CLARK COUNTY
DEPARTMENT OF AIR QUALITY AND ENVIRONMENTAL MANAGEMENT
500 South Grand Central Parkway, Box 555210, Las Vegas, Nevada 89155

Part 70 Operating Permit
Source: 114

Issued in accordance with the
Clark County Air Quality Regulations (AQR)

ISSUED TO: 99 Civil Engineer Squadron, Nellis Air Force Base

SOURCE LOCATION:
Nellis Air Force Base
Nevada 89191
T21S, R62E, Section 4
Hydrographic Basin Numbers: 212, 215

COMPANY ADDRESS:
4349 Duffer Drive, Suite 1601
Nellis AFB, NV 89191-2021

NATURE OF BUSINESS:
SIC Code 9711: National Security
NAICS: 92811: National Security

RESPONSIBLE OFFICIAL:

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Initial Permit Issuance: April 30, 2009 Expiration Date: April 29, 2014

ISSUED BY: CLARK COUNTY DEPARTMENT OF AIR QUALITY AND ENVIRONMENTAL MANAGEMENT

Tina Gingras
Assistant Director, Clark County DAQEM

EXECUTIVE SUMMARY

Nellis Air Force Base (NAFB) is located in Clark County, Nevada, near the City of Las Vegas. The Permittee is a major source located in Hydrographic Area (HA) 212 (Las Vegas Valley) and HA 215 (Black Mountains Area). The Las Vegas Valley is declared serious nonattainment for PM_{10} and CO, and nonattainment for ozone; the Black Mountains Area is PSD for all criteria pollutants. NAFB has been permitted under NSR as a major source of NO_X and minor for all other regulated pollutants. All of the activities and emission units at NAFB are classified as Standard Industrial Code (SIC) and North American Industry Classification System (NAICS) Code 9711 (National Security). The emission units and activities at NAFB base are divided into three geographic areas, which vary both in size and purpose. Area I (the Main Base) consists of the flight line and a wide variety of commercial and industrial use in support of the base's mission. Area II is located to the east of the Main Base. This area includes the munitions storage area and the Red Horse Squadron complex along with its mineral processing, asphalt batch plant, and concrete batch plant activities. Area III is a 1.9 square mile portion to the north of the Main Base and includes the bulk fuels storage area, Security Police Squadron facilities, open space and other support facilities. NAFB submitted its first Title V application on June 14, 1996. That application was deemed complete by the agency on August 6, 1996. Since that time, NAFB has updated its Title V application numerous times; the last request for update was received by DAQEM on March 14, 2008.

All general and specific conditions in the permit are federally enforceable unless explicitly denoted otherwise *[AQR 19.4.2].*

The following emission rates are for reference purposes only and are not intended to be enforced by direct measurement unless otherwise noted in Section III of this permit.

Pollutant	Tons per Rolling 12-months
Particulate Matter (as PM10)	25.64
Nitrogen Oxides (NOx)	97.83
Carbon Monoxide (CO)	68.98
Sulfur Oxides (SOx)	4.99
Volatile Organic Compounds (VOC)	45.11
Hazardous Air Pollutants (HAPS)	10.90

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I. ACRONYMS

Table I-1: List of Acronyms

Acronym	Term
AQR	Clark County Air Quality Regulations
AST	Aboveground Storage Tank
ATC	Authority to Construct
ATC/OP	Authority to Construct/Operating Permit
Bhp	Brake Horsepower
BCC	Clark County Board of County Commissioners
CAO	Field Corrective Action Order
CARB	California Air Resources Board
CE	Control Efficiency
CEM	Continuous Emissions Monitoring System
CF	Control Factor
CFR	United States Code of Federal Regulations
CO	Carbon Monoxide
CPI	Urban Consumer Price Index
DAQEM	Clark County Department of Air Quality & Environmental Management
DEM	Digital Elevation Model
EF	Emission Factor
EO	Executive Order
EPA	United States Environmental Protection Agency
EU	Emission Unit
EVR	Enhanced Vapor Recovery
GDO	Gasoline Dispensing Operation
HAP	Hazardous Air Pollutant
HP	Horse Power
MMBtu	Millions of British Thermal Units
NAC	Nevada Administrative Code
NEI	Net Emission Increase
NO_X	Nitrogen Oxides
NOV	Notice of Violation
NRS	Nevada Revised Statutes
NSPS	New Source Performance Standards
NSR	New Source Review
OP	Operating Permit
PM_{10}	Particulate Matter less than 10 microns
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
scf	Standard Cubic Feet
SIP	State Implementation Plan
SO_X	Sulfur Oxides
TCS	Toxic Chemical Substance
TSD	Technical Support Document
UST	Underground Storage Tank
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound
VOL	Volatile Organic Liquid

II. GENERAL CONDITIONS

General Requirements:

1. The Permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Air Act (Act) and is grounds for enforcement action; for permit termination, revocation and reissuance or modification;; or for denial of a permit renewal application. *[AQR 19.4.1.6.a]*
2. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid. *[AQR 19.4.1.5]*
3. The Permittee shall pay all permit fees. Permit fees, including annual emission fees, shall be determined pursuant to AQR Section 18. Failure to pay Part 70 permit fees may result in citations or suspensions or revocation of the Part 70 Permit. *[AQR 19.4.1.7]*
4. In the event of any changes in control or ownership of the source, all conditions in this permit shall be binding on all subsequent owners and operators. *[AQR 19.5.4.1.d]*
5. The permit does not convey any property rights of any sort, or any exclusive privilege. *[AQR 19.4.1.6.d]*
6. The Permittee shall not hinder, obstruct, delay, resist, interfere with, or attempt to interfere with the Control Officer, or any individual to whom authority has been duly delegated for the performance of any duty by the AQR *[AQR 5.1]*
7. The Permittee owning, operating, or in control of any equipment or property who shall cause, permit, or participate in any violation of the AQR shall be individually and collectively liable to any penalty or punishment imposed by and under the AQR. *[AQR 8.1]*
8. The Permittee shall continue to comply with applicable requirements for which the Permittee is in compliance. *[AQR 19.3.3.8.b]*
9. Any Permittee who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. *[AQR 19.3.2]*
10. The Permittee may request confidential treatment of any records in accordance with AQR Section 19. Emission data, standards or limitations [all terms as defined in 40 CFR 2.301.a] or other information as specified in 40 CFR 2.301 shall not be considered eligible for confidential treatment. The Administrator and the Control Officer shall each retain the authority to determine whether information is eligible for confidential treatment on a case-by-case basis. *[AQR 19.3.1.3 and 40 CFR 2.301]*

Modification, Revision, Renewal Requirements:

11. The Permittee shall not make a modification, as defined in AQR Section 0, to the existing source prior to receiving an Authority to Construct (ATC) from the Control Officer. *[AQR 12.1.1.1]*

12. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the Permittee for the permit modification, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[AQR 19.4.1.6.c]*

13. Any request for a permit modification must comply with the requirements of AQR Section 19. *[AQR 19.5.5.1]*

14. The Permittee shall not build, erect, install or use any article, machine, equipment or process, the use of which conceals an emission, which would otherwise constitute a violation of an applicable requirement. *[AQR 80.1 and 40 CFR 60.12]*

15. No permit revisions shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit, provided the Source conforms to the applicable requirements of AQR Sections 12 and 58. *[AQR 19.4.1.11]*

16. For purposes of permit renewal, the Permittee shall submit a timely and complete application. A timely application is one submitted between six (6) months and 18 months prior to the date of permit expiration. *[AQR 19.3.1.1.c]*

17. Permit expiration terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted consistent with AQR Subsections 19.3.1.1.c and 19.5.2 in which case the permit shall not expire and all terms and conditions of the permit shall remain in effect until the renewal permit has been issued or denied. *[AQR 19.5.3.2]*

Reporting/Notifications/Providing Information Requirements:

18. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by the permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the Administrator along with a claim of confidentiality. *[AQR 19.4.1.6.e]*

19. The Permittee shall allow the Control Officer or an authorized representative, upon presentation of credentials:
    a. entry upon the Permittee's premises where the source is located, or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
    b. access to inspect and copy, at reasonable times, any records that must be kept under conditions of the permit;
    c. access to inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
    d. access to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. *[AQR 4.3 and 19.4.3.2]*

