hospital Detroit Generator	500 HP	1983
GEN290	Range Control (Radio Tower) Key 03165 Bldg X27 15288 Frontage Rd Cummins Generator	40 HP	2004
GEN317	Bldg 404 Phone Center Kohler Generator	370 HP	1986
GEN402	Bldg 5245 CMTF General Generator	60 HP	1998
GEN412	Bldg 5410 Lift Station Key 404 Gate 13260 CAT Generator	45 HP	2006
GEN417	Bldg 890 Chem School Alabama Ave Onan Generator	60 HP	1998
GEN434	Bldg 311 Hospital Phone Kohler Generator	100 HP	1989
GEN531	Kansas Ave Past Bldg 6104 Kohler Generator	200 HP	2009
GEN601	Bldg 311 2 Hospital Detroit Generator	450 HP	1983
GEN602	Bldg 311 Hospital Detroit Generator	450 HP	1983
GEN708	Nutter Field House CAT Generator	480 HP	2010
GEN929	Bldg Repeater Hill Cummins Generator	40 HP	2004

²⁴ This regulation was rescinded from Missouri's Code of State Regulations on November 30, 2015 and is no longer state enforceable; however, as this regulation still appears in Missouri's State Implementation Plan this regulation is still a federally-enforceable applicable requirement and must be included in this permit.

GEN962	Airport Main Gate Code 21345 Kohler Generator	567 HP	2003
GENA76	Bldg 2369 Boiler Plant Detroit Generator	486 HP	1978
GENJ68	Bldg 1021 Boiler Plant 13590 Cassion Dr. Detroit Generator	486 HP	1978
GEN3LS	Mancen Bldg 3200 Phone Generator	107 HP	2012
CDTF2	Kohler 300ROZD Generator	450 HP	1997
GEN141	Bldg 10252 Water Intake Caterpillar Engine	262 HP	1971

Emission Limitation:

The permittee shall not cause or permit the emission into the atmosphere any gases containing more than 500 ppmv of SO₂ or more than 35 mg/m³ of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period. [10 CSR 10-6.260(3)(A)2]

Compliance Demonstration:

The permittee is in compliance with the emission limitation as AP-42 Table 3.3-1 (October 1996) indicates that engines of less than 600 hp emit 0.29 lb/MMBtu SO_x. Using an F factor of 10,320 wscf/MMBtu from NSPS Appendix A Method 19 Table 19-1 and a conversion factor of 1.660E-7 lb/scf per ppmv from NSPS Appendix A Method 19, 0.29 lb/MMBtu SO_x converts to 169 ppmv SO₂.

PERMIT CONDITION 032			
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds ²⁵			
Emission Source	Description	Capacity	Model Year
GEN580	Bldg 181 Sewer Plant Caterpillar Generator	645 HP	1976
GEN775	Bldg 3203 Mancen Detroit Generator	972 HP	1998
GEN908	Davidson Fitness Center CAT Generator	1620 HP	2011
GEN910	Sewer Plant Outside MTU Generator	1717 HP	2010
GENK65	Bldg 3200 Mancen Kohler Generator	1073 HP	2013
CDTF1	Katolight/D600FRX4 Generator	947 HP	1998

Emission Limitation:

The permittee shall not cause or permit the emission into the atmosphere any gases containing more than 500 ppmv of SO₂ or more than 35 mg/m³ of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period. [10 CSR 10-6.260(3)(A)2]

Operational Limitation:

The permittee shall limit the fuel sulfur content to 8,480 ppm²⁶.

²⁵ This regulation was rescinded from Missouri's Code of State Regulations on November 30, 2015 and is no longer state enforceable; however, as this regulation still appears in Missouri's State Implementation Plan this regulation is still a federally-enforceable applicable requirement and must be included in this permit.

²⁶ A sulfur content of less than or equal to this value demonstrates compliance with the emission limitation as AP-42 Table 3.4-1 (October 1996) indicates that engines of greater than 600 hp emit 1.01S lb/MMBtu SO_x, where S is the sulfur content (%). Using an F factor of 10,320 wscf/MMBtu from NSPS Appendix A Method 19 Table 19-1,

Compliance Methods:

1. The permittee shall demonstrate compliance using: [10 CSR 10-6.261(3)(E)3]
 - a) Fuel delivery records; or
 - b) Fuel sampling and analysis.

Reporting and Recordkeeping:

1. The permittee shall report any excess emissions other than startup, shutdown, and malfunction excess emissions already required to be reported under 10 CSR 10-6.050 to the Director for each calendar quarter within 30 days following the end of the quarter. In all cases, the notification shall be a written report and shall include, at a minimum, the following: [10 CSR 10-6.261(4)(A)1]
 - a) Name and location of source;
 - b) Name and telephone number of person responsible for the source;
 - c) Identity and description of the equipment involved;
 - d) Time and duration of the period of SO₂ excess emissions;
 - e) Type of activity;
 - f) Estimate of the magnitude of the SO₂ excess emissions expressed in the units of the applicable emission control regulation and the operating data and calculations used in estimating the magnitude;
 - g) Measures taken to mitigate the extent and duration of the SO₂ excess emissions; and
 - h) Measures taken to remedy the situation which caused the SO₂ excess emissions and the measures taken or planned to prevent the recurrence of these situations;
2. The permittee shall maintain a list of modifications to the source's operating procedures or other routine procedures instituted to prevent or minimize the occurrence of any excess SO₂ emissions; [10 CSR 10-6.261(4)(A)2]
3. The permittee shall maintain a record of data, calculations, results, records, and reports from any fuel deliveries, and/or fuel sampling tests. [10 CSR 10-6.261(4)(A)3]
4. If using fuel delivery records to demonstrate compliance, the permittee shall also maintain the fuel supplier certification information to certify all fuel deliveries. Bills of lading and/or other fuel delivery documentation containing the following information for all fuel purchases or deliveries are deemed acceptable: [10 CSR 10-6.261(4)(C)]
 - a) The name, address, and contact information of the fuel supplier;
 - b) The type of fuel (diesel, #2 fuel oil, etc.);
 - c) The sulfur content or maximum sulfur content expressed in percent sulfur by weight or in ppm sulfur; and
 - d) The heating value of the fuel.
5. If using fuel sampling and analysis to demonstrate compliance, the permittee shall also follow the requirements in 10 CSR 10-6.261(5)(D). [10 CSR 10-6.261(4)(D)]
6. All required reports and records shall be retained on-site for a minimum of five years and made available within five business days upon written or electronic request by the Director. [10 CSR 10-6.261(4)(F)]

7. The permittee shall furnish the Director all data necessary to determine compliance status. [10 CSR 10-6.261(4)(G)]
8. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

PERMIT CONDITION 033			
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds ²⁷			
Emission Source	Description	Capacity	Model Year
046	(3) General Motors EMD Generators	2125 HP	1966

Emission Limitation:

The permittee shall not cause or permit the emission into the atmosphere any gases containing more than 2,000 ppmv of SO₂ or more than 70 mg/m³ of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period. [10 CSR 10-6.260(3)(A)1]

Compliance Demonstration:

These engines are limited to a sulfur content of 15 ppm by §63.6604(a). The permittee is in compliance with the emission limitation as AP-42 Table 3.4-1 (October 1996) indicates that engines of greater than 600 hp emit 1.01S lb/MMBtu SO_x, where S is the sulfur content (%). Using an F factor of 10,320 wscf/MMBtu from NSPS Appendix A Method 19 Table 19-1, a conversion factor of 1.660E-7 lb/scf per ppmv from NSPS Appendix A Method 19, and the MACT ZZZZ sulfur content limit, 1.01S lb/MMBtu SO_x converts to 0.88 ppmv SO₂.

PERMIT CONDITION 034			
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds ²⁸			
Emission Source	Description	Capacity	Model Year
046	General Motors EMD Generator	2125 HP	1992
047	(2) Fermont Generators	1235 HP	1984
	(4) Fermont Generators	1235 HP	1986
048	Caterpillar DPGDS	669 HP	2002

Emission Limitation:

The permittee shall not cause or permit the emission into the atmosphere any gases containing more than 500 ppmv of SO₂ or more than 35 mg/m³ of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period. [10 CSR 10-6.260(3)(A)2]

²⁷ This regulation was rescinded from Missouri’s Code of State Regulations on November 30, 2015 and is no longer state enforceable; however, as this regulation still appears in Missouri’s State Implementation Plan this regulation is still a federally-enforceable applicable requirement and must be included in this permit.

²⁸ This regulation was rescinded from Missouri’s Code of State Regulations on November 30, 2015 and is no longer state enforceable; however, as this regulation still appears in Missouri’s State Implementation Plan this regulation is still a federally-enforceable applicable requirement and must be included in this permit.

Compliance Demonstration:

These engines are limited to a sulfur content of 15 ppm by §63.6604(a). The permittee is in compliance with the emission limitation as AP-42 Table 3.4-1 (October 1996) indicates that engines of greater than 600 hp emit 1.01S lb/MMBtu SO_x, where S is the sulfur content (%). Using an F factor of 10,320 wscf/MMBtu from NSPS Appendix A Method 19 Table 19-1, a conversion factor of 1.660E-7 lb/scf per ppmv from NSPS Appendix A Method 19, and the MACT ZZZZ sulfur content limit, 1.01S lb/MMBtu SO_x converts to 0.88 ppmv SO₂.

PERMIT CONDITION 035

10 CSR 10-6.060 Construction Permits Required
Construction Permit 0794-011, Issued July 1, 1994

Emission Source	Description
002A	Bldg 311A Kewanee Boiler, 10.25 MMBtu/hr Natural Gas with Fuel Oil #2 backup

Operational Limitation:

Special Condition 1: The permittee shall limit the consumption of fuel oil #2 by 002A Bldg 311A Kewanee Boiler to less than or equal to 1,100,000 gallons per consecutive 12-month period.

Monitoring/Recordkeeping:

1. Special Condition 2: The permittee shall maintain records of monthly and 12-month rolling total fuel oil #2 consumption by 002A Bldg 311A Kewanee Boiler using Attachment P or an equivalent form.
2. The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Special Condition 3: The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which records indicate an exceedance of the operational limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

IV. Core Permit Requirements

The installation shall comply with each of the following regulations or codes. Consult the appropriate sections in the CFR, the CSR, and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The following is only an excerpt from the regulation or code, and is provided for summary purposes only.

10 CSR 10-6.045 Open Burning Requirements

1. General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
2. Certain types of materials may be open burned provided an open burning permit is obtained from the Director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the permittee fails to comply with the conditions or any provisions of the permit.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

1. In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the Director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
2. The permittee shall submit the paragraph 1 information list to the Director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the Director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
3. Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under §643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the Director or the commission shall make a determination whether the excess

emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under §§643.080 or 643.151, RSMo.

4. Nothing in this rule shall be construed to limit the authority of the Director or commission to take appropriate action, under §§643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
5. Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than 18 months. [10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources' personnel upon request. [10 CSR 10-6.065(6)(C)3.B]

10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61, Subpart M - National Emission Standard for Asbestos

1. The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M - *National Emission Standard for Asbestos*.
2. The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information

1. The permittee shall submit full emissions report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on EIQ paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the Director.
2. The permittee may be required by the Director to file additional reports.
3. Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
4. The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079.
5. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the emissions report.
6. The permittee shall complete required reports on state supplied EIQ forms or electronically via MoEIS. Alternate methods of reporting the emissions can be submitted for approval by the Director.

The reports shall be submitted to the Director by April 1 after the end of each reporting year. If the full emissions report is filed electronically via MoEIS, this due date is extended to May 1.

7. The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the 12-month period immediately preceding the end of the reporting period.
8. The permittee shall collect, record, and maintain the information necessary to complete the required forms during each year of operation of the installation.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.165 Restriction of Emission of Odors

This is a State-Only Requirement.

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour. This odor evaluation shall be taken at a location outside of the installation's property boundary.

10 CSR 10-6.170

Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

Emission Limitation:

1. The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive PM emissions to go beyond the premises of origin in quantities that the PM may be found on surfaces beyond the property line of origin. The nature or origin of the PM shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the Director.
2. The permittee shall not cause nor allow to occur any fugitive PM emissions to remain visible in the ambient air beyond the property line of origin.
3. Should it be determined that noncompliance has occurred, the Director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
 - b) Paving or frequent cleaning of roads, driveways and parking lots;
 - c) Application of dust-free surfaces;
 - d) Application of water; and

- e) Planting and maintenance of vegetative ground cover.

Monitoring:

The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation if required by the Director. If the permittee discovers a violation, the permittee shall undertake corrective action to eliminate the violation.

Recordkeeping:

The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

1. The Director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The Director may specify testing methods to be used in accordance with good professional practice. The Director may observe the testing. All tests shall be performed by qualified personnel.
2. The Director may conduct tests of emissions of air contaminants from any source. Upon request of the Director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
3. The Director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

10 CSR 10-6.280 Compliance Monitoring Usage

1. The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, “Operating Permits”, and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the Director.
2. Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the

following methods is presumptively credible evidence of whether a violation has occurred by a permittee:

- a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
3. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
- a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - ii) 10 CSR 10-6.040, "Reference Methods";
 - iii) 10 CSR 10-6.070, "New Source Performance Standards";
 - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - b) Other testing, monitoring, or information gathering methods, if approved by the Director, that produce information comparable to that produced by any method listed above.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone
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1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in 40 CFR Part 82, Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A - Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B - Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in 40 CFR Part 82, Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in 40 CFR Part 82, Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G - Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82*

V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the CFR and CSR for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued,

10 CSR 10-6.065(6)(C)1.B Permit Duration

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

10 CSR 10-6.065(6)(C)1.C General Record Keeping and Reporting Requirements

1. Record Keeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
2. Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program's Compliance/Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) October 1st for monitoring which covers the January through June time period, and
 - ii) April 1st for monitoring which covers the July through December time period.
 - iii) Exception. Monitoring requirements which require reporting more frequently than semi-annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or 40 CFR Part 64 exceedances.
 - d) Submit supplemental reports as required or as needed. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in 10 CSR 10-6.065(6)(C)7.A shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
 - ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
 - iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in this permit, and

no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.

- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065(6)(C)1.D Risk Management Plan Under §112(r)

1. The permittee shall comply with the requirements of 40 CFR Part 68 - Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by §68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:
 - a) June 21, 1999;
 - b) Three years after the date on which a regulated substance is first listed under §68.130; or
 - c) The date on which a regulated substance is first present above a threshold quantity in a process.

10 CSR 10-6.065(6)(C)1.F Severability Clause

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

10 CSR 10-6.065(6)(C)1.G General Requirements

1. The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
2. The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
3. The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
4. This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
5. The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios

None.

10 CSR 10-6.065(6)(C)3 Compliance Requirements

1. Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
2. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an 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 that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, 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 Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
3. All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
4. The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, as well as the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and 40 CFR Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
 - c) Whether compliance was continuous or intermittent;
 - d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and

- e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065(6)(C)6 Permit Shield

1. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
 - a) The applicable requirements are included and specifically identified in this permit, or
 - b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
2. Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
 - a) The provisions of §303 of the Act or §643.090, RSMo concerning emergency orders,
 - b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
 - c) The applicable requirements of the acid rain program,
 - d) The authority of EPA and the Air Pollution Control Program to obtain information, or
 - e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

10 CSR 10-6.065(6)(C)7 Emergency Provisions

1. An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - b) That the installation was being operated properly,
 - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
2. Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

10 CSR 10-6.065(6)(C)8 Operational Flexibility

1. An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a

federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

2. Section 502(b)(10) changes. Changes that, under §502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), record keeping, reporting or compliance requirements of the permit.
 - a) Before making a change under this provision, the permittee shall provide advance written notice to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the Air Pollution Control Program as above at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the Air Pollution Control Program as soon as possible after learning of the need to make the change.
 - b) The permit shield shall not apply to these changes.

10 CSR 10-6.065(6)(C)9 Off-Permit Changes

1. Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - b) The permittee must provide contemporaneous written notice of the change to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3 of this rule. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
 - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
 - d) The permit shield shall not apply to these changes.

10 CSR 10-6.020(2)(R)34 Responsible Official

The application utilized in the preparation of this permit was signed by Susan S. Halter, Deputy Garrison Commander. On March 15, 2017, the Air Pollution Control Program was informed that Kathlene B. Aydt, Deputy Garrison Commander, is now the responsible official. If this person terminates

employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the permittee shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the permittee to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause

1. This permit may be reopened for cause if:
 - a) The Missouri Department of Natural Resources receives notice from EPA that a petition for disapproval of a permit pursuant to §70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
 - b) The Missouri Department of Natural Resources or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
 - c) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
 - i) The permit has a remaining term of less than three years;
 - ii) The effective date of the requirement is later than the date on which the permit is due to expire; or
 - iii) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
 - d) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
 - e) The Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow. Attachment D contains a list of abbreviations and acronyms used throughout this permit.

Attachment A
BMPs

Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the portable plant is operating.

1. Pavement
 - A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions²⁹ while the plant is operating.
 - B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Application of Chemical Dust Suppressants
 - A. The operator shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to unpaved areas.
 - B. The quantities of the chemical dust suppressant shall be applied and maintained in accordance with the manufacturer's recommendation (if available) and in sufficient quantities to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator shall keep these records with the plant for not less than five years and make these records available to Department of Natural Resources' personnel upon request.

3. Application of Water-Documented Daily
 - A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
 - B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
 - C. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.
 - D. The operator shall record the date and volume of water application or the amount of precipitation that day. The operators shall also record the rationale for not watering (e.g. freezing conditions or not operating).
 - E. The operator shall keep these records with the plant for not less than five years, and the operator shall make these records available to Department of Natural Resources' personnel upon request

²⁹ For purposes of this document, Control of Fugitive Emissions means to control PM that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)

Attachment D

Abbreviations and Acronyms

°Cdegrees Celsius	m/s meters per second
°F degrees Fahrenheit	mgmilligrams
AAQIA ambient air quality impact analysis	Mgal 1,000 gallons
acfm actual cubic feet per minute	MW megawatt
BACT Best Available Control Technology	MHDR maximum hourly design rate
BMPs Best Management Practices	MMBtu Million British thermal units
Btu British thermal unit	mmHgmillimeters mercury
CAM Compliance Assurance Monitoring	MMscf Million standard cubic feet
CAS Chemical Abstracts Service	MSDS Material Safety Data Sheet
CEMS Continuous Emission Monitor System	NAAQS National Ambient Air Quality Standards
CFR Code of Federal Regulations	NESHAPs National Emissions Standards for Hazardous Air Pollutants
CO carbon monoxide	NO_x nitrogen oxides
CO₂ carbon dioxide	NSPS New Source Performance Standards
CO₂e carbon dioxide equivalent	NSR New Source Review
COMS Continuous Opacity Monitoring System	PM particulate matter
CSR Code of State Regulations	PM_{2.5} particulate matter less than 2.5 microns in aerodynamic diameter
dscf dry standard cubic feet	PM₁₀ particulate matter less than 10 microns in aerodynamic diameter
dscmdry standard cubic meter	ppm parts per million
EIQ Emission Inventory Questionnaire	PSD Prevention of Significant Deterioration
EP Emission Point	psipounds per square inch
EPA Environmental Protection Agency	PTE potential to emit
EU Emission Unit	RACT Reasonable Available Control Technology
FGD flue gas desulfurization	RAL Risk Assessment Level
FIREEPA's Factor Information Retrieval System	SCC Source Classification Code
fps feet per second	scfm standard cubic feet per minute
ft feet	SCR selective catalytic reduction
GACT Generally Available Control Technology	SIC Standard Industrial Classification
GHG Greenhouse Gas	SIP State Implementation Plan
gpm gallons per minute	SMAL Screening Model Action Levels
gr grains	SO_x sulfur oxides
GWP Global Warming Potential	SO₂ sulfur dioxide
HAP Hazardous Air Pollutant	tph tons per hour
hr hour	tpy tons per year
HP horsepower	VMT vehicle miles traveled
lb pound	VOC Volatile Organic Compound
lb/hr pounds per hour	
MACT Maximum Achievable Control Technology	
µg/m³ micrograms per cubic meter	

Attachment G
 Construction Permit 0995-017B PM₁₀ Limit

Date (Month/Year)	Monthly Rock Production (tons)	Composite PM ₁₀ Emission Factor ⁴¹ (lb/ton)	Monthly PM ₁₀ Emissions ⁴² (tons)	12-Month Rolling Total PM ₁₀ Emissions ⁴³ (tons)
		0.11908		
		0.11908		
		0.11908		
		0.11908		
		0.11908		
		0.11908		

⁴¹ This is a composite emission factor calculated specifically by Construction Permit 0995-017B to easily demonstrate compliance with the emission limit. The composite emission factor was calculated using the rock crushing plants maximum hourly design rate of 150 tph and the following individual PM₁₀ emission factors:

Emission Unit	PM ₁₀ Emission Factor	Emission Factor Source
023	2.7786 lb/VMT	Equation 1a of AP-42 Section 13.2.2, a silt content of 10%, an average vehicle weight of 17 tons
023A	0.011991 lb/ton	Equation 1 from AP-42 Section 13.2.4, a moisture content of 0.7% and a wind speed of 10 mph
	2.7786 lb/VMT	Equation 1a of AP-42 Section 13.2.2, a silt content of 10%, an average vehicle weight of 17 tons
	0.089166 lb/acre-hr	Equation 1 from AP-42 Section 13.2.4, a silt content of 1.6%, 260 dry days per year, and wind speed > 12 mph 32% of the time
023B	0.00008 lb/ton	FIRE Process SCC 30502010
EU0001	0.0001 lb/ton Loading	Uncontrolled FIRE Process SCC 30502032
EU0011	0.000016 lb/ton Unloading	Uncontrolled FIRE Process SCC 30502031
EU0002	0.00074 lb/ton	Uncontrolled FIRE Process SCC 30502002
EU0006		
EU0008		
EU0003	0.00074 lb/ton	Controlled FIRE Process SCC 30502003
EU0010		
EU0004		
EU0005	0.000046 lb/ton	Controlled FIRE Process SCC 30502006
EU0007		
EU0009		
Q631P, Q631Q, Q631R, EU0014, EU0015, EU0016, & EU0017	0.0022 lb/HP-hr	AP-42 Table 3.3-1
023J	2.34961 lb/VMT	Equation 1a of AP-42 Section 13.2.2, a silt content of 8.3%, an average vehicle weight of 17 tons

⁴² Monthly PM₁₀ Emissions (tons) = Monthly Rock Production (tons) x Composite PM₁₀ Emission Factor (lb/ton) x 0.0005 ton/lb.