20. Upon request of the Control Officer, the Permittee shall provide such information or analyses as will disclose the nature, extent, quantity or degree of air contaminants which are or may be discharged by such source, and type or nature of control equipment in use, and such disclosures be certified by a professional engineer registered in the state. In

addition to such report, the Control Officer may designate an authorized agent to make an independent study and report as to the nature, extent, quantity or degree of any air contaminants which are or may be discharged from source. An authorized agent so designated is authorized to inspect any article, machine, equipment, or other contrivance necessary to make the inspection and report. *[AQR 4.4]*

Compliance Requirements:

21. The Permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the terms and conditions of this permit. *[AQR 19.4.1.6.b]*

22. Any person who violates any provision of this operating permit, including, but not limited to, any application requirement; any permit condition; any fee or filing requirement; any duty to allow or carry out inspection, entry or monitoring activities or any requirements by DAQEM is guilty of a civil offense and shall pay civil penalty levied by the Air Pollution Control Hearing Board/Hearing Officer of not more than $10,000. Each day of violation constitutes a separate offense. *[AQR 9.1]*

23. Any person aggrieved by an order issued pursuant to *AQR 9.1* is entitled to review as provided in Chapter 233B of Nevada Revised Statutes (NRS). *[AQR 9.12]*

24. The Permittee shall comply with the requirements of 40 CFR 61, Subpart M, of the National Emission Standard for Asbestos for all demolition and renovation projects. *[AQR 13.1.7]*

25. The Permittee shall maintain a Risk Management Plan (RMP) for the storing, handling, and use of any chemicals subject to accidental release prevention regulations pursuant to 40 CFR 68. The Permittee shall submit an RMP to the Administrator by the date specified in 40 CFR 68.10.and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification. *[AQR 19.4.1.3]*

26. The Permittee shall not use, sell, or offer for sale any fluid as a substitute material for any motor vehicle, residential, commercial, or industrial air conditioning system, refrigerator freezer unit, or other cooling or heating device designated to use a chlorofluorocarbon (CFC) or hydrochlorofluorocarbon (HCFC) compound as a working fluid, unless such fluid has been approved for sale in such use by the Administrator. The Permittee shall keep record of all paperwork relevant to the applicable requirements of 40 CFR 82 on site. *[40 CFR 82]*

27. Requirements for compliance certification with terms and conditions contained in the operating permit, including emission limitations, standards, or work practices, are as follows:
    a. the Permittee shall submit compliance certifications annually in writing to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) and the Administrator at USEPA Region IX (Director, Air and Toxics Divisions, 75 Hawthorne St., San Francisco, CA 94105). A compliance certification for the previous calendar year will be due on January 30 of each year;
    b. compliance shall be determined in accordance with the requirements detailed in AQR 19.4.1.3, record of periodic monitoring, or any credible evidence; and
    c. the compliance certification shall include:
        i. identification of each term or condition of the permit that is the basis of the certification;

ii. the Permittee's compliance status and whether compliance was continuous or intermittent;
iii. methods used in determining the compliance status of the source currently and over the reporting period consistent with Subsection 19.4.1.3; and
iv. other specific information required by the Control Officer to determine the compliance status of the source. *[AQR 19.4.3.5]*

28. The Permittee shall promptly report to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) deviations from permit requirements as soon as practicable but not to exceed ten (10) calendar days of the deviation, including those attributable to upset conditions. Such reporting shall include the probable cause of such deviations and any corrective actions or preventative measures taken. *[AQR 19.4.1.3.c]*

29. The Permittee shall report to the Control Officer any upset, breakdown, malfunction or emergency, as defined in Section 0, which cause emissions of regulated air pollutants in excess of any limits set by regulation or by this permit, within one (1) hour of the onset of the event. This report shall be communicated by phone (702) 455-5942, or by fax (702) 383-9994. *[AQR 25.2]*

30. The Permittee shall include a certification of truth, accuracy, and completeness by a responsible official when submitting any application form, report, or compliance certification pursuant to this operating permit. This certification and any other certification required shall state, "Based on the information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." This statement shall be followed by the signature and printed name of the responsible official certifying compliance and the date of signature. *[AQR 19.3.4]*

Performance Testing Requirements:

31. Upon request of the Control Officer, the Permittee shall test or have tests performed to determine the emissions of air contaminants from any source whenever the Control Officer has reason to believe that an emission in excess of that allowed by the DAQEM regulations is occurring. The Control Officer may specify testing methods to be used in accordance with good professional practice. The Control Officer may observe the testing. All tests shall be conducted by reputable, qualified personnel. The Control Officer shall (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) be given a copy of the test results in writing and signed by the person responsible for the tests. *[Authority: AQR 4.5]*

32. Any required performance testing is subject to 40 CFR 60 and DAQEM Guideline on Performance Testing. *[AQR 12.8.1.b]*

33. The Permittee shall submit for approval a performance testing protocol which contains test, reporting, and notification schedules, test protocols, and anticipated test dates to the DAQEM Control Officer and to the Enforcement Office of the US EPA, Region IX, at least 45 days prior to the anticipated test date but not more than 90 days prior to the anticipated test date. *[AQR 12.8.1.b]*

34. The Administrator shall consider approving the Permittee's request for alternative performance test methods if proposed in writing in the performance test protocols. *[AQR 12.8.1.b, 40 CFR 60 Subpart A]*

35. Initial performance tests shall be conducted within 60 days after achieving the maximum production rate at which the facility will be operated but no later than 180 days after initial startup. *[AQR 12.8.1.b]*

36. Upon request of the Control Officer, the Permittee shall provide necessary holes in stacks or ducts and such 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. *[AQR 4.6]*

37. A report describing the results of the performance test shall be submitted to the DAQEM Control Officer and to the Enforcement Office of the US EPA, Region IX, within 60 days from the end of the performance test. *[AQR 12.8.1.b]*

38. Pursuant to AQR Section 10, the Permittee of any stationary source or emission unit that fails to demonstrate compliance with the emissions standards or limitations during any subsequent performance test shall submit a compliance plan to the DAQEM Control Officer within 90 days from the end of the performance test. *[AQR 12.8.1.b]*

Record Keeping Requirements

39. For all Inspections, visible emission checks, and testing required under monitoring, logs, reports, and records shall include at least the date and time, the name of the person performing the action, the results or findings, and the type of corrective action taken (if required). *[AQR 12.8.1.f]*

40. If the source is normally unmanned during regular business hours, then such records shall be made available, at the site, to DAQEM by Noon (12 p.m.) of the next DAQEM business day. *[NSR ATC/OP Modification 46, Revision1, Condition II-19 (11/17/08)]*

41. All records and logs (or a copy thereof) required by this permit shall be kept on-site for a minimum of five (5) years from the date the measurement or data was entered. (Compliance with this condition also demonstrates compliance with *[AQR 52.7.a]*

42. Records and data required by this permit shall be maintained by the Permittee and may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[NSR ATC/OP Modification 46, Revision 1, Condition II-21 (11/17/08)]*

Reports and Reporting Requirements:

43. The Permittee is responsible for submitting quarterly and annual reports to DAQEM. *[AQR 12.8.1.e]*

44. All quarterly and annual report submissions shall be addressed to the attention of the DAQEM Control Officer. *[AQR 12.8.1.e]*

45. All quarterly and annual report submissions shall contain the following: *[AQR 12.8.1.e]*
    a. a certification statement on the first page, i.e., "I certify that, based on information and belief formed after reasonable inquiry, the statements contained in this document are true, accurate and complete."
    b. a certification signature from a responsible official of the company and the date certification.

46. The following requirements apply to quarterly reports: [AQR 12.8.1.e]
    a. The report shall include a quarterly summary of each item stipulated in the reporting conditions found in sections IV through XVIII, inconclusive.
    b. The report shall include a quarterly summary of any permit deviations.

c. The report shall be based on a calendar quarter, which includes partial calendar quarters.
d. The report shall be received by DAQEM within 30 calendar days after the calendar quarter. Regardless of the date of issuance of this permit, the Permittee shall comply with the following schedule for report submissions:

Table II-1: Quarterly Reporting Schedule

Quarter	Applicable Period	Due Date[1]	Required Contents
1	January, February, March	April 30 each year	Quarterly Report for 1st Calendar Quarter
2	April, May, June	July 30 each year	Quarterly Report for 2nd Calendar Quarter
3	July, August, September	October 30 each year	Quarterly Report for 3rd Calendar Quarter
4	October, November, December	January 30 each year	Quarterly Report for 4th Calendar Quarter, any additional annual records required.