⁴³ 12-Month Rolling Total PM₁₀ Emissions (tons) = the sum of the 12 most recent Monthly PM₁₀ Emissions (tons) + the sum of all start-up, shutdown, and malfunction PM₁₀ emissions from this rock crushing plant as reported to the Air Pollution Control Program's Compliance/Enforcement Section in accordance with 10 CSR 10-6.050 during the same 12 month period. **12-Month Rolling Total PM₁₀ Emissions of less than 13.0 tons indicates compliance with Permit Condition 005.**

Attachment H

Construction Permit 092008-001 NO_x Limit

Date (Month/Year):

Emission Source	Description	Non-Resetable Meter Reading		Monthly Usage ⁴⁴ (hours)	NO _x Emission Rate ⁴⁵ (lb/hr)	Monthly NO _x Emissions ⁴⁶ (tons)
		Last Month (hours)	This Month (hours)			
046	General Motors EMD Generator #1				48.288	-
	General Motors EMD Generator #2					-
	General Motors EMD Generator #3					-
	General Motors EMD Generator #4					-
047	Fermont Generator #1				24.144	-
	Fermont Generator #2					-
	Fermont Generator #3					-
	Fermont Generator #4					-
	Fermont Generator #5					-
	Fermont Generator #6					-
048	Caterpillar DPGDS Generator #1				27.024	-
	Caterpillar DPGDS Generator #2					-
	Caterpillar DPGDS Generator #3					-
	Caterpillar DPGDS Generator #4					-
	Caterpillar DPGDS Generator #5					-
	Caterpillar DPGDS Generator #6					-
	Caterpillar DPGDS Generator #7					-
Prime Power School Fuel Sources		Quantity of Fuel at the end of previous month (gallons)	Quantity Fuel Added during the month (gallons)	Quantity of Fuel at the end of this month (gallons)	Monthly Fuel consumed ⁴⁷ (gallons)	Monthly NO _x Emissions ⁴⁸ (tons)
12630-A1	5,000 gallon Prime Power School Diesel Tank					
12630-A2	5,000 gallon Prime Power School Diesel Tank					
Total Monthly NO_x Emissions⁴⁹ (tons):						
12-Month Rolling Total NO_x Emissions⁵⁰ (tons):						

⁴⁴ Monthly Usage (hours) = Non-Resetable Meter Reading This Month (hours) – Non-Resetable Meter Reading Last Month (hours)

⁴⁵ The NO_x Emission Rate (lb/hr) was calculated using the MHDR of each generator (HP) multiplied by the NO_x emission factor from AP-42 Table 3.4-1 of 0.024 lb/HP-hr.

⁴⁶ The installation chooses to track NO_x emissions by the quantity of fuel combusted rather than by the hours of operation.

⁴⁷ Monthly Fuel Consumed (gallons) = Quantity of Fuel at the end of the previous month (gallons) + Quantity of Fuel Added during the month (gallons) – Quantity of Fuel at the end of this month (gallons).

⁴⁸ Monthly NO_x Emissions (tons) = Monthly Fuel Consumed (gallons) / 1000 (gal/Mgal) x 438 (lb/Mgal from FIRE 20200401) x 0.0005 (ton/lb).

⁴⁹ Total Monthly NO_x Emissions (tons) = The sum of Monthly NO_x Emissions (tons) from both diesel tanks.

⁵⁰ 12-Month Rolling Total NO_x Emissions (tons) = The sum of the 12 most recent Total Monthly NO_x Emissions (tons) + the sum of all start-up, shutdown, and malfunction NO_x emissions from these generators as reported to the Air Pollution Control Program’s Compliance/Enforcement Section in accordance with 10 CSR 10-6.050 during the same 12 month period. **12-Month Rolling Total NO_x Emissions of less than 40.0 tons per year indicates compliance with Permit Condition 006.**

Attachment I

Boilers, Hot Water Heaters, and Space Heaters NO_x Limit

Date (Month/Year):

Emission Source & Description	Monthly Usage	NO_x Emission Factor	Emission Factor Source	Monthly NO_x Emissions⁵¹ (tons)
Natural Gas Combustion in Boilers, Hot Water Heaters, & Space Heaters	MMscf	100 lb/MMscf	AP-42 Table 1.4-1	
Propane Combustion in Boilers, Hot Water Heaters, & Space Heaters	Mgal	13 lb/Mgal	AP-42 Table 1.5-1	
Fuel Oil #2 Combustion in Boilers, Hot Water Heaters, & Space Heaters	Mgal	20 lb/Mgal	AP-42 Table 1.3-1	
Total Monthly NO_x Emissions⁵² (tons):				
12-Month Rolling Total NO_x Emissions⁵³ (tons):				

⁵¹ Monthly NO_x Emissions (tons) = Monthly Usage x NO_x Emission Factor x 0.0005 (ton/lb).

⁵² Total Monthly NO_x Emissions (tons) = The sum of each emission source's Monthly NO_x Emissions (tons).

⁵³ 12-Month Rolling Total NO_x Emissions (tons) = The sum of the 12 most recent Total Monthly NO_x Emissions (tons) + the sum of all start-up, shutdown, and malfunction NO_x emissions from boilers, hot water heaters, and space heaters as reported to the Air Pollution Control Program's Compliance/Enforcement Section in accordance with 10 CSR 10-6.050 during the same 12 month period. **12-Month Rolling Total NO_x Emissions of less than 55.0 tons per year indicates compliance with Permit Condition 007.**

Attachment J
 Boilers, Hot Water Heaters, and Space Heaters SO_x Limit

Date (Month/Year):

Emission Source & Description	Monthly Usage	SO_x Emission Factor	Emission Factor Source	Monthly SO_x Emissions⁵⁴ (tons)
Natural Gas Combustion in Boilers, Hot Water Heaters, & Space Heaters	MMscf	0.6 lb/MMscf	AP-42 Table 1.4-1	
Fuel Oil #2 Combustion in Boilers, Hot Water Heaters, & Space Heaters	Mgal	142S ⁵⁵ lb/Mgal	AP-42 Table 1.3-1	
Total Monthly SO_x Emissions⁵⁶ (tons):				
12-Month Rolling Total SO_x Emissions⁵⁷ (tons):				

⁵⁴ Monthly SO_x Emissions (tons) = Monthly Usage x SO_x Emission Factor x 0.0005 (ton/lb).

⁵⁵ Where S is the sulfur content of the fuel oil which shall be obtained from the fuel receipts required to demonstrate compliance with 10 CSR 10-6.261. If multiple fuel oil shipments were received during the calendar month use the highest sulfur content from the shipments to demonstrate compliance.

⁵⁶ Total Monthly SO_x Emissions (tons) = The sum of each emission source's Monthly SO_x Emissions (tons).

⁵⁷ 12-Month Rolling Total SO_x Emissions (tons) = The sum of the 12 most recent Total Monthly SO_x Emissions (tons) + the sum of all start-up, shutdown, and malfunction SO_x emissions from boilers, hot water heaters, and space heaters as reported to the Air Pollution Control Program's Compliance/Enforcement Section in accordance with 10 CSR 10-6.050 during the same 12 month period. **12-Month Rolling Total SO_x Emissions of less than 55.0 tons per year indicates compliance with Permit Condition 007.**

Attachment K
 HAP Emission Factors

This Attachment contains approved HAP emission factors for use in complying with Attachment(s) L.

Boilers, Water Heaters, and Space Heaters

The permittee shall monitor and record the amount of natural gas and fuel oil #2 combusted by all boilers, water heaters, and space heaters each month and use the following emission factors to determine monthly and 12-month rolling total emissions of each individual HAP in Attachment(s) L:

Natural Gas Combustion Emission Factors From AP-42 Tables 1.4-3 & 1.4-4:

CAS No.	Individual HAP Name	Emission Factor (lb/MMscf)
TP15	Polycyclic Organic Matter	8.82×10^{-5}
71-43-2	Benzene	0.0021
106-46-7	Dichlorobenzene	0.0012
50-00-0	Formaldehyde	0.075
110-54-3	Hexane	1.8
91-20-3	Naphthalene	6.1×10^{-4}
108-88-3	Toluene	0.0034
20-01-9	Arsenic Compounds	2.0×10^{-4}
20-03-1	Beryllium Compounds	1.2×10^{-5}
20-04-2	Cadmium Compounds	0.0011
20-06-4	Chromium Compounds	0.0014
20-07-5	Cobalt Compounds	8.4×10^{-5}
20-11-1	Lead Compounds	5.0×10^{-4}
20-12-2	Manganese Compounds	3.8×10^{-4}
20-13-3	Mercury Compounds	2.6×10^{-4}
20-14-4	Nickel Compounds	0.0021
20-16-6	Selenium Compounds	2.4×10^{-5}

Fuel Oil #2 Combustion Emission Factors From AP-42 Tables 1.3-8 & 1.3-10, assuming a fuel heat content of 140 Btu/gal:

CAS No.	Individual HAP Name	Emission Factor (lb/1,000 gallons)
TP15	Polycyclic Organic Matter	0.0033
50-00-0	Formaldehyde	0.061
20-01-9	Arsenic Compounds	5.6×10^{-7}
20-03-1	Beryllium Compounds	4.2×10^{-7}
20-04-2	Cadmium Compounds	4.2×10^{-7}
20-06-4	Chromium Compounds	4.2×10^{-7}
20-11-1	Lead Compounds	1.26×10^{-6}
20-12-2	Manganese Compounds	8.4×10^{-7}
20-13-3	Mercury Compounds	4.2×10^{-7}
20-14-4	Nickel Compounds	4.2×10^{-7}
20-16-6	Selenium Compounds	2.1×10^{-6}

Generators & Engines

The permittee shall monitor and record the monthly hours of operation of all generators and engines and use the following emission factors to determine monthly and 12-month rolling total emissions of each individual HAP in Attachment(s) L:

Diesel Combustion Emission Factors for Generators and Engines less than 600 HP in size From AP-42 Table 3.3-2, assuming 7,000 Btu/HP-hr:

CAS No.	Individual HAP Name	Emission Factor (lb/HP-hr) ⁵⁸
TP15	Polycyclic Organic Matter	5.824×10^{-7}
71-43-2	Benzene	6.531×10^{-6}
50-00-0	Formaldehyde	8.26×10^{-6}
91-20-3	Naphthalene	5.936×10^{-7}
108-88-3	Toluene	2.863×10^{-6}
1330-20-7	Xylene	1.995×10^{-6}
106-99-0	1,3-Butadiene	2.737×10^{-7}
75-07-0	Acetaldehyde	5.369×10^{-6}
107-02-8	Acrolein	6.475×10^{-7}

Diesel Combustion Emission Factors for Generators and Engines greater than 600 HP in size From AP-42 Table 3.4-3 and 3.4-4, assuming 7,000 Btu/HP-hr:

CAS No.	Individual HAP Name	Emission Factor (lb/HP-hr) ⁵⁹
TP15	Polycyclic Organic Matter	5.74×10^{-7}
71-43-2	Benzene	5.432×10^{-6}
50-00-0	Formaldehyde	5.523×10^{-7}
91-20-3	Naphthalene	9.1×10^{-7}
108-88-3	Toluene	1.967×10^{-6}
1330-20-7	Xylene	1.351×10^{-6}
75-07-0	Acetaldehyde	1.764×10^{-7}
107-02-8	Acrolein	5.516×10^{-8}

Natural Gas Combustion Emission Factor for 4-stroke lean-burn Generators and Engines From AP-42 Table 3.2-2:

CAS No.	Individual HAP Name	Emission Factor (lb/MMBtu)
TP15	Polycyclic Organic Matter	2.69×10^{-5}
71-43-2	Benzene	4.4×10^{-4}
50-00-0	Formaldehyde	0.0528
110-54-3	Hexane	0.00111
91-20-3	Naphthalene	7.44×10^{-5}
108-88-3	Toluene	4.08×10^{-4}
79-34-5	1,1,2,2-Tetrachloroethane	4×10^{-5}
79-00-5	1,1,2-Trichloroethane	3.18×10^{-5}
106-99-0	1,3-Butadiene	2.67×10^{-4}
542-75-6	1,3-Dichloropropene	2.64×10^{-5}
540-84-1	2,2,4-Trimethylpentane	2.5×10^{-4}
75-07-0	Acetaldehyde	0.00836
107-02-8	Acrolein	0.00514
92-52-4	Biphenyl	2.12×10^{-4}
56-23-5	Carbon Tetrachloride	3.67×10^{-5}
108-90-7	Chlorobenzene	3.04×10^{-5}
67-66-3	Chloroform	2.85×10^{-5}
100-41-4	Ethylbenzene	3.97×10^{-5}
106-93-4	Ethylene Dibromide	4.43×10^{-5}

⁵⁸ HP-hr are determined for each generator/engine by taking the size of the engine (HP) and multiplying by the hours of operation (hr).

⁵⁹ HP-hr are determined for each generator/engine by taking the size of the engine (HP) and multiplying by the hours of operation (hr).