[1]Each report must be received by DAQEM on or before the due date listed. If the due date falls on a Saturday, Sunday or a Federal or Nevada holiday, then the submittal is due on the next regularly scheduled business day.

47. The following requirements apply to annual emissions inventory reports: [AQR 12.8.1.e]
    a. The annual emissions inventory shall be received by DAQEM no later than March 31 after the reporting year.
    b. The Permittee shall submit the report to DAQEM.
    c. The report shall be addressed to the attention of the DAQEM Control Officer.
    d. The report shall include the emission factors and calculations used to determine the emissions from each permitted emission unit, even when an emission unit is not operated.

48. The Control Officer reserves the right to require additional reports and reporting to verify compliance with permit conditions, permit requirements and requirements of applicable regulations. *[AQR 12.8.1.e]*

III. SOURCE-WIDE PTE SUMMARY

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section III (11/17/08)]

1. Nellis AFB is a major source for NO_x, a synthetic minor source for CO and VOC, and a minor source for PM_{10}, SO_2, and HAPs.

Table III-1: Source-wide Emissions in Tons per Rolling 12-months

	PM_{10}	NO_X	CO	SO_2	VOC	HAPs
PTE Totals	**25.64**	**97.83**	**68.98**	**4.99**	**45.11**	**10.90**
Major Source Thresholds	**70**	**50/100[2]**	**70**	**100**	**50**	**25[3]**

[1]Includes exempt units, which are included in the natural gas usage cap.
[2]50 tons per rolling 12-months for major source status and 100 tons per rolling 12-months for potential offset requirements.
[3]25 tons for combination of all HAPs (no single HAP exceeds 10 tons) .

IV. STORAGE TANKS/LOADING RACKS/FUEL DISPENSING

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1 Section IV (11/17/08)]

A. Emission Units

Table IV-A-1: Emission Units, Tanks

EU	Description	SCC	Type[1]
J001	20,000 Gallon AST, Gasoline, Building 891	40400302	T2
J002	500 Gallon AST, Gasoline, Building 1590	40400302	T2
J003	2,000 Gallon AST, Gasoline, Building 10515	40400302	T2
J004	25,000 Gallon UST, Gasoline, Building 890	40603306	T2
J005	5,000 Gallon UST, Gasoline, Building 10318	40400302	T2
J011	420,000 Gallon AST with Internal Floating Roof, JP-8, Fuel Hydrant System,	40300154	T1
J012	420,000 Gallon AST with Internal Floating Roof, JP-8, Fuel Hydrant System, IFT	40300154	T1
J014	420,000 Gallon AST with Internal Floating Roof, JP-8, Kinder Morgan (KM) Tanks	40300154	T1
J015	420,000 Gallon AST with Internal Floating Roof, JP-8, Kinder Morgan Tanks	40300154	T1

[1]Billing Codes: DM = De minimis unit, T1 = Storage Tank> 40,000 gal, T2 = Underground Storage Tank - Gasoline.

Table IV-A-2: Emission Units, Loading Racks

EU	Description	SCC	Type[1]
J007	The Flightline, Forty-eight (48) Loading Racks, JP-8	25050000	DM
J008	Building 891, One (1) Loading Rack, Gasoline	25050000	P1
J009	Building 891, One (1) Loading Rack, Diesel/Biodiesel	25050000	DM

[1]Billing Codes: DM = De minimis unit, P1 = Process Equipment.

Table IV-A-3: Emission Units, Fuel Dispensing

EU	Description	SCC	Type[1]
J016	JP-8 Fuel Dispensing from USTs into Aerospace Ground Equipment (AGE), Building 235	40600601	DM
J017	JP-8 Fuel Dispensing from USTs into AGE, Building 267	40600601	DM
J018	Diesel/biodiesel Fuel Dispensing at Military Gas Station, Building 890 (9 Diesel Dispensing Nozzles)	40600603	DM
J019	Diesel/biodiesel Fuel Dispensing from AST at the Golf Course, Building 1590	40600601	DM
J020	Gasoline Dispensing from AST at Golf Course, Building 1590	40600601	DM
J021	Diesel/biodiesel Fuel Dispensing to Fuel JP-8 trucks, Building 2814	40600601	DM
J022	Diesel/biodiesel Fuel Dispensing to CE Vehicles, Building 10512	40600601	DM
J023	Gasoline Dispensing to CE Vehicles, Building 10515	40600601	DM
J024	Gasoline Dispensing from UST, Building 10318	40600601	DM
J025	Diesel/biodiesel Fuel Dispensing from UST, Building 10318	40600601	DM
J026-J034	Gasoline Dispensing at Military Gas Station, Building 891 (9 Single Hose, Single Product Nozzles)	40600603	DM

[1]Billing Codes: DM = De minimis unit, P1 = Process Equipment.

B. Emission Limitations and Standards

1. Emission Limits

a. Neither the actual nor the allowable emissions from each of these listed storage tanks, fuel loading racks, and dispensing operations shall exceed the calculated PTE listed below in Tables IV-B-4, IV-B-5, IV-B-6, IV-B-7, IV-B-8, or IV-B-9. *[AQR 12.8.1.a&f]*

Table IV-B-1: Production Limitations and PTE for Fuel Storage Tanks at NAFB (tons/rolling 12-months)[1]

EU	Building	Capacity (gal)	Fuel Type	Rolling 12-Month Throughput (gal/yr)	PTE	
					VOC (tons/rolling 12-months)	HAP (tons/rolling 12-months)
Aboveground Storage Tanks (AST)						
J001	891	20,000	Gasoline	3,000,000	Emissions from the storage tank (previously permitted under VR 9670 Mod 2) have been included in fuel dispensing emissions from EUs: J026 -J034	
J002	1590	500	Gasoline	30,000	0.25	1.30E-02
J003	10515	2000	Gasoline	95,999	0.71	3.70E-02
Underground Storage Tanks (UST)						
J004	890	25,000	Gasoline	3,000,000	Emissions from the storage tank (previously permitted under VR 9670 Mod 2) have been included in fuel dispensing emissions from EUs: J026 -J034	
J005	10318	5,000	Gasoline	95,999	0.45	2.32E-03
Internal Floating Roof Storage Tanks (IFR)						
J011	62121 (Fuel Hydrant)	420,000	JP-8	43,680,000	0.12	5.10E-03
J012	62122	420,000	JP-8	43,680,000	0.12	5.10E-03

EU	Building	Capacity (gal)	Fuel Type	Rolling 12-Month Throughput (gal/yr)	PTE	
					VOC (tons/rolling 12-months)	HAP (tons/rolling 12-months)
	(Fuel Hydrant)					
J014	KM Tanks	420,000	JP-8	42,000,000	0.11	4.67E-03
J015	KM Tanks	420,000	JP-8	42,000,000	0.11	4.67E-03

[1]Emissions are calculated using Tanks 4.09d software.

Table IV-B-2: Production Limitations and PTE for Fuel Loading Racks at NAFB (tons/rolling 12-months)[1]

EU	Location	Fuel Type	Rolling 12-month Fuel Throughput (gal/yr)	PTE	
				VOC (tons/rolling 12-months)	HAP (tons/rolling 12-months)
J007	941/1050 (8 racks)	JP-8	180,000,000	1.82	1.12E-05
J008	891 (1 rack)	Gasoline	200,000	0.58	3.02E-02
J009	891 (1 rack)	Diesel	7,300,000	0.07	1.15E-02

[1]Emissions are based on AP-42 Section 5.2.2.1.1.