CAS No.	Individual HAP Name	Emission Factor (lb/MMBtu)
67-56-1	Methanol	0.0025
75-09-2	Methylene Chloride	2×10^{-5}
108-95-2	Phenol	2.4×10^{-5}
100-42-5	Styrene	2.36×10^{-5}
75-01-4	Vinyl Chloride	1.49×10^{-5}
1330-20-7	Xylene	1.84×10^{-4}

Natural Gas Combustion Emission Factor for 4-stroke rich-burn Generators and Engines From AP-42 Table 3.2-3:

CAS No.	Individual HAP Name	Emission Factor (lb/MMBtu)
TP15	Polycyclic Organic Matter	1.41×10^{-4}
71-43-2	Benzene	0.00158
50-00-0	Formaldehyde	0.0205
91-20-3	Naphthalene	9.71×10^{-5}
108-88-3	Toluene	5.58×10^{-4}
79-34-5	1,1,2,2-Tetrachloroethane	2.53×10^{-5}
79-00-5	1,1,2-Trichloroethane	1.53×10^{-5}
106-99-0	1,3-Butadiene	6.63×10^{-4}
542-75-6	1,3-Dichloropropene	1.27×10^{-5}
75-07-0	Acetaldehyde	0.00279
107-02-8	Acrolein	0.00263
56-23-5	Carbon Tetrachloride	1.77×10^{-5}
108-90-7	Chlorobenzene	1.29×10^{-5}
67-66-3	Chloroform	1.37×10^{-5}
100-41-4	Ethylbenzene	2.48×10^{-5}
106-93-4	Ethylene Dibromide	2.13×10^{-5}
67-56-1	Methanol	0.00306
75-09-2	Methylene Chloride	4.12×10^{-5}
100-42-5	Styrene	1.19×10^{-5}
75-01-4	Vinyl Chloride	7.18×10^{-6}
1330-20-7	Xylene	1.95×10^{-4}

Tanks

The permittee shall monitor and record the total monthly working throughput of all biodiesel, diesel/used oil/waste oil/heating oil/fresh oil/oil/boiler fuel, biodiesel, gasoline/E85, and JP8/JAA in all of the tanks at the installation and use the following emission factors to determine monthly and 12-month rolling total working loss emissions of each individual HAP in Attachment(s) L:

Working Loss Emission Factors from TANKS4.0.9d:

Material	CAS No.	Individual HAP Name	Emission Factor (lb/1,000 gallons)
Biodiesel	1330-20-7	Xylene	0.004
	91-20-3	Naphthalene	0.0002
Diesel/Used Oil/Waste Oil/ Heating Oil/Fresh Oil/Oil/Boiler Fuel	1330-20-7	Xylene	0.02
	108-05-4	Vinyl Acetate	0.01
	91-20-3	Naphthalene	0.002
	100-41-4	Ethylbenzene	0.02
	71-43-2	Benzene	0.36
	108-88-3	Toluene	0.05
	100-42-5	Styrene	0.01

Material	CAS No.	Individual HAP Name	Emission Factor (lb/1,000 gallons)
Gasoline/E85	71-43-2	Benzene	0.073
	100-41-4	Ethylbenzene	0.004
	108-88-3	Toluene	0.075
	1330-20-7	Xylene	0.02
JP8/JAA/F24	1330-20-7	Xylene	0.001

Given the contents and capacities of each tank listed in this permit the potential monthly breathing losses were calculated. Use the following monthly breathing losses to determine monthly and 12-month rolling total breathing loss emissions of each individual HAP from all of the tanks at the installation in Attachment(s) L:

Breathing Loss Potential Monthly Emissions from TANKS4.0.9d:

Material	CAS No.	Individual HAP Name	Monthly Breathing Losses (tons)
Biodiesel	1330-20-7	Xylene	0.00002
Diesel/Used Oil/Waste Oil/ Heating Oil/Fresh Oil/Oil/Boiler Fuel	1330-20-7	Xylene	0.003
	108-05-4	Vinyl Acetate	0.002
	100-41-4	Ethylbenzene	0.003
	71-43-2	Benzene	0.05
	108-88-3	Toluene	0.007
	100-42-5	Styrene	0.001
Gasoline/E85	71-43-2	Benzene	0.008
	100-41-4	Ethylbenzene	0.0004
	108-88-3	Toluene	0.008
	1330-20-7	Xylene	0.002

Asphalt

The permittee shall monitor and record the monthly amount of asphalt produced and use the following emission factors to determine monthly and 12-month rolling total emissions of each individual HAP in Attachment(s) L:

Asphalt Emission Factors from AP-42 Tables 1.3-8, 1.3-10, 11.1-10, 11.1-14, 11.1-15, and 11.1-16:

CAS No.	Individual HAP Name	Drum Dryer Emission Factor (lb/ton)	Silo Filling (lb/ton) ⁶⁰	Asphalt Heater ⁶¹ (lb/ton)
TP15	Polycyclic Organic Matter	8.8×10^{-4}	2.8943×10^{-5}	2.6301×10^{-7}
71-43-2	Benzene	3.9×10^{-4}	8.1245×10^{-8}	-
74-83-9	Bromomethane	-	1.2441×10^{-8}	-
78-93-3	2-Butanone	-	9.9017×10^{-8}	-
75-15-0	Carbon Disulfide	-	4.0622×10^{-8}	-
75-00-3	Chloroethane	-	1.0156×10^{-8}	-
74-87-3	Chloromethane	-	5.8395×10^{-8}	-
100-41-4	Ethylbenzene	2.4×10^{-4}	9.6478×10^{-8}	-
50-00-0	Formaldehyde	0.0031	1.7518×10^{-8}	4.8617×10^{-6}
110-54-3	Hexane	9.2×10^{-4}	2.5389×10^{-7}	-
540-84-1	2,2,4-Trimethylpentane	4×10^{-5}	7.8706×10^{-10}	-

⁶⁰ Assuming an asphalt volatility of -0.5 and an HMA mix temperature of 325°F.

⁶¹ The emission factors in AP-42 Tables 1.3-8 and 1.3-10 were converted to lb/ton using the MHDR of the heater (0.01594 Mgal/hr) and the MHDR of asphalt production (200 tph).

CAS No.	Individual HAP Name	Drum Dryer Emission Factor (lb/ton)	Silo Filling (lb/ton) ⁶⁰	Asphalt Heater ⁶¹ (lb/ton)
75-09-2	Methylene Chloride	-	6.8550×10^{-10}	-
100-42-5	Styrene	-	1.3710×10^{-8}	-
108-88-3	Toluene	0.0029	1.5741×10^{-7}	-
91-20-3	Naphthalene	6.5×10^{-4}	-	-
71-55-6	Methyl Chloroform	4.8×10^{-5}	-	-
1330-20-7	Xylene	2×10^{-4}	6.525×10^{-7}	-
20-01-9	Arsenic Compounds	-	-	4.4632×10^{-11}
20-03-1	Beryllium Compounds	-	-	3.3474×10^{-11}
20-04-2	Cadmium Compounds	-	-	3.3474×10^{-11}
20-06-4	Chromium Compounds	-	-	3.3474×10^{-11}
20-11-1	Lead Compounds	-	-	1.0042×10^{-10}
20-12-2	Manganese Compounds	-	-	6.6948×10^{-11}
20-13-3	Mercury Compounds	-	-	3.3474×10^{-11}
20-14-4	Nickel Compounds	-	-	3.3474×10^{-11}
20-16-6	Selenium Compounds	-	-	1.6737×10^{-10}

Parts Washers

The permittee shall not use any cleaning solvents which contain HAP. The permittee shall maintain SDS for all cleaning solvents used in the parts washers to demonstrate compliance.

Paint Booths:

The permittee shall maintain records of monthly usage of each material used within Bldg 5265 Furniture Paint Booth, Bldg 5265/5266 Vehicle Paint Booths, and Bldg 5138 Paint Booth. The permittee shall maintain SDS for each material used within the specified paint booths. Emission factors for each individual HAP for use in Attachment(s) L shall be determined using the following calculation methodology (note: make additional copies of the following table as necessary in order to list each material and calculate each individual HAP emission factor):

Attachment L
 Individual HAP Tracking Sheet

The permittee shall complete an Attachment L for each individual HAP identified in Attachment K.

HAP Name:	CAS No.:	Date(Month/Year):		
Emission Source	Description⁶⁶	Monthly Usage⁶⁷	Emission Factor⁶⁸	Monthly Emissions⁶⁹ (tons)
Boilers, Water Heaters, and Space Heaters	Natural Gas Combustion	MMscf	lb/MMscf	
	Fuel Oil #2 Combustion	1,000 gal	lb/1,000 gal	
Generators and Engines	Diesel Combustion, less than 600 HP in size	HP-hr	lb/HP-hr	
	Diesel Combustion, greater than 600 HP in size	HP-hr	lb/HP-hr	
	Natural Gas Combustion, 2-stroke lean-burn	MMBtu	lb/MMBtu	
	Natural Gas Combustion, 4-stroke lean-burn	MMBtu	lb/MMBtu	
	Natural Gas Combustion, 4-stroke rich-burn	MMBtu	lb/MMBtu	
Tanks	Biodiesel Working Losses	1,000 gal	1,000 gal	
	Diesel/Used Oil/Waste Oil/Heating Oil/Fresh Oil/Oil/Boiler Fuel Working Losses	1,000 gal	1,000 gal	
	Gasoline/E85 Working Losses	1,000 gal	1,000 gal	
	JP8/JAA Working Losses	1,000 gal	1,000 gal	
	Biodiesel Breathing Losses			
	Diesel/Used Oil/Waste Oil/Heating Oil/Fresh Oil/Oil/Boiler Fuel Breathing Losses			
	Gasoline/E85 Breathing Losses			

⁶⁶ In the empty lines provided for paint booths, add all materials containing this individual HAP that were used in the paint booths. Add additional lines as necessary.

⁶⁷ The monthly usage of natural gas in generators and engines is the sum of the hours of operation x capacity (MMBtu/hr) for each generator.

⁶⁸ Obtain the emission factor for this individual HAP for each emission source from Attachment K. If no emission factor is identified for this specific individual HAP in Attachment K, then use 0.

⁶⁹ Monthly Emissions (tons) = Monthly Usage x Emission Factor x 0.0005, except for tank breathing losses. Tank breathing losses are obtained from Attachment K.

Asphalt Plant	Drum Dryer	tons	lb/ton		
	Silo Filling	tons	lb/ton		
	Asphalt Heater	tons	lb/ton		
Paint Booths		gal	lb/gal		
		gal	lb/gal		
		gal	lb/gal		
		gal	lb/gal		
		gal	lb/gal		
		gal	lb/gal		
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		gal	lb/gal		
		gal	lb/gal		
		gal	lb/gal		
	Installation Monthly Emissions⁷⁰ (tons):				
	Installation 12-Month Rolling Total Emissions⁷¹ (tons):				

⁷⁰ Installation Monthly Emissions (tons) = The sum of the Monthly Emissions (tons) from each emission source.

⁷¹ Installation 12-Month Rolling Total Emissions (tons) = The sum of the 12 most recent Installation Monthly Emissions (tons) of this specific individual HAP + the sum of all start-up, shutdown, and malfunction emissions of this specific individual HAP reported to the Air Pollution Control Program's Compliance/Enforcement Section in accordance with 10 CSR 10-6.050 during the same 12 month period. **Installation 12-Month Rolling Total Emissions of less than 10.0 tons of the specified individual HAP indicates compliance with Permit Condition PW002.**

Attachment N
 Construction Permit 052001-011 VOC Limit

Date (Month/Year):

Emission Source	Description	Contents	Monthly Usage (1,000 gal)	Working Loss Emission Factor ⁷³ (lb/1,000 gal)	Monthly Breathing Losses ⁷⁴ (tons)	Total Monthly VOC Emissions ⁷⁵ (tons)
5138-A1	Reserve Center ECS	Diesel		0.48	0.00041	
5138-A2	Reserve Center ECS	Diesel		0.48	0.00206	
311	Underground Storage Tank	Diesel		0.48	0	
2210-A3	TFW Compound	Diesel		0.48	0.00206	
2210-A4	TFW Compound	Diesel		0.48	0.00021	
5465-A1	TA 401 Fog Oil Training	Diesel		0.48	0.00010	
5465-A2	TA 401 Fog Oil Training	Diesel		0.48	0.0010	
987-A1	900 Motor Pool	Diesel		0.48	0.00206	
987-A2	900 Motor Pool	Diesel		0.48	0.00206	
5021-A1	Airport Tank	JP8/JAA/F24		0.03	0.00010	
5021-A2	Airport Tank	JP8/JAA/F24		0.03	0.00010	
5021-A3	Airport Tank	JP8/JAA/F24		0.03	0.00010	
5158-A1	TA 207 Fire Training Area Tank	Diesel		0.48	0.00021	
5267-A1	Transportation Motor Pool Tank	E85		7.39	0.07164	
5267-A2	Transportation Motor Pool Tank	Gasoline		7.39	0.07164	
5267-A3	Transportation Motor Pool Tank	Diesel		0.48	0.00247	
5267-A4	Transportation Motor Pool Tank	Diesel		0.48	0.00247	
Monthly Construction Permit 052001-011 VOC Emissions⁷⁶ (tons):						
12-Month Rolling Total Construction Permit 052001-011 VOC Emissions⁷⁷ (tons):						

⁷³ Working Loss Emission Factors obtained from TANKS4.0.9d.

⁷⁴ Monthly Breathing Losses is an average value calculated as the annual breathing losses divided by 12 months per year. The annual breathing losses were obtained from TANKS4.0.9d.

⁷⁵ Total Monthly VOC Emissions (tons) = Monthly Usage (1,000 gal) x Working Loss Emission Factor (lb/1,000 gal) x 0.0005 (ton/lb) + Monthly Breathing Losses (tons).

⁷⁶ Monthly Construction Permit 052001-011 VOC Emissions (tons) = The sum of each tank's Total VOC Emissions (tons).

⁷⁷ 12-Month Rolling Total Construction Permit 052001-011 VOC Emissions (tons) = The sum of the 12 most recent Monthly Construction Permit 052001-011 VOC Emissions + the sum of all start-up, shutdown, and malfunction VOC emissions from the listed tanks as reported to the Air Pollution Control Program's Compliance/Enforcement Section in accordance with 10 CSR 10-6.050 during the same 12 month period. **12-Month Rolling Total Construction Permit 052001-011 VOC emissions of less than 25.0 tons indicates compliance with Permit Condition 008.**

Attachment O
 Method 9 Opacity Observations

Method 9 Opacity Emissions Observations								
Company					Observer			
Location					Observer Certification Date			
Date					Emission Unit			
Time					Control Device			
Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
SUMMARY OF AVERAGE OPACITY								
Set Number	Time				Opacity			
	Start	End	Sum	Average				

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation? _____
 YES NO Signature of Observer _____

Attachment P

Construction Permit 0794-011 Fuel Oil Tracking Sheet

Date (Month/Year)	Monthly Fuel Oil #2 Consumption by 002A Bldg 311A Kewanee Boiler (gallons)	12-Month Rolling Total Fuel Oil #2 Consumption by 002A Bldg 311A Kewanee Boiler⁷⁸ (gallons)

⁷⁸ 12-Month Rolling Total Fuel Oil #2 Consumption by 002A Bldg 311A Kewanee Boiler (gallons) = the sum of the 12 most recent Monthly Fuel Oil #2 Consumption by 002A Bldg 311A Kewanee Boiler (gallons). **12-Month Rolling Total Fuel Oil #2 Consumption of less than or equal to 1,100,000 gallons indicates compliance with Permit Condition 035.**

STATEMENT OF BASIS

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

1. Part 70 Operating Permit Application, received June 29, 2010
2. 2014, 2013, 2012, 2011, and 2010 Emissions Inventory Questionnaires
3. U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition
4. WebFIRE: <http://cfpub.epa.gov/webfire/index.cfm?action=fire.SearchEmissionFactors>
5. Construction Permits 032015-007, 012015-001, 062003-015A, 052013-012, 0995-017B, 072009-012, 042009-006, 092008-001, 082002-024D, 072003-022A, 062003-005, 052000-004A, 022002-009, 052001-011, 052001-010, 082000-006, 0999-015, 0899-027, 0699-022, 0495-013A, 0897-013, 0590-004A, 0794-011, 0392-011, 0891-003, 0983-019, 0979-030, 0879-002, 0879-010, 0879-011, and 0179-006 through 0179-016
6. 9/23/2009, 5/6/2009, 9/18/2006, 6/18/2004, 10/9/2002, 1/14/2002, 2/27/2001, 12/15/2000, 10/16/2000, 9/20/2000, and 4/20/2000 No Construction Permit Required Determinations

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

10 CSR 10-6.100 *Alternate Emission Limits* is not applicable to the installation and has not been applied in this permit. The installation does not meet the applicability requirements of this regulation as the installation is located in an ozone attainment area.

10 CSR 10-6.390 *Control of NO_x Emissions From Large Stationary Internal Combustion Engines* is not applicable to the installation and has not been applied in this permit. The installation is located in Pulaski county which is not one of the affected counties in 10 CSR 10-6.390(1).

10 CSR 10-6.405 *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating* is not applicable to the installation and has not been applied in this permit. Installations which are fueled only by propane, natural gas, and fuel oil #2 with less than 1.2% sulfur are exempt per 10 CSR 10-6.405(1)(E).

Construction Permit History

Construction Permit 032015-007A, Issued May 11, 2016:

- ◆ This amendment adds to diesel generators to the asphalt plant in Construction Permit 032015-007.
- ◆ Special Condition 1 states that the conditions of this amendment supersede Special Conditions 2 and 4 of Construction Permit 032015-007.

Construction Permit 032015-007, Issued March 6, 2015:

- ◆ This Section (5) NSR Permit is for the installation of a new 200 tph asphalt plant which will replace the existing asphalt plant permitted by Construction Permit 022002-009. The new asphalt plant will be located at Training Area 256.
- ◆ Special Conditions 1, 3, 5, 6, and 7 have been applied in Permit Condition 001.
- ◆ Special Conditions 2 and 4 were superseded by Construction Permit 032015-007A.
- ◆ Construction of the new asphalt plant has begun; however, start-up has not yet occurred.

Construction Permit 012015-001, Issued January 16, 2015:

- ◆ This Section (5) NSR Permit is for the installation of a new 0.5 gal/hr spray coating operation. In an e-mail dated February 24, 2016, the installation informed the Air Pollution Control Program that they will not construct this coating operation; therefore, Special Conditions 2.B, 3, and 4 which apply solely to the spray coating operation have not been included in this permit.
- ◆ Special Condition 1 states that the conditions of this permit supersede those of Special Condition 2 in Construction Permit 052001-010.
- ◆ Special Conditions 2.A, 2.C, and 5 have been applied in Permit Condition 002.

Construction Permit 062003-015A, Issued July 18, 2013:

- ◆ Amendment A changes GEN962 non-emergency to emergency (note: GEN962 is referred to as 003KK in the installation's EIQ).
- ◆ Special Condition 1 states that the conditions of this amendment supersede all special conditions found in Construction Permit 062003-015.
- ◆ Special Condition 2 has been applied in Permit Condition 003.

Construction Permit 052013-012, Issued May 23, 2013:

- ◆ This Section (5) NSR Permit is for the installation of EP-002BB a 25.25 MMBtu/hr natural gas or fuel oil #2 fired boiler.
- ◆ Special Conditions 1 and 2 have been applied in Permit Condition 004.

Construction Permit 0995-017B, Issued March 8, 2013:

- ◆ Amendment B removes the daily PM₁₀ emission limit from Construction Permit 0995-017A.
- ◆ Special Condition 1 states that the conditions of this permit supersede all special conditions in Construction Permit 0995-017A.
- ◆ Special Conditions 2 through 5 have been applied in Permit Condition 005.

No Construction Permit Required Determination, Issued September 23, 2009:

- ◆ This no construction permit required determination allows the installation to use a fabric filter to control emissions from Bldg 5265 Furniture Paint Booth (emission unit 8) instead of a water curtain. The determination is based on the fact that the water curtain was not a federally enforceable control device (i.e. no permit required it to be operated). The permittee has accepted a voluntary condition in this permit so that the fabric filter is a federally enforceable control device (see Permit Condition 027).

Construction Permit 072009-012, Issued July 21, 2009:

- ◆ This is a temporary permit for the operation of three generators. This temporary permit expired February 20, 2010.

No Construction Permit Required Determination, Issued May 6, 2009:

- ◆ This no construction permit required determination is for the replacement of two existing dual-fired 46 MMBtu/hr boilers with two new dual-fired 33 MMBtu/hr boilers.

Construction Permit 042009-006, Issued April 9, 2009:

- ◆ This Section (5) NSR Permit is for the installation of a 150 tons per hour rock crushing plant.
- ◆ This equipment was never installed. As the two year period for the beginning of construction has passed, the installation is required to obtain a new construction permit before constructing this rock crushing plant.

Construction Permit 092008-001, Issued September 3, 2008:

- ◆ This Section (5) NSR Permit is for the installation of (4) General Motors EMD 1500 kW generator sets, (6) Fermont 750 kW generator sets, (7) DPGDS Caterpillar 920 kW generator sets, and a 15,000 gallon diesel fuel tank.
- ◆ Special Condition 1 has been applied in Permit Condition 006.

Construction Permit 082002-024D, Issued January 8, 2009:

- ◆ Special Condition 1 states that this permit superseded all special conditions in Construction Permits 082002-024, 082002-024A, 082002-024B (2005-10-039), 082002-024B (2008-03-097), and 082002-024C.
- ◆ Special Condition 3 vacates Construction Permits 0695-010, 0695-010A, 099-015, 1099-001, 1099-001A (2000-01-079), 1099-001A (2000-05-011), 1099-001B, and 1099-001C.
- ◆ Special Condition 18 requires the permanent removal of residual oil fired boilers 002J, 002K, 002L, and 002M in Building 645; all woodworking operations (016) in Building 1448; and the hospital waste incinerator (014). These emission sources have been removed from the installation; therefore, this special condition is no longer applicable.
- ◆ Special Conditions 2, 4 through 8, 11 through 17, and 19 through 21 have been applied in Permit Condition PW001.
- ◆ Special Conditions 9 and 10 are no longer applicable as the requirement to conduct ozone ambient air monitoring was waived by the Director in a letter dated February 6, 2013 [excerpt]:

“The Air Pollution Control Program's Monitoring Unit has reviewed the quarterly ozone monitoring data reports for this project. This review has determined that the monitoring conducted to date has been in accordance with the ozone ambient air monitoring data quality objectives cited in the Quality Assurance Project Plan. The monitoring data indicates the last three years of 8-hour ozone design value concentrations are below the 0.075 ppm National Ambient Air Quality Standard for ozone.

Ozone monitoring began as a condition of the aforementioned permit and was allowed to be discontinued consistent with the terms of the permit. The monitoring was approved to be discontinued after the initial five year monitoring period, but Fort Leonard Wood must continue to conduct the monitoring for ozone until receiving such approval, in writing, from the Director of the Air Pollution Control Program.

Your request to discontinue operation of the ozone monitoring at Fort Leonard Wood is hereby approved effective October 31, 2012.”

No Construction Permit Required Determination, Issued September 18, 2006:

- ◆ This no construction permit required determination is for the use of an Army training device called a Burning Vehicle Simulator also referred to as a Black Smoke Generator.

Construction Permit 072003-022A, Issued December 6, 2005:

- ◆ Amendment A adds 55 tpy NO_x and SO_x limits to all of the boilers at the installation as of December 6, 2005 (both new and existing).
- ◆ The special conditions of Amendment A supersede the special conditions of Construction Permit 072003-022.
- ◆ The special conditions of Amendment A have not been applied in this permit. The installation has accepted a voluntary limit (Permit Condition 007) of 55 tpy NO_x and 55 tpy SO_x from all boilers, hot water heaters, and space heaters which will become a federally enforceable limit upon the issuance of this permit. As the voluntary limit is more restrictive than the special conditions of Amendment A, only the voluntary limit has been applied in this permit.