Table IV-B-3: Production Limitations and PTE for Fuel Dispensing Operations at NAFB (tons/rolling 12-months)[1]

EU	Building	Fuel Type	Rolling 12-month Fuel Throughput (gal/yr)	PTE	
				VOC (tons/rolling 12-months)	HAP (tons/rolling 12-months)
J016	235	JP-8	416,000	0.19	8.07E-03
J017	267	JP-8	520,000	0.24	1.01E-02
J018	890	Diesel	712,329	0.33	5.63E-02
J019	1590	Diesel	182,500	0.08	1.44E-02
J020	1590	Gasoline	30,000	0.18	9.13E-03
J021	2814	Diesel	109,200	0.05	8.63E-03
J022	10512	Diesel	312,000	0.14	2.47E-02
J023	10515	Gasoline	95,999	0.56	2.92E-02
J024	10318	Gasoline	95,999	0.56	2.92E-02
J025	10318	Diesel	28,600	0.01	2.26E-03
J026-J034[2]	891	Gasoline	3,000,000	4.95	6.00E-02

[1]Emissions are calculated based on EPA AP-42 Section 5.
[2]Controlled emission factor which includes 95.0 percent control for Stage I and Stage II Equipment.

Table IV-B-4: Total Source PTE for Fueling Operations[1]

	PM_{10}	NO_X	CO	SO_X	VOC	HAP
Tons/rolling 12-months	**0.00**	**0.00**	**0.00**	**0.00**	**11.63**	**0.40**

[1]Emissions listed in this table are for information purposes only.

2. Production Limits

a. The rolling 12-month and monthly throughput listed for each fuel storage tank in Tables IV-B-1 and IV-B-5, respectively, shall be the enforceable limit.

b. The product noted for each storage tank in Table IV-B-1 shall be the only product stored in that storage tank.

Table IV-B-5: Production Limitations for Fuel Storage Tanks

EU	Building	Capacity (gal)	Fuel Type	Monthly Throughput (gal/month)
Aboveground Storage Tanks (AST)				
J001	891	20,000	Gasoline	500,000
J002	1590	500	Gasoline	5,000
J003	10515	2000	Gasoline	16,000
Underground Storage Tanks (UST)				
J004	890	25,000	Gasoline	500,000
J005	10318	5,000	Gasoline	16,000
Internal Floating Roof Storage Tanks (IFR)				
J011	62121 (Fuel Hydrant)	420,000	JP-8	7,280,000
J012	62122 (Fuel Hydrant)	420,000	JP-8	7,280,000
J014	KM Tanks	420,000	JP-8	7,000,000
J015	KM Tanks	420,000	JP-8	7,000,000

c. The rolling 12-month and monthly throughput listed for each fuel loading rack in Tables IV-B-2 and IV-B-6, respectively, shall be the enforceable limit.

d. The daily throughput for gasoline loading rack (EU: J008) shall not exceed 75,700 liters per day (19,997 gal/day).

e. The product noted for each fuel loading rack in Table IV-B-2 shall be the only product loaded in that loading rack.

Table IV-B-6: Production Limitations for Fuel Loading Racks

EU	Location	Fuel Type	Fuel Throughput (gal/month)
J007	941/1050 (8 racks)	JP-8	30,000,000
J008	891 (1 rack)	Gasoline	33,500
J009	891 (1 rack)	Diesel	1,250,000

f. The rolling 12-month and monthly throughput listed for each fuel dispensing emission unit in Tables IV-B-3 and IV-B-7, respectively, shall be the enforceable limit.

g. The product noted for each fuel-dispensing unit in Table IV-B-3 shall be the only product dispensed through that unit.

Table IV-B-7: Production Limitations for Fuel Dispensing Operations at NAFB

EU	Building	Fuel Type	Fuel Throughput (gal/month)
J016	235	JP-8	69,500
J017	267	JP-8	87,000
J018	890	Diesel	119,000
J019	1590	Diesel	30,500
J020	1590	Gasoline	5,000

EU	Building	Fuel Type	Fuel Throughput (gal/month)
J021	2814	Diesel	18,500
J022	10512	Diesel	52,000
J023	10515	Gasoline	16,000
J024	10318	Gasoline	16,000
J025	10318	Diesel	5,000
J026-J034	891	Gasoline	500,000

3. Emission Controls

a. The JP-8 fuel hydrant Tanks (EUs: J011 and J012) shall be equipped with Internal Floating Roofs and primary and secondary seals. *[AQR 12.8.1.d]*

b. The JP-8 KM Tanks (EUs: J014 and J015) shall each be equipped Internal Floating Roofs and Mechanical Shoe Seals. *[AQR 12.8.1.d]*

c. Gasoline storage tanks (EUs: J001 and J004) shall be equipped with CARB certified Phase I vapor recovery controls, and the gasoline dispensing units (EUs: J026-J034) shall be equipped with CARB certified Phase II vapor recovery controls. *[AQR 12.8.1.d]*

d. For the emission units subject to 40 CFR 63 Subparts BBBBBB and CCCCCC (EUs: J001 through J005 and J008), the Permittee shall comply with the requirements of the Subparts by January 10, 2011.

e. The Phase I Vapor Recovery System associated with EUs J001 and J004 shall be constructed in accordance with the "Two-Point Phase I Vapor Recovery System" drawing, and shall use components specified in the current CARB EO series VR-101. *[AQR 12.8.1.d and 40 CFR 63 Subpart CCCCCC,]*

f. The following general requirements apply to the Phase I Vapor Recovery systems at NAFB: *[AQR 52.4]*

   i. All gasoline tanks shall be connected to vapor return piping that has a minimum inside diameter of 3.0 inches as designated in the current CARB EO, as applicable.

   ii. The highest point of discharge from a submerged fill-pipe shall be no more than 6.0 inches from the tank bottom. *[AQR 12.8 and 55.5, and 40 CFR 63.11086(a)and 40 CFR 63.11117(b) (Subparts BBBBBB and CCCCCC)]*

   iii. Pursuant to AQR Section 12, all Phase I vapor recovery equipment shall be installed and operated in accordance with the manufacturer's specifications and certification requirements.

   iv. All Phase I vapor recovery equipment shall be maintained to be leak free, vapor tight, and in good working order.

   v. All Phase I vapor recovery equipment shall have a CARB-certified device, which prevents loosening or over tightening of the Phase I product adaptor.

g. The Permittee shall operate gasoline dispensers with a minimum HAP control efficiency of 95 percent on Emission Units J001 and J004. *[AQR 12.8.1.d and 40 CFR Section 63.11118 (d)]*

h. The Permittee shall meet the requirements of each management practice in Table 1 of Subpart CCCCCC (Attachment 1) for emission unit J005. *[40 CFR Section 63.11118]*

i. The Permittee shall ensure that cargo tanks unloading at the gasoline dispensing facility comply with the management practices in Table 2 (Attachment 2) of Subpart CCCCCC. *[40 CFR Section 63.11118 (d)]*

j. The source shall install, maintain and operate a pressure/vacuum vent valve on each system in accordance with the manufacturer's specifications. The pressure specifications for PV vent valves shall be:
   i. 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.
   ii. The total leak rate of all PV vent valves at the 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. *[AQR 12.8, 55.5 and 40 CFR 63.22228]*

k. The following requirements apply to the Phase II Vapor Recovery System (associated with EUs: J026-J034):
   i. The Phase II gasoline vapor control system shall be in accordance with the current CARB EO G-70-199 series and the current CARB EO G-70-52 series.
   ii. Only Emco Wheaton Model A4005 nozzles or equivalent CARB approved nozzle, are approved for the Phase II Gasoline Vapor Control System.
   iii. The gasoline product and vapor return hoses shall be coaxial.
   iv. The maximum allowable hose length shall be in accordance to the current CARB EO G-70-52 series.
   v. Breakaway hose(s) shall be CARB approved.
   vi. Pursuant to AQR Section 12, all Phase II vapor recovery equipment shall be installed and operated in accordance with the manufacturer's specifications and the current CARB EO G-70-52 series.
   vii. All Phase II vapor recovery equipment shall be maintained to be leak free, vapor tight, and in good working order. *[AQR 12.8.1.d]*

l. Each Balance Vapor Recovery System dispenser shall limit each nozzle's gasoline dispensing rate to the values listed in Table IV-B-8. Dispenser fuel flow restrictors shall be installed as necessary and must be CARB approved. *[AQR 12.8.1.d]*

Table IV-B-8: Phase II Balance Vapor Recovery Nozzle Requirements[1]

Model/Nozzle	Current CARB EO Series	GPM
Emco Wheaton A4005	G-70-52, G-70-199	6-10

[1] A/L Ratio not applicable to Balance Vapor Recovery Systems.