No Construction Permit Required Determination, Issued June 18, 2004:

- ◆ This no construction permit required determination is for the installation of four land mobile radio emergency generators placed at various locations around the base.

Construction Permit 062003-005, Issued May 15, 2003:

- ◆ This Section (5) NSR Permit was for the installation of two 55 pound capacity dry-to-dry dry cleaning machines.
- ◆ These dry cleaning machines are no longer in operation at the installation.

Construction Permit 052000-004A, Issued March 24, 2003:

- ◆ Amendment A removes the quarterly reporting requirements from Construction Permit 052000-004.
- ◆ This amendment supersedes all special conditions in Construction Permit 052000-004.
- ◆ The fire training structure (EP-56 and EP-57) is onsite, but is no longer operable; therefore, the special conditions of this permit have not been included in this operating permit. If the fire training structure is fixed such that it becomes operable in the future, the permittee shall apply for an operating permit amendment.

No Construction Permit Required Determination, Issued October 9, 2002:

- ◆ This no construction permit required determination is for the installation of a laundry facility containing a 50 HP steam boiler, a 200 gallon water heater, a 95 pound dryer, an ironer, and two 275 pounds dryers.

Construction Permit 022002-009, Issued February 20, 2002:

- ◆ This Section (5) NSR permit is for the installation of a 150 tph asphalt plant.
- ◆ This asphalt plant is no longer in operation; therefore, the special conditions of this permit have not been included in this operating permit.

No Construction Permit Required Determination, Issued January 14, 2002:

- ◆ This no construction permit required determination is for the installation of two 10,000 gallon tanks, one containing E85 and the other containing biodiesel.

No Construction Permit Required Determination, Issued February 27, 2001:

- ◆ This no construction permit required determination is for an increase in driver training activities associated with Military Occupational Specialty (MOS) 88M10.

No Construction Permit Required Determination, Issued December 15, 2000:

- ◆ This no construction permit required determination is for an unpaved road around the perimeter of Fort Leonard Wood.

Construction Permit 052001-011, Issued April 11, 2001:

- ◆ This Section (5) NSR permit establishes a 25.0 tpy VOC limit on a number of existing fuel storage tanks that are limited by throughput, capacity, and the types of fuel allowed to be stored in the tanks.
- ◆ Special Condition 1 states that the conditions of this permit superseded all special conditions of Construction Permits 0294-007, 0294-007A and 0895-030.
- ◆ Special Condition 2 has been applied in Permit Condition 008.

Construction Permit 052001-010, Issued April 11, 2001:

- ◆ This Section (5) NSR permit establishes a 30 tpy VOC limit on the paint booth operations located in Buildings 5138, 5265, and 5266.
- ◆ Special Condition 1 states that the conditions of this permit supersede all special conditions of Construction Permits 0294-007, 0294-007A, 0697-003, and 0998-032.
- ◆ Special Condition 2 was superseded by Construction Permit 012015-001.
- ◆ Special Condition 3 has been applied in Permit Condition 009.

No Construction Permit Required Determination, Issued October 16, 2000:

- ◆ This no construction permit required determination was for the addition of 257 pulse boilers each less than 0.3 MMBtu/hr natural gas, 24 steam boilers each less than 2.5 MMBtu/hr natural gas, six pulse boilers each less than 1.4 MMBtu/hr propane, 18 radiant heat combustion units each less than 0.15 MMBtu/hr propane, and three boilers each less than 1.4 MMBtu/hr natural gas.

No Construction Permit Required Determination, Issued September 20, 2000:

- ◆ This no construction permit required determination was for the replacement of family housing unit furnaces.

No Construction Permit Required Determination, Issued April 20, 2000:

- ◆ This no construction permit required determination was for the relocation of the 577th rock crushing plant.

Construction Permit 082000-006, Issued July 11, 2000:

- ◆ This Section (5) NSR Permit is for the addition of a Bureau of Alcohol, Tobacco, and Firearms explosive range and classroom which will include the use of explosives, gasoline for Molotov cocktail demonstrations, and a small propane space heater.
- ◆ The Bureau of Alcohol, Tobacco, and Firearms explosive range and classroom is no longer in operation; therefore, the special conditions of this permit have not been included in this operating permit.

Construction Permit 0999-015, Issued September 24, 1999:

- ◆ This Section (5) NSR Permit allows the fog oil generators to combust JP8/JAA as a fuel in addition to unleaded gasoline.
- ◆ This permit contains no special conditions.

Construction Permit 0899-027, Issued July 22, 1999:

- ◆ This Section (5) NSR Permit was for the installation of seven larger sized natural gas boilers at the Chemical Defense Training Facility (CDTF).
- ◆ This permit contains no special conditions.

Construction Permit 0699-022, Issued May 18, 1999:

- ◆ This Section (5) NSR Permit was for the installation of a 300 kW emergency generator at the CDTF facility.
- ◆ This permit contains no special conditions.

Construction Permit 0495-013A, Issued September 16, 1998:

- ◆ This Section (5) NSR Permit was for the installation of a Chemical Defense Training Facility.
- ◆ This permit supersedes all special conditions in Construction Permit 0495-013.
- ◆ This permit contains no special conditions.

Construction Permit 0897-013, Issued June 30, 1997:

- ◆ This Section (5) NSR Permit was for the installation of six used oil heaters.
- ◆ This permit contains no special conditions.

Construction Permit 0590-004A, Issued December 13, 1996:

- ◆ This amendment modifies the types of wastes allowed to be burned in the hospital incinerator to 0, 1, 4, and 5.
- ◆ The hospital waste incinerator is no longer in operation; therefore, the special conditions of this permit and of Construction Permit 0590-004 have not been included in this operating permit.

Construction Permit 0794-011, Issued July 1, 1994:

- ◆ This Section (5) NSR permit is for the installation of a two 10.25 MMBtu/hr Kewanee boilers and six 4.45 MMBtu/hr Fulton boilers.
- ◆ The special conditions of this permit have been applied in Permit Condition 035.
- ◆ Building 311A's 10.25 MMBtu/hr Kewanee boiler constructed in 1984 is one of the two 10.25 MMBtu/hr boilers discussed in this permit. The other 10.25 MMBtu/hr Kewanee boiler is no longer in operation. Although Permit 0794-011 states that NSPS Dc applies to this boiler, NSPS Dc does not apply to the boiler for the following reasons:
 - The boiler was constructed in 1984, prior to the applicability date of this regulation of June 9, 1989.
 - The changes to the boiler in 1992 to allow for the combustion of natural gas did not meet the definition of "modification" at §60.2 as the physical change did not result in an increase in the amount of any air pollutant (to which a standard applies) and did not result in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted. NSPS Dc contains standards for SO₂ and filterable PM. While combusting fuel oil this boiler has the potential to emit 82 lb/hr of SO₂ (AP-42 Table 1.3-1 provides an emission factor of 142S lb/Mgal; however, the installation would have had no restrictions on their fuel

oil sulfur content at the time of the modification. Potential emissions were based on the only applicable SO₂ restriction to the boiler in 1992 of 8 lb/MMBtu in 10 CSR 10-6.260) and 0.15 lb/hr filterable PM (AP-42 Table 1.3-1 provides an emission factor of 2 lb/Mgal). While combusting natural gas this boiler has the potential to emit 0.01 lb/hr SO₂ (AP-42 Table 1.4-2 provides an emission factor of 0.6 lb/MMscf) and 0.02 lb/hr filterable PM (AP-42 Table 1.4-2 provides an emission factor of 1.9 lb/MMscf).

- The changes to the boiler in 1992 to allow for the combustion of natural gas did not meet the requirements of the term “reconstruction” in §60.15(b) as the fixed capital cost of the new components was less than 50% of the fixed capital cost that would be required to construct a comparable new boiler.

Construction Permit 0392-011, Issued March 18, 1992:

- ◆ This NSR permit is for the installation of the Thunderbird rock crushing plant.
- ◆ The special conditions of this permit supersede the special conditions of Construction Permit 0790-007.
- ◆ The special conditions of this permit have been applied in Permit Condition 010.

Construction Permit 0891-003, Issued August 8, 1991:

- ◆ This NSR permit is for the installation of a crushing and screening plant.
- ◆ This rock crushing plant is no longer in operation; therefore, the special conditions of this permit have not been applied in this operating permit.

Construction Permit 0983-019, Issued May 16, 1983:

- ◆ This NSR permit is for the installation of an incinerator.
- ◆ This incinerator is no longer in operation.

Construction Permit 0979-030, Issued September 21, 1979:

- ◆ This NSR permit is for the installation of a 15 gal/hr fuel oil #2 boiler for space heating.
- ◆ This permit contains no special conditions.

Construction Permit 0879-002, Issued August 1, 1979:

- ◆ This NSR permit is for the installation of an incinerator.
- ◆ This incinerator is no longer in operation.

Construction Permits 0879-010 and 0879-011, Issued August 1, 1979:

- ◆ These NSR permits are for the installations of two incinerators.
- ◆ These incinerators are no longer in operation.

Construction Permits 0179-006 through 0179-016, Issued January 1, 1979:

- ◆ These NSR permits are for the installation of 11 storage tanks.
- ◆ These permits contain no special conditions.
- ◆ Tanks 3 and 4 are no longer located at the installation.

NSPS Applicability

40 CFR Part 60, Subparts D, Da, and Db – *Standards of Performance for Steam Generating Units* are not applicable to the installation and has not been applied in this permit. The installation's largest boiler is only 42 MMBtu/hr; therefore, none of these regulations are applicable.

40 CFR Part 60, Subpart Dc – *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* is applicable to 002BB, 002Z, 002AA, 002S, 002X, and 002Y and has been applied in Permit Condition 011. This regulation is not applicable to 002A as it was constructed in 1984.

40 CFR Part 60, Subpart I – *Standards of Performance for Hot Mix Asphalt Facilities* applies to the asphalt plant and has been applied in Permit Conditions 012 and 013.

40 CFR Part 60, Subparts K and Ka – *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to July 23, 1984* are not applicable to the installation and have not been applied within this permit. These regulations apply to storage vessels with a storage capacity greater than 40,000 gallons that are used to store petroleum liquids. The only tanks at the installation with a storage capacity of greater than 40,000 gallons are 4053-A1 and 4054-A1 located at the DOL POL Farm which were constructed in 1983. These tanks contain diesel which does not meet the definition of petroleum liquids at §60.111a. If the contents of these tanks change, NSPS Ka applicability must be re-evaluated.

40 CFR Part 60, Subpart Kb – *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984*

- ◆ This regulation does not currently apply to 1021-A3 40,000 gallon Heat Plant Generator Day Tank and 2369-A1 40,000 gallon Central Boiler Plant Tank as these tanks currently store diesel/fuel oil #2 which has a maximum true vapor pressure of 0.012 psi (0.083 kPa) at 80°F. If these tanks change service in the future, NSPS Kb applicability must be re-evaluated.
- ◆ This regulation is not applicable to 1605-1 20,000 gallon Underground Storage Tank per §60.110b(d)(6) as this storage tank is located at a gasoline service station.
- ◆ This regulation is not applicable to 4056-A1 37,590 gallon DOL POL Farm Tank as this storage tank was constructed in 1983.

40 CFR Part 60, Subpart EE – *Standards of Performance for Surface Coating of Metal Furniture*

- ◆ This regulation is not applicable according to a November 29, 1994 EPA Region 4 letter⁷⁹ which states that a metal furniture production facility has a continuous process transporting furniture with a conveyor belt. The installation does not have a continuous process for transporting furniture.

40 CFR Part 60, Subpart MM – *Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations* is not applicable to the installation and has not been applied in this permit. Although emission source 9 Bldg 5265/5266 Vehicle Paint Booths paint automobiles and light-duty trucks, they are not considered affected facilities under this regulation as they are not located at an automobile or light-duty truck assembly plant.

⁷⁹ Obtained from the Applicability Determination Index, Control Number 9700019.

40 CFR Part 60, Subpart OOO – *Standards of Performance for Nonmetallic Mineral Processing Plants* is not applicable to the installation and has not been applied in the permit. The Cedar Rapids rock crushing plant and the Thunderbird rock crushing plant are both exempt from this regulation per §60.670(c)(2) as they are portable crushed stone plants with capacities of 150 tons per hour or less.

40 CFR Part 60, Subpart IIII – *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* is applicable to the installation and has been applied in Permit Conditions 014, 015, and 029.

40 CFR Part 60, Subpart JJJJ – *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines* is applicable to the installation and has been applied in Permit Conditions 016, 017, and 018. Although, GEN198 and GEN803 were constructed after June 12, 2006, the emergency stationary internal combustion engines were not manufactured on or after January 1, 2009; therefore, this regulation is not applicable to GEN198 and GEN803 as long as they meet the definition of emergency stationary internal combustion engine in §60.4248:

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE shall comply with the requirements specified in §60.4243(d) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4243(d), then it is not considered to be an emergency stationary ICE under NSPS JJJJ.

- (1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. 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.
- (2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §60.4243(d).
- (3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §60.4243(d)(3)(i).

The permittee shall operate the emergency stationary ICE according to the requirements in §60.4243(d)(1) through (3). In order for the engine to be considered an emergency stationary ICE under NSPS JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §60.4243(d)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in §60.4243(d)(1) through (3), the engine will not be considered an emergency engine under NSPS JJJJ and shall meet all requirements for non-emergency engines. [§60.4243(d)]

1. There is no time limit on the use of emergency stationary ICE in emergency situations. [§60.4243(d)(1)]
2. The permittee may operate the emergency stationary ICE for any combination of the purposes specified in §60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any

operation for non-emergency situations as allowed by §60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. [§60.4243(d)(2)]

- a) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [§60.4243(d)(2)(i)]
3. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §60.4243(d)(2) of this section. Except as provided in §60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4243(d)(3)]
 - a) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§60.4243(d)(3)(i)]
 - i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [§60.4243(d)(3)(i)(A)]
 - ii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§60.4243(d)(3)(i)(B)]
 - iii) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§60.4243(d)(3)(i)(C)]
 - iv) The power is provided only to the facility itself or to support the local transmission and distribution system. [§60.4243(d)(3)(i)(D)]
 - v) The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee. [§60.4243(d)(3)(i)(E)]

MACT Applicability

40 CFR Part 63, Subpart T – *National Emission Standards for Halogenate Solvent Cleaning* is not applicable to the installation and has not been applied in this permit. None of the parts washers use any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents.

40 CFR Part 63, Subpart ZZZZ – *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* is applicable to the installation and has been applied in Permit Conditions 019, 020, 021, and 028. §63.6590(c)(1) states that new stationary RICE located at an area source shall comply with this regulation by complying with NSPS JJJJ.

40 CFR Part 63, Subpart CCCCCC – *National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities* is applicable to the installation and has been applied in Permit Condition 022.

40 CFR Part 63, Subpart HHHHHH – *National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources* does not apply to the installation and has not been applied in this permit. §63.11169(d)(1) exempt surface coating or paint stripping performed on site at installations owned and operated by the Armed Forces of the United States.

40 CFR Part 63, Subpart JJJJJJ – *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* does not apply to the installation and has not been applied in this permit. All of the installation’s boilers are exempt per §63.11195(e) as they meet the definition of gas-fired boiler in §63.11237:

“Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.”

40 CFR Part 63, Subpart AAAAAAA – *National Emission Standards for Hazardous Air Pollutants for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing* does not apply to the installation and has not been applied within this permit. The installation does not operate any asphalt flux blowing stills; therefore, the installation does not meet the definition of asphalt processing operation in §63.11566 or the applicability requirements of §63.11559.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

40 CFR Part 61, Subpart M – *National Emission Standards for Asbestos* is applicable to the installation and has been applied within this permit (see Section IV. Core Permit Requirements).

Compliance Assurance Monitoring (CAM) Applicability

40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

The CAM rule applies to each pollutant specific emission unit that:

- Is subject to an emission limitation or standard, and
- Uses a control device to achieve compliance, and
- Has pre-control emissions that exceed or are equivalent to the major source threshold.

054D Drum Dryer is required to conduct compliance assurance monitoring to demonstrate compliance with NSPS I in Permit Condition 013.

Greenhouse Gas Emissions

The installation is a minor source of greenhouse gases with potential CO₂e emissions of 87,797.32 tons per year.

Updated Potential to Emit for the Installation

Pollutant	Potential to Emit (tons per year) ⁸⁰
CO	134.40
Combined HAP	<25.0 ⁸¹
Individual HAP	<10.0 ⁸¹
NO _x	419.13
PM ₁₀	393.97
PM _{2.5}	225.04
SO _x	111.99
VOC	105.92

Other Regulatory Determinations

10 CSR 10-6.061 *Construction Permit Exemptions*

Given the size of the military training base and associated housing, each year the installation installs many new emission sources that do not require a construction permit as they meet an exemption in 10 CSR 10-6.061. Some of the construction permit exemptions commonly used by the installation are:

- Any combustion equipment using exclusively natural gas or liquefied petroleum gas or any combination of these with a capacity of less than 10 MMBtu/hr heat input [10 CSR 10-6.061(3)(A)1.A]
- Storage tanks and vessels having a capacity of less than 500 gallons [10 CSR 10-6.061(3)(A)2.X(I)]
- Tanks, vessels, and pumping equipment used exclusively for the storage and dispensing of any aqueous solution which contains less than one percent by weight of organic compounds. Tanks and vessels storing the following materials are not exempt: [10 CSR 10-6.061(3)(A)2.X(II)]
 - Sulfuric or phosphoric acid with an acid strength of more than 99.0% by weight;
 - Nitric acid with an acid strength of more than 70.0% by weight;
 - Hydrochloric or hydrofluoric acid with an acid strength of more than 30.0% by weight; or

⁸⁰ Each emission unit was evaluated at 8,760 hours of uncontrolled annual operation unless otherwise noted:

- ◆ Includes the 40.0 tons per year NO_x emission limit on the Asphalt Plant in Permit Condition 001.
- ◆ Includes the 20.0 tons per year VOC emission limit on the paint booths in Permit Condition 002.
- ◆ Includes the 13.0 tons per year PM₁₀ emission limit on the Cedar Rapids Rock Crushing Plant in Permit Condition 005.
- ◆ Includes the 40.0 tons per year NO_x emission limit on the Prime Power School Engines in Permit Condition 006.
- ◆ Includes the 55.0 tons per year NO_x emission limit on all boilers in Permit Condition 007.
- ◆ Includes the 55.0 tons per year SO_x emission limit on all boilers in Permit Condition 008.
- ◆ Includes the 100,000 tons per year rock crushing limit on the Thunderbird Rock Crushing Plant in Permit Condition 010.
- ◆ Does not include PM₁₀ and PM_{2.5} emissions from emission sources 8 Bldg 5265 Furniture Paint Booth, 9 Bldg 5265/5266 Vehicle Paint Booths, and 30 Bldg 5138 Paint Booth.

⁸¹ As limited by Permit Condition PW002.

- More than one liquid phase, where the top phase contains more than one percent VOC by weight;
- Internal combustion engines and gas turbine driven compressors, electric generator sets, and water pumps, used only for portable or emergency services, provided that the maximum annual operating hours shall not exceed 500 hours. Emergency generators are exempt only if their sole function is to provide back-up power when electric power from the local utility is interrupted. This exemption only applies if the emergency generators are operated only during emergency situations and for short periods of time to perform maintenance and operational readiness testing. The emergency generator shall be equipped with a non-resettable meter [10 CSR 10-6.061(3)(A)2.BB]

The installation is required to include emissions from all any new boilers, hot water heaters, and space heaters installed under 10 CSR 10-6.061 in their compliance tracking for the SO_x and NO_x limits under Permit Condition 007 and in their compliance tracking for the HAP limits under Permit Condition PW002. The installation is required to include emissions from all new HAP emission sources installed under 10 CSR 10-6.061 in their compliance tracking for the HAP limits under Permit Condition PW002. Although operating permits generally only apply to existing equipment and require a permit modification to include new equipment, the inclusion of future equipment was deemed necessary due to the vast size of this installation and the number of operating permit modifications which would be required to include the tracking of emissions from these smaller emission sources in the SO_x, NO_x, and HAP limits. The language included in Permit Conditions PW002 and 007 is intended to allow for the operation of these small emission sources to constitute an off-permit change (the semi-annual report of emission sources is intended to satisfy the off-permit change notification requirements in 10 CSR 10-6.065(6)(C)9). Other requirements applicable to these new smaller emission sources (such as NSPS III, NSPS JJJ, and MACT ZZZZ) will continue to apply, but will not be included in the operating permit until permit renewal. The flexibility added to this operating permit applies only to smaller emission sources which would be exempt from the requirement to obtain a construction permit (i.e. meet one of the exemptions in 10 CSR 10-6.061), new emission sources requiring a construction permit are still required to obtain a construction permit. Each construction permit issued to the installation shall identify the appropriate operating permit modifications and timeline necessary for the emission sources installed/modified under the construction permit.

10 CSR 10-6.220 *Restriction of Emission of Visible Air Contaminants* is applicable to the installation and has been applied in Permit Condition 023. This regulation does not apply to:

- Internal combustion engines; [10 CSR 10-6.220(1)(A)]
- Wood burning stoves or fireplaces used for heating; [10 CSR 10-6.220(1)(B)]
- Fires used for recreational or ceremonial purposes or fires used for the noncommercial preparation of food by barbecuing; [10 CSR 10-6.220(1)(C)]
- Fires used solely for the purpose of fire-fighter training; [10 CSR 10-6.220(1)(D)]
- Smoke generating devices when a required construction permit has been issued or a written determination that a permit is not required has been obtained; [10 CSR 10-6.220(1)(E)]
- Truck dumping of nonmetallic minerals into any screening operation, feed hopper or crusher; [10 CSR 10-6.220(1)(G)]
- Any open burning that is exempt from 10 CSR 10-6.045; [10 CSR 10-6.220(1)(I)]
- Fugitive emissions subject to 10 CSR 10-6.170; and [10 CSR 10-6.220(1)(J)]
- Any unit burning only natural gas, landfill gas, propane, liquefied petroleum gas, or refinery gas and using proper combustion techniques. [10 CSR 10-6.220(1)(K)]

10 CSR 10-6.260 *Restriction of Emission of Sulfur Compounds* is applicable to the installation and has been applied in Permit Conditions 030, 031, 032, 033, and 034.

10 CSR 10-6.261 *Control of Sulfur Dioxide Emissions* is applicable to the installation and has been applied in Permit Conditions 024 and 025. This regulation does not apply to:

- Individual units fueled exclusively with natural gas (as defined in 40 CFR 72.2) or liquefied petroleum gas as defined by American Society for Testing and Materials (ASTM) International or any combination of these fuels as of December 31, 2016; [10 CSR 10-6.261(1)(A)]
- Individual indirect heating units with a rated capacity less than or equal to 0.35 MMBtu/hr actual heat input; or [10 CSR 10-6.261(1)(B)]
- Individual units subject to a more restrictive SO₂ emission limit or more restrictive fuel sulfur content limit under – [10 CSR 10-6.261(1)(C)]
 1. 10 CSR 10-6.070; or
 2. Any federally enforceable permit.