C. Monitoring

1. The Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal gaskets (for EUs: J011 and J012 only), slotted membranes and any sleeve seals each time the storage vessel is emptied and degassed, or every six months, whichever occurs first. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or (for EUs: J011 and J012 only) the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary to remedy any of these conditions before refilling the storage vessel with a VOL (EUs: J011, J012, J014, and J015). *[AQR 50.2.1]*

2. The Permittee shall conduct monthly external inspections of the storage tanks to identify any irregularities (EUs: J011, J012, J014, and J015). If irregularities are identified, the primary and secondary seals shall be visually inspected. *[AQR 12.8.1]*

3. The Permittee shall perform a monthly leak inspection of all equipment in gasoline service (EUs: J001 through J005 and J008) as defined in 40 CFR 63.11089 and 63.22200 as applicable. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. *[40 CFR 63 Subparts BBBBBB and CCCCCC]*

4. The Permittee shall conduct daily inspections for requirements listed in AQR Subsection 52.4 that are associated with the Phase I vapor recovery system to determine if components of the system are defective. *[AQR 12.8.1]*

5. The Permittee shall conduct daily inspections for requirements listed in AQR Subsections 52.4 and 52.6 that are associated with the Phase II vapor recovery system to determine if components of the system are defective. *[AQR 12.8.1]*

6. Pursuant to AQR Subsection 12.8.1, the Permittee shall conduct testing on the Vapor Control Systems associated with EUs: J001 and J004, listed in Table IV-B-1, and EUs: J026 through J034, listed in Table IV-B-3. *[AQR 4.5]*

7. 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: [AQR 12.8 and CFR 63.11086 (d) and 63.11116 (Subparts BBBBBB and CCCCCC)]

a. minimize gasoline spills;
b. clean up spills as expeditiously as practicable;
c. cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; and
d. minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

8. The following general testing requirements apply to the source:

a. Each tests shall be conducted in accordance with the applicable CARB Test Procedure that is required by the CARB EO. *[AQR 12.8.1.h]*
b. The Permittee shall give a 7-day written prior notice of the date of the test to the Control Officer. *[AQR 52.5.a.1]*
c. If, after the seven (7) days notice for an initially scheduled test, there is a delay (due to operational problems) in conducting any rescheduled test, the owner /operator shall submit a notice to the Control Officer at least 48 hours prior to any rescheduled test. *[AQR 52.5.a.5]*
d. Within 7 days from the end of an initial or annual test, the Permittee shall submit a report containing the results of such test to the Control Officer. *[AQR 52.5.a.2]*
e. Each test shall be conducted by a DAQEM-approved Certified Phase II Vapor Recovery Tester. [AQR 52.5.a.4]
f. If any test fails, then the affected portion of the GDO will be tagged “Out of Order” until corrective action has been taken and the retest passed. [AQR 52.5.f..4]

g. If the source fails a test, the Control Officer shall be notified within 24 hours or by 12:00 p.m. (Noon) of the Control Officer's next business day, whichever is sooner. Repairs to correct the defects shall be made and a retest scheduled with the Control Officer. The retest shall be scheduled within 10 calendar days of the failed test. If the repairs and retest cannot be accomplished within 10 calendar days, the Permittee must submit the reasons and a proposed date for retesting in writing to the Control Officer for approval. [AQR 12.8.1, AQR 52.2]

h. As a minimum, the Permittee shall annually conduct the tests listed in Table IV-C-1:

Table IV-C-1: Required Test Criterion: Vapor Recovery System *[AQR52.5.h.1]*

EU	Description	CARB Test Procedure	Standard
J004	Pressure decay/leak: vapor control system including nozzles and underground tanks	TP-201.3	Initial: 2" wc Final: Referenced Value
J001	Pressure decay/leak: vapor control system including aboveground tanks	TP-201.3B	Initial: 5" wc Final: Referenced Value
J026-J034	Dynamic Back Pressure: include all vapor piping from dispenser to the tanks	TP-201.4	0.35" wc @ 60 SCFH, N_2 0.62" wc @ 80 SCFH, N_2
J026-J034	Dispensing nozzle flow rate	As Specified in EO	10 gpm (max.)

i. Annual testing of the Vapor Recovery System shall be accomplished prior to the anniversary date of the previous test that the source passed. *[AQR 12.8.1.b]*

j. The Permittee shall implement changes to the existing vapor recovery system if any test results indicate such changes are necessary to maintain compliance with this permit. *[AQR 52.5.f.2]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information: *[AQR 12.8.1.h]*

a. excess emissions, notifications, malfunctions, leaks, leak testing etc. as required by 40 CFR 60.7, 60.502, 60.505, 63.11089, 63.11094, and 63.11095;

b. rolling 12-month product throughput for each storage tank in gallons to demonstrate compliance with corresponding emission limits;

c. daily throughput for gasoline loading rack (EU: J008);

d. log of maintenance and/or repair of the tanks;

e. a record of any maintenance on any part of the Phase I or Phase II equipment, including a general description of the maintenance;

f. the date and time the equipment was taken out-of-service

g. the date of repair or replacement;

h. a general description of the part location (pump, tank, nozzle number);

i. a description of the problem; and

j. the results of the daily inspections *[AQR 52.6].*

2. The Control Officer or the DAQEM-approved Certified Phase II Vapor Recovery Tester shall use an approved Audit Form to record the type of tests conducted, as well as, the results of the tests. An approved form may be obtained from the Control Officer or a DAQEM-approved Certified Phase II Vapor Recovery Tester. The Permittee shall retain the completed Audit Form for each test performed. *[AQR 12.8]*

3. A log book shall be used and shall be signed by the Permittee at the completion of each inspection. Each detection of a liquid or vapor leak shall be recorded in the log. An initial attempt to repair the leak shall be made as soon as practicable, but, no later than 5 calendar days after the leak is detected. If repairs cannot be completed within 5 days, the Permittee shall comply with 40 CFR 63.11089.c and .d. *[40 CFR 63 Subpart BBBBBB]*

4. The Permittee shall maintain records of all performance tests conducted. *[AQR 12.8.1 and 40 CFR 63.11125]*

5. All records, logs and data required to be maintained by this permit shall be kept on site for a minimum of five years. *[AQR 12.8 and 40 CFR 63.11125]*

6. Pursuant to 40 CFR 63 Subpart CCCCCC, the Permittee must submit an Initial Notification that the source is subject to the subpart within 15 days of commencing operation. Existing sources must submit an Initial Notification by May 9, 2008, or at the time source becomes subject to the control requirements in 40 CFR 63.11118. The Initial Notification must contain the information specified in paragraphs 1 through 3 of this section. The notification must be submitted to the EPA Region IX Office and DAQEM at the addresses provided in IX.H of this permit. *[40 CFR 63.11124.b.1]*

a. The name and address of the owner and the operator.
b. The address (i.e., physical location) of the GDO.
c. A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs .a through .c of 40 CFR 63.11118 that apply to the source.

7. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. The Permittee shall submit a report including the results of the annual testing within seven (7) days from the end of the test. The report shall be addressed to the attention of the Control Officer. The first page of text shall be a signed Annual Throughput Report and Certification Form. *[AQR 12.8.1.e]*

2. The Permittee shall submit a summary of items stipulated by Condition IV-D-1 in accordance with the reports and reporting requirements in Section II of this permit. *[AQR 12.8.1.e]*

3. The Permittee must submit a Notification of Compliance per 40 CFR Section 63.11086 (f) unless the Permittee meets the requirements of 40 CFR Section 63.11086 (g). *[40 CFR 63 Subpart BBBBBB]*

F. Testing

1. The Permittee shall comply with the general performance testing requirements in Section II of this permit. *[AQR 12.8.1.e]*

2. The Permittee shall comply with the applicable testing requirements contained in Section 63.11120. *[Section 63.11118 (e) (Subpart CCCCCC)]*

V. EXTERNAL COMBUSTION

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section V (11/17/08)]

A. Emission Units

Table V-A-1: Emission Units, Boilers and Water Heaters

EU	Building	Description	SCC	Type[1]
RB001	2	Raypak Boiler, M/N: H3-0400, S/N: 207197573, 0.399 MMBtu/hr, Natural Gas	10300603	F1
RB002	6	Rite Boiler, M/N: 700, S/N: 52198H, 0.45 MMBtu/hr, Natural Gas	10300603	DM
RB003	11	Raypak Boiler, M/N: N/A, S/N: 8821213, 3.0 MMBtu/hr, Natural Gas	10300603	DM
RB004	11	New Unit Boiler, M/N: TBD, S/N: TBD, 3.0 MMBtu/hr, Natural Gas	10300603	DM
RB005	47	Rheem Water Heater, M/N: E61-50R-045D, S/N: 401123663, 0.045 MMBtu/hr, Natural Gas	10300603	DM
RB006	66	Bradford White Water Heater, M/N: MI40T6EN12, S/N: C040611541, 0.04 MMBtu/hr, Natural Gas	10300603	DM
RB007	94	Raypak Boiler, M/N: 202T, S/N: 1250050, 0.199 MMBtu/hr, Natural Gas	10300603	DM
RB008	98	Thermodale Boiler, M/N: GWA-215, S/N: 9911, 0.215 MMBtu/hr, Natural Gas	10300603	DM
RB009	118	A. O. Smith Water Heater, M/N: BT80230, S/N: MA99-0798581-230, 0.075 MMBtu/hr, Natural Gas	10300603	DM
RB010	199	Armstrong Humidifier, M/N: GFH-100, S/N: 202, 0.133 MMBtu/hr, Natural Gas	10300603	DM
RB011	199	Armstrong Humidifier, M/N: GFH-100, S/N: 201, 0.133 MMBtu/hr, Natural Gas	10300603	DM
RB012	199	Armstrong Humidifier, M/N: GFH-100, S/N: 203, 0.133 MMBtu/hr, Natural Gas	10300603	DM
RB013	199	Rite Boiler, M/N: A650WG, S/N: 27930, 6.5 MMBtu/hr, Natural Gas	10300603	DM
RB014	200	Lochinvar Boiler, M/N: CHN0991, S/N: G04H00166648, 0.99 MMBtu/hr, Natural Gas	10300603	DM
RB015	200	Lochinvar Boiler, M/N: CHN0991, S/N: G04H00166647, 0.99 MMBtu/hr, Natural Gas	10300603	DM
RB016	201	Rite Boiler, M/N: 105W, S/N: 29456, 1.05 MMBtu/hr, Natural Gas	10300603	DM
RB017	202	Lochinvor Water Heater, M/N: CNR155-035-DF9, S/N: YF1660311, 0.155 MMBtu/hr, Natural Gas	10300603	DM
RB018	202	Lattner Boiler, M/N: HE, S/N: 52292, 0.97 MMBtu/hr, Natural Gas	10300603	F1
RB019	220	RBI Boiler, M/N: LB0400N0E2A0CA, S/N: 90436550, 0.399 MMBtu/hr, Natural Gas	10300603	DM
RB020	222	RBI Boiler, M/N: LB0400N0E2A0CA, S/N: 90436551, 0.399 MMBtu/hr, Natural Gas	10300603	DM

EU	Building	Description	SCC	Type[1]
RB021	224	RBI Boiler, M/N: LB0400N0E2A2CA, S/N: 100436593, 0.399 MMBtu/hr, Natural Gas	10300603	DM
RB022	226	RBI Boiler, M/N: 750, S/N: 9043543, 0.7 MMBtu/hr, Natural Gas	10300603	DM
RB023	232	Rite Boiler, M/N: A165, S/N: 8319082, 1.65 MMBtu/hr, Natural Gas	10300603	DM
RB024	232	RBI Boiler, M/N: FB 1750, S/N: 120437366, 1.75 MMBtu/hr, Natural Gas	10300603	DM
RB025	233	America Water Heater, M/N: MA75-80H, S/N: B2OK93, 0.076 MMBtu/hr, Natural Gas	10300603	DM
RB026	233	RBI Boiler, M/N: LB0225, S/N: 120437419, 0.225 MMBtu/hr, Natural Gas	10300603	DM
RB027	242	RBI Boiler, M/N: GWA-301, S/N: 3R7, 0.301 MMBtu/hr, Natural Gas	10300603	DM
RB028	242	RBI Boiler, M/N: FB 0750, S/N: 110437043, 0.75 MMBtu/hr, Natural Gas	10300603	DM
RB029	245	Ajax Boiler, M/N: WGH-2500S, S/N: 87-39903, 2.5 MMBtu/hr, Natural Gas	10300603	F1
RB030	245	Rite Boiler, M/N: 250, S/N: 1326B11, 2.5 MMBtu/hr, Natural Gas	10300603	DM
RB031	245	RBI Boiler, M/N: FB 1950, S/N: 120437381, 1.95 MMBtu/hr, Natural Gas	10300603	DM
RB032	245	RBI Boiler, M/N: FB 1950, S/N: 120437382, 1.95 MMBtu/hr, Natural Gas	10300603	DM
RB033	250	Thermopak Boiler, M/N: GWA-301, S/N: 3R8, 0.301 MMBtu/hr, Natural Gas	10300603	DM
RB133	252	Tennant Boiler, M/N: PNCH 400, S/N: TBD, 0.4 MMBtu/hr, Natural Gas	10300603	DM
RB134	252	RITE Boiler, M/N: PNCH 300, S/N: TBD, 0.301 MMBtu/hr, Natural Gas	10300603	DM
RB034	256	JBI Furnace, M/N: CFA-275, S/N: 225-4, 2.365 MMBtu/hr, Natural Gas	10300603	DM
RB035	256	JBI Furnace, M/N: CFA-275, S/N: 225-5, 2.365 MMBtu/hr, Natural Gas	10300603	DM
RB036	256	RBI Boiler, M/N: FB1950, S/N: 110436943, 1.95 MMBtu/hr, Natural Gas	10300603	F1
RB037	256	RBI Boiler, M/N: FB1950, S/N: 20537821, 1.95 MMBtu/hr, Natural Gas	10300603	DM
RB038	258	Thermodale Boiler, M/N: GWA-301, S/N: 3129, 0.301 MMBtu/hr, Natural Gas	10300603	DM
RB039	258	RBI Boiler, M/N: LB0400N0E2A2CA, S/N: 100436594, 0.399 MMBtu/hr, Natural Gas	10300603	DM
RB040	262	Patterson-Kelley Boiler, M/N: N-2000-2, S/N: CL47-02-24302, 2.0 MMBtu/hr, Natural Gas	10300603	DM
RB041	264	Thermopak Boiler, M/N: GWA559, S/N: 2R32, 0.559 MMBtu/hr, Natural Gas	10300603	DM
RB042	270	RBI Boiler, M/N: FB 0750, S/N: 110437044, 0.75 MMBtu/hr, Natural Gas	10300603	DM
RB043	270	RBI Boiler, M/N: FB 0750, S/N: 100436870, 0.75 MMBtu/hr, Natural Gas	10300603	DM
RB044	270	RBI Boiler, M/N: FB 0750, S/N: 120437333, 0.75 MMBtu/hr, Natural Gas	10300603	DM

EU	Building	Description	SCC	Type[1]
RB045	270	Rheem Water Heater, M/N: 6E706, S/N: VGNG0599176106, 0.036 MMBtu/hr, Natural Gas	10300603	DM
RB046	277	State Water Heater, M/N: PR075NRRT, S/N: E01308213, 0.075 MMBtu/hr, Natural Gas	10300603	DM
RB047	283	Bradford White Water Heater, M/N: MI40T6FBN4, S/N: AP4531669, 0.04 MMBtu/hr, Natural Gas	10300603	DM
RB048	285	Lochinvor Water Heater, M/N: RWN360PM, S/N: C014100, 0.36 MMBtu/hr, Natural Gas	10300603	F1
RB049	285	Parker Boiler, M/N: T2160, S/N: 52994, 1.995 MMBtu/hr, Natural Gas	10300603	DM
RB050	292	Parker Boiler, M/N: T-1995LR, S/N: N/A, 1.995 MMBtu/hr, Natural Gas	10300603	DM
RB051	295	Bradford White Water Heater, M/N: MI40T6FBN4, S/N: AC4384686, 0.04 MMBtu/hr, Natural Gas	10300603	DM
RB052	312	Ajax Boiler, M/N: WGB-2000, S/N: 73-26966, 2.0 MMBtu/hr, Natural Gas	10300603	DM
RB053	312	New Unit Boiler, M/N: TBD, S/N: TBD, 2.0 MMBtu/hr, Natural Gas	10300603	DM
RB054	340	Raypak Boiler, M/N: H9-1802, S/N: 405221558, 1.8 MMBtu/hr, Natural Gas	10300603	F1
RB055	362	Patterson-Kelley Boiler, M/N: N-700, S/N: AL26-03-25166, 0.7 MMBtu/hr, Natural Gas	10300603	DM
RB056	362	Bradford White Water Heater, M/N: MI40T6FBN4, S/N: AL5486141, 0.04 MMBtu/hr, Natural Gas	10300603	DM
RB057	415	A. O. Smith Water Heater, M/N: BTR 154 110, S/N: MM001000004, 0.154 MMBtu/hr, Natural Gas	10300603	DM
RB058	415	Ajax Boiler, M/N: WNG450, S/N: 54813, 0.45 MMBtu/hr, Natural Gas	10300603	DM
RB059	423	America Water Heater, M/N: CG32100T884N, S/N: TG6135042, 0.088 MMBtu/hr, Natural Gas	10300603	DM
RB060	425	Laars Boiler, M/N: DC1CB0007, S/N: 189076, 0.329 MMBtu/hr, Natural Gas	10300603	DM
RB061	432	Patterson Kelly Boiler, M/N: N-2000-2, S/N: N/A, 2.0 MMBtu/hr, Natural Gas	10300603	DM
RB062	432	Patterson Kelly Boiler, M/N: N-2000-2, S/N: N/A, 2.0 MMBtu/hr, Natural Gas	10300603	DM
RB063	432	Sellers Engr Boiler, M/N: 80HP-W-LN490, S/N: 101181, 3.348 MMBtu/hr, Natural Gas	10300603	DM
RB064	462	Ressanaire Furnace, M/N: HC-20TMI-521, S/N: 94-7391-1, 1.728 MMBtu/hr, Natural Gas	10300603	F1
RB065	467	Burnham Boiler, M/N: 3W-125-SPL-G-GP, S/N: 24943, 5.25 MMBtu/hr, Natural Gas	10300603	DM
RB066	467	Burnham Boiler, M/N: 3W-125-SPL-G-GP, S/N: 24351, 5.25 MMBtu/hr, Natural Gas	10300603	F1
RB067	536	Patterson-Kelley Boiler, M/N: N-700, S/N: AL22-03-25014, 0.7 MMBtu/hr, Natural Gas	10300603	DM
RB068	538	Weben Jarco Water Heater, M/N: AJH35, S/N: 4935, 0.35 MMBtu/hr, Natural Gas	10300603	DM
RB069	540	Jarco Water Heater, M/N: AJ435, S/N: AJ43535-3816, 0.35 MMBtu/hr, Natural Gas	10300603	DM
RB070	542	Raypak Boiler, M/N: W1468A-DCDRDEA, S/N: 789104891, 1.467 MMBtu/hr, Natural Gas	10300603	DM

EU	Building	Description	SCC	Type[1]
RB071	552	Futura/RBI Boiler, M/N: FWN1250E00, S/N: 11002410, 1.25 MMBtu/hr, Natural Gas	10300603	DM
RB072	552	Futura/RBI Boiler, M/N: FWN1250E00, S/N: 11002408, 1.25 MMBtu/hr, Natural Gas	10300603	DM
RB073	552	Futura/RBI Boiler, M/N: FWN1250E00, S/N: 11002407, 1.25 MMBtu/hr, Natural Gas	10300603	DM
RB074	552	Futura/RBI Boiler, M/N: FWN1250E00, S/N: 11002409, 1.25 MMBtu/hr, Natural Gas	10300603	DM
RB075	554	Rheem Water Heater, M/N: G100-Z70A, S/N: URNGOGO1G04386, 0.27 MMBtu/hr, Natural Gas	10300603	DM
RB076	554	Patterson-Kelley Boiler, M/N: N-700, S/N: AF31933365, 0.7 MMBtu/hr, Natural Gas	10300603	DM
RB077	556	Parker Boiler, M/N: T3900, S/N: 55743, 3.9 MMBtu/hr, Natural Gas	10300603	F1
RB078	556	Parker Boiler, M/N: T3900, S/N: 55744, 3.9 MMBtu/hr, Natural Gas	10300603	DM
RB079	556	Parker Boiler, M/N: T3900, S/N: 55745, 3.9 MMBtu/hr, Natural Gas	10300603	DM
RB080	567	Patterson Kelly Boiler, M/N: N-1500-2, S/N: N/A, 1.5 MMBtu/hr, Natural Gas	10300603	F1
RB081	567	Patterson Kelly Boiler, M/N: N-1500-2, S/N: N/A, 1.5 MMBtu/hr, Natural Gas	10300603	DM
RB082	584	Lochinvor Water Heater, M/N: CBN1700, S/N: D906792, 1.694 MMBtu/hr, Natural Gas	10300603	DM
RB083	584	New Unit Water Heater, M/N: TBD, S/N: TBD, 1.694 MMBtu/hr, Natural Gas	10300603	DM
RB084	584	Bradford White Water Heater, M/N: MI40T6FBN4, S/N: AJ5155040, 0.04 MMBtu/hr, Natural Gas	10300603	DM
RB085	585	Lochinvor Water Heater, M/N: CB-N1700, S/N: C906562, 1.694 MMBtu/hr, Natural Gas	10300603	DM
RB086	585	New Unit Water Heater, M/N: TBD, S/N: TBD, 1.694 MMBtu/hr, Natural Gas	10300603	DM
RB087	588	Bradford White Water Heater, M/N: MI40T6FBN4, S/N: AF4818726, 0.04 MMBtu/hr, Natural Gas	10300603	DM
RB088	589	Patterson-Kelley Boiler, M/N: N-700, S/N: AL26-03-25107, 0.7 MMBtu/hr, Natural Gas	10300603	F1
RB089	600	Parker Boiler, M/N: T1140LR, S/N: N/A, 1.14 MMBtu/hr, Natural Gas	10300603	DM
RB090	603	Seasons-4 Furnace, M/N: 1SSK53-1344-PN16-46HR, S/N: A 7397-0102 RTU-1, 1.65 MMBtu/hr, Natural Gas	10300603	DM
RB091	615	Teledyne Laars Boiler, M/N: HH0320MN20CBAKX, S/N: N/A, 0.32 MMBtu/hr, Natural Gas	10300603	DM
RB092	615	American Water Heater, M/N: G61-40T34-39, S/N: 9927117311, 0.034 MMBtu/hr, Natural Gas	10300603	DM
RB093	620	Lochinvar Boiler, M/N: OWN0495PM, S/N: C004038, 0.495 MMBtu/hr, Natural Gas	10300603	DM
RB094	620	Camus Boiler, M/N: MFNH 1600-E-02, S/N: 20501489, 1.6 MMBtu/hr, Natural Gas	10300603	DM
RB095	625	Raypak Boiler, M/N: H-401, S/N: 409225732, 0.399 MMBtu/hr, Natural Gas	10300603	DM
RB096	625	RBI Boiler, M/N: FHN12503-02, S/N: 30020547, 1.25 MMBtu/hr, Natural Gas	10300603	DM