10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes* is applicable to the installation and has been applied in Permit Condition 026. This regulation does not apply to:

- The grinding, crushing, and classifying operations at a rock quarry; [10 CSR 10-6.400(1)(B)2]
- Smoke generating devices, as defined in 10 CSR 10-6.400(2)(D), when a required permit or a written determination that a permit is not required has been issued or written; [10 CSR 10-6.400(1)(B)4]
- The burning of fuel for indirect heating; [10 CSR 10-6.400(1)(B)6]
- Fugitive emissions; [10 CSR 10-6.400(1)(B)7]
- Emission sources that are exempt from construction permitting under 10 CSR 10-6.061; [10 CSR 10-6.400(1)(B)8]
- Emission units that at maximum design capacity have a potential to emit less than 0.5 pounds per hour of particulate matter; [10 CSR 10-6.400(1)(B)12]
- Coating operations equipped with a control system designed to control at least 95% of the particulate overspray provided the system is operated and maintained in accordance with manufacturers' specifications or comparable maintenance procedures that meet or exceed manufacturers' specifications; [10 CSR 10-6.400(1)(B)14]
- Any particulate matter emission unit that is subject to a federally enforceable requirement to install, operate, and maintain a particulate matter control device system that controls at least 90% of particulate matter emissions; and [10 CSR 10-6.400(1)(B)15]

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

1. The specific pollutant regulated by that rule is not emitted by the installation;
2. The installation is not in the source category regulated by that rule;
3. The installation is not in the county or specific area that is regulated under the authority of that rule;
4. The installation does not contain the type of emission unit which is regulated by that rule;
5. The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the Air Pollution Control Program a schedule for achieving compliance for that regulation(s).

Response to Public Comments

The draft Part 70 Operating Permit, Project 2010-06-074, for Installation Management Command and Fort Leonard Wood (169-0004) was placed on public notice as of December 23, 2016, for a 30-day comment period. The public notice was published on the Department of Natural Resources' Air Pollution Control Program's web page at: <http://www.dnr.mo.gov/env/apcp/PermitPublicNotices.htm> on Friday, December 23, 2016.

On January 17, 2017, the Air Pollution Control Program received comments from Mark A. Smith, Air Permitting and Compliance Branch Chief for EPA Region VII.

EPA Comment #1:

First, Plant wide Permit Condition PW001 incorporates applicable Special Conditions from Permit to Construct #082002-024, issued on August 30, 2002 and subsequently modified four (4) times. Permit to Construct #082002-024 was a corrective action permit to replace and vacate two (2) previously issued Prevention of Significant Deterioration (PSD) permits. The requirements in Permit Condition PW001 are all written toward the protection of the National Ambient Air Quality Standards (NAAQS). Requirements placed against an installation to protect the NAAQS are "State-Only Requirements" and therefore, MDNR should clearly identify Permit Condition PW001 and a "State-Only Requirement."

Missouri Air Pollution Control Program Response:

The permit has been modified as requested.

EPA Comment #2:

Second, Permit Condition 004 incorporates Special Conditions from Permit to Construct #052013-012, issued May 23, 2013. Monitoring / recork keeping requirement 1., directs the permittee to maintain fuel usage and supplier certification records in accordance with 40 CFR Part 60, Subpart Dc. EPA recommends MDNR expand the regulatory citation to include the section(s); paragraph(s); and / or subparagraphs(s) that are applicable to fuel usage and supplier certification records management.

Missouri Air Pollution Control Program Response:

The permit has been modified as requested.

EPA Comment #3:

Third, Permit Condition 005 incorporates applicable Special Conditions from Permit to Construct #0995-017B. Operational limitation 2; from Special Condition 5 in Permit to Construct #0995-017B, requires the permittee to apply water to the rock crushing plant during its operation in sufficient quantity to prevent emissions of "visible" (emphasis added) particulate matter. This operational limitation also allows the permittee to discontinue watering if no "visible" (emphasis added) emissions are occurring.

The term "visible" is too vague to be enforceable as a practical matter. What is "visible" to one individual may or may not be "visible" to another individual. Therefore, EPA strongly recommends MDNR utilize the authority provided in 10 CSR 10-6.065(6)(C)1.C.(I)(b) and

require the permittee to conduct visible emissions readings on these emission units using the procedures contained in U.S. EPA Test Method 22 and maintain records of all observations using Attachment E, or an equivalent approved by MDNR.

Missouri Air Pollution Control Program Response:

The permit has been modified as requested.

EPA Comment #4:

Fourth, Permit Condition 010 incorporates Special Conditions from Permit to Construct #0392-011, issued March 18, 1992. General requirements 1. and 2., in Permit Condition 010, appear to address protection of the National Ambient Air Quality Standards (NAAQS) and elimination of nuisances; both of which are “State-Only requirements. EPA recommends MDNR clearly indicate that General Requirement 1. and General Requirement 2. are “State-Only requirements. Additionally, Permit to Construct #0392-011 specifically identifies Fort Leonard Wood Quarry Site (Site No. 3860-4-21) as the location of the Thunderbird Rock Crushing Plant referenced in Operational Limitation 1. and Operational Limitation 2. EPA recommends MDNR include the added location specificity associated with the Thunderbird Rock Crushing Plant in these operational limitations.

Missouri Air Pollution Control Program Response:

The permit has been modified as requested.

EPA Comment #5:

Fifth, Permit Condition 011; Permit Condition 012; and Permit Condition 013 all list a pollutant standard with the qualification “on or after the date on which the performance test required to be conducted by §60.8 is completed.” §60.8 requires the performance test to be completed within 60 days of achieving maximum production, but no later than 180 days after initial startup. It appears, to EPA, that startup of all of the emission units included in Permit Condition 011; Permit Condition 012; and Permit Condition 013 will occur more than 180 prior to the issuance of this operating permit. Therefore, EPA believes the performance tests should have been completed and recommends MDNR modify the language in Permit Condition 011; Permit Condition 012; and Permit Condition 013.

Missouri Air Pollution Control Program Response:

Permit Condition 011 has been modified as requested. No modifications have been made to Permit Conditions 012 and 013 as construction/installation of the asphalt plant has only recently begun (the construction permit was issued March 6, 2015) and start-up of the asphalt plant has not yet occurred.

EPA Comment #6:

Sixth, the Restriction of Odors requirement included in Section IV: Core Permit Requirements; states that “(T)his requirement is not federally enforceable.” It should be noted that all facility requirements included in every operating permit will be enforced by the EPA. However, odor control is not a federal requirement but is a State-Only requirement. Therefore, EPA recommends MDNR replace “This Requirement is Not Federally Enforceable” with “This is a State-Only Requirement.”

Missouri Air Pollution Control Program Response:

The permit has been modified as requested.

EPA Comment #7:

Seventh, the NSPS Applicability section of the Statement of Basis says that 40 CFR Part 60, Subparts K and Ka are not applicable to the installation and have not been applied within this permit; because all of the tanks built after June 11, 1973 and before July 23, 1984 are less than 40,000 gallons in capacity. Permit to Construct #0179-006 to 0179-016, issued January 9, 1979 authorized the installation of eleven (11) petroleum storage tanks. This permit to construct indicates that storage tanks 3 and 4 each have a capacity of 3,022 barrels. A barrel of petroleum is equal to 42 gallons, therefore the capacity of a 3,022 barrel tank is greater than 40,000 gallons and tanks 3 and 4 are potential subject to NSPS K and / or Ka. Additionally, the Permit to Construct #0179-006 to 0179-016 specifically indicates that tanks 3 and 4 are subject to NSPS regulations. EPA highly recommends MDNR provide additional clarification regarding the apparent discrepancy between Permit to Construct #0179-006 to 0179-016 and the Statement of Basis.

Missouri Air Pollution Control Program Response:

Tanks 3 and 4 from Construction Permit #0179-006 to 0179-016 are no longer located at the installation.

The only tanks at the installation with a capacity greater than 40,000 gallons are:

Tanks			
Emission Source	Description	Contents	Capacity (gallons)
4053-A1	DOL POL Farm	#2 Diesel	56,448
4054-A1	DOL POL Farm	#1 Diesel	71,526

These tanks were constructed in 1983. As they contain diesel which does not meet the definition of petroleum liquids at §60.111a they are not subject to NSPS Ka at this time. If the contents of these tanks change, NSPS Ka applicability must be re-evaluated.

EPA Comment #8:

Finally, the Permit to Construct #0794-011 authorized the installation of two (2) 10.25 MMBTU Kewanee boilers and six (6) 4.45 MMBTU Fulton boilers. The construction permit history, in the Statement of Basis, indicates the Special Conditions of Permit to Construct #0794-011 have been superseded by the conditions in Permit Condition 007. The emission units listed, as subject to Permit Condition 007, shows only one (1) 10.25 MMBTU Kewanee boiler, installed in 1984(sic) and there is no mention of any Fulton boilers installed in 1994. However, the Permit Condition 007 equipment list does show (2) 0.445 MMBTU Fulton boilers installed in 1995. EPA highly recommends MDNR clarify what appears to be a discrepancy between Permit to Construct #0794-011 and Permit Condition 007.

Missouri Air Pollution Control Program Response:

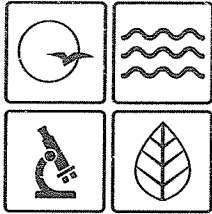
This operating permit contains all of the boilers currently in operation at the installation. Construction Permit 0794-011 was issued to place conditions on existing boilers as indicated in the General Description of the project in Permit 0794-011 "The U. S. Army Training Center at Fort Leonard Wood has applied for a permit governing two 10.25

MMBTU Kewanee boilers and six 4.45 MMBTU Fulton boilers that were installed as replacements for old boilers. The Kewanee boilers, installed in 1984, were originally equipped to burn No. 2 Diesel fuel. These two boilers were modified in 1992 to have the capability of using either natural gas or No. 2 Diesel. The Fulton boilers were installed in 1993 are equipped to use only natural gas.”

Building 311A’s 10.25 MMBtu/hr Kewanee boiler constructed in 1984 is one of the two 10.25 MMBtu/hr boilers discussed in Permit 0794-011. The other 10.25 MMBtu/hr Kewanee boiler is no longer in operation. The fuel consumption limit of 1,100,000 gallons diesel has been included in the permit as Permit Condition 035. Although Permit 0794-011 states that NSPS Dc applies to this boiler, NSPS Dc does not apply to the boiler for the following reasons:

- The boiler was constructed in 1984, prior to the applicability date of this regulation of June 9, 1989.
- The changes to the boiler in 1992 to allow for the combustion of natural gas did not meet the definition of “modification” at §60.2 as the physical change did not result in an increase in the amount of any air pollutant (to which a standard applies) and did not result in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted. NSPS Dc contains standards for SO₂ and filterable PM. While combusting fuel oil this boiler has the potential to emit 82 lb/hr of SO₂ (AP-42 Table 1.3-1 provides an emission factor of 142S lb/Mgal; however, the installation would have had no restrictions on their fuel oil sulfur content at the time of the modification. Potential emissions were based on the only applicable SO₂ restriction to the boiler in 1992 of 8 lb/MMBtu in 10 CSR 10-6.260) and 0.15 lb/hr filterable PM (AP-42 Table 1.3-1 provides an emission factor of 2 lb/Mgal). While combusting natural gas this boiler has the potential to emit 0.01 lb/hr SO₂ (AP-42 Table 1.4-2 provides an emission factor of 0.6 lb/MMscf) and 0.02 lb/hr filterable PM (AP-42 Table 1.4-2 provides an emission factor of 1.9 lb/MMscf).
- The changes to the boiler in 1992 to allow for the combustion of natural gas did not meet the requirements of the term “reconstruction” in §60.15(b) as the fixed capital cost of the new components was less than 50% of the fixed capital cost that would be required to construct a comparable new boiler.

It is unclear if Building 404’s two 0.445 MMBtu/hr Fulton boilers constructed in 1995 are indeed two of the six Fulton boilers discussed in Permit 0794-011 or not. As Permit 0794-011 does not contain any restrictions on the Fulton boilers, it would not affect this operating permit if Building 404’s Fulton boilers are indeed the same Fulton boilers discussed in Permit 0794-011.



Missouri Department of

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NATURAL RESOURCES

Eric R. Greitens, Governor

Carol S. Comer, Director

APR 07 2017

Ms. Kathlene B. Aydt
Deputy Garrison Commander
USAG and Fort Leonard Wood
8112 Nebraska Ave, Bldg 11400
Fort Leonard Wood, MO 65473-8944

Re: Part 70 Operating Permit
Installation ID: 169-0004, Permit Number: OP2017-033

Dear Ms. Aydt

Enclosed with this letter is your Part 70 operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program (APCP) at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102. Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E.
Operating Permit Unit Chief

MJS:ahj

Enclosures

c: PAMS File: 2010-06-074



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