EU	Building	Description	SCC	Type[1]
RB097	625	Patterson-Kelley Boiler, M/N: No Info., S/N: No Info., 1.25 MMBtu/hr,	10300603	DM
RB098	711	Rite Boiler, M/N: 300WG, S/N: 8821213, 3.0 MMBtu/hr, Natural Gas	10300603	F1
RB099	807	State Water Heater, M/N: PR650NBRT, S/N: C01112594, 0.04 MMBtu/hr, Natural Gas	10300603	DM
RB100	807	Rite Boiler, M/N: 275WG, S/N: 8921705, 2.0 MMBtu/hr, Natural Gas	10300603	DM
RB101	807	New Unit Boiler, M/N: TBD, S/N: TBD, 2.0 MMBtu/hr, Natural Gas	10300603	DM
RB102	811	Lochinvar Water Heater, M/N: ETN040, S/N: PM0518692, 0.034 MMBtu/hr, Natural Gas	10300603	DM
RB103	854	Ajax Boiler, M/N: WG350, S/N: 22J3-35-8W, 0.35 MMBtu/hr, Natural Gas	10300603	DM
RB104	868	Rupp Furnace, M/N: N/A, S/N: S85181, 3.025 MMBtu/hr, Natural Gas	10300603	DM
RB105	1032	A. O. Smith Boiler, M/N: BTR400110, S/N: MA040006660, 1.0 MMBtu/hr, Natural Gas	10300603	DM
RB106	1037	New Unit Water Heater, M/N: N/A, S/N: N/A, 1.0 MMBtu/hr, Natural Gas	10300603	DM
RB107	1100	American Water Htr Water Heater, M/N: G62-75T75-4NV, S/N: 401131700, 0.075 MMBtu/hr, Natural Gas	10300603	DM
RB108	1100	Patterson-Kelley Boiler, M/N: N700, S/N: AF13933032, 0.7 MMBtu/hr, Natural Gas	10300603	DM
RB109	1301	Fulton Boiler, M/N: VMP-W40, S/N: 101204, 1.595 MMBtu/hr, Natural Gas/diesel	10300603	DM
RB110	1301	Fulton Boiler, M/N: VMP-W40, S/N: 101257, 1.595 MMBtu/hr, Natural Gas/diesel	10300603	DM
RB111	1301	Fulton Boiler, M/N: VMP-W40, S/N: 101235, 1.595 MMBtu/hr, Natural Gas/diesel	10300603	F1
RB112	1301	Fulton Boiler, M/N: TCS-60, S/N: 101205, 2.52 MMBtu/hr, Natural Gas/diesel	10300603	DM
RB113	1301	Fulton Boiler, M/N: TCS-60, S/N: 101236, 2.52 MMBtu/hr, Natural Gas/diesel	10300603	DM
RB114	1301	Fulton Boiler, M/N: TCS-60, S/N: 101195, 2.52 MMBtu/hr, Natural Gas/diesel	10300603	F1
RB115	2999	Rite Boiler, M/N: 76, S/N: 24968, 0.75 MMBtu/hr, Natural Gas	10300603	DM
RB116	3362	Rheem Water Heater, M/N: 1PZ59, S/N: VGLN1201409025, 0.038 MMBtu/hr, Natural Gas	10300603	DM
RB117	10177	Rheem Water Heater, M/N: RHLN0200141342, S/N: 41VR40N, 0.04 MMBtu/hr, Natural Gas	10300603	DM
RB118	10206	Parker Boiler, M/N: 40L, S/N: N/A, 1.68 MMBtu/hr, Natural Gas	10300603	DM
RB119	10236	Lochinvor Boiler, M/N: CWW0475, S/N: H913330, 0.475 MMBtu/hr, Natural Gas	10300603	DM
RB120	10423	Lochinvar Boiler, M/N: RBN270-F9, S/N: N/A, 0.27 MMBtu/hr, Natural Gas	10300603	DM
RB121	10423	Boiler Water Heater, M/N: N/A, S/N: N/A, 0.05 MMBtu/hr, Natural Gas	10300603	DM
RB122	10650	Royce Indust Water Heater, M/N: 6225, S/N: 67035, 1.2 MMBtu/hr, Natural Gas	10300603	DM

EU	Building	Description	SCC	Type[1]
RB123	10650	Royce Indust Water Heater, M/N: 6225, S/N: 67036, 1.2 MMBtu/hr, Natural Gas	10300603	DM
RB135	SS	Natural Gas Boiler, M/N: TBD, S/N: TBD, 3.0 MMBtu/hr	10300603	DM
RB136	VMS	Natural Gas Boiler, M/N: TBD, S/N: TBD, 1.728 MMBtu/hr	10300603	DM
RB124	61664	Parker Boiler, M/N: T1460LR, S/N: N/A, 1.46 MMBtu/hr, Natural Gas	10300603	DM
RB125	61697	Parker Boiler, M/N: T760R, S/N: 55298, 0.76 MMBtu/hr, Natural Gas	10300503	DM
RB126	10304	Burnham Boiler, M/N: 4FF127507GP, S/N: 9947, 1.063 MMBtu/hr, Diesel	10300503	DM
RB127	10304	New Unit Boiler, M/N: TBD, S/N: TBD, 1.063 MMBtu/hr, Diesel	10300503	DM
RB128	10405	Whiel-Mclain Boiler, M/N: P-666HE-WT, S/N: CP1314447, 0.207 MMBtu/hr, Diesel	10300503	F1
RB129	10413	Oil Fired Boiler, M/N: N/A, S/N: N/A, 0.15 MMBtu/hr, Diesel	10300503	DM
RB130	10414	Oil Fired Boiler, M/N: N/A, S/N: N/A, 0.3 MMBtu/hr, Diesel	10300503	DM
RB131	10418	Columbia Boiler, M/N: WL60, S/N: N/A, 0.833 MMBtu/hr, Diesel	10300603	DM
RB132	10439	Ajax Boiler, M/N: WFG250, S/N: 55921, 0.125 MMBtu/hr, Propane	10300603	DM

[1]Type codes for billing: F1 = Fuel burning equipment; DM = De minimis unit (not subject to fees).

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from each external combustion unit to exceed the calculated PTE listed below in Table V-B-1. *[AQR 12.8.1.a&.f]*

b. The Permittee shall not allow visible emissions in excess of 20 percent opacity, as determined by conducting observations in accordance with EPA Method 9, from the emission units listed in Table V-A-1. *[AQR 12.8.1.c]*

Table V-B-1: Emission Units PTE[1]

EU	Rating	PM_{10}	NO_X	CO	SO_X	VOC	HAP
		tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
RB001	0.399 MMBtu/hr	0.01	0.17	0.14	0.01	0.01	3.23E-03
RB002	0.45 MMBtu/hr	0.01	0.19	0.16	0.01	0.01	3.65E-03
RB003	3.0 MMBtu/hr	0.1	1.29	1.08	0.01	0.07	2.43E-02
RB004	3.0 MMBtu/hr	0.1	0.64	1.08	0.01	0.07	2.43E-02
RB005	0.045 MMBtu/hr	0.01	0.02	0.02	0.01	0.01	3.65E-04
RB006	0.04 MMBtu/hr	0.01	0.02	0.01	0.01	0.01	3.24E-04
RB007	0.199 MMBtu/hr	0.01	0.09	0.07	0.01	0.01	1.61E-03
RB008	0.215 MMBtu/hr	0.01	0.09	0.08	0.01	0.01	1.74E-03
RB009	0.075 MMBtu/hr	0.01	0.03	0.03	0.01	0.01	6.08E-04
RB010	0.133 MMBtu/hr	0.01	0.06	0.05	0.01	0.01	1.08E-03
RB011	0.133 MMBtu/hr	0.01	0.06	0.05	0.01	0.01	1.08E-03
RB012	0.133 MMBtu/hr	0.01	0.06	0.05	0.01	0.01	1.08E-03
RB013[2]	6.5 MMBtu/hr	0.21	0.87	1.06	0.02	0.15	5.25E-02
RB014	0.99 MMBtu/hr	0.03	0.43	0.36	0.01	0.02	8.03E-03
RB015	0.99 MMBtu/hr	0.03	0.43	0.36	0.01	0.02	8.03E-03
RB016	1.05 MMBtu/hr	0.03	0.45	0.38	0.01	0.02	8.51E-03

EU	Rating	PM_{10}	NO_X	CO	SO_X	VOC	HAP
		tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
RB017	0.155 MMBtu/hr	0.01	0.07	0.06	0.01	0.01	1.26E-03
RB018	0.97 MMBtu/hr	0.03	0.42	0.35	0.01	0.02	7.86E-03
RB019	0.399 MMBtu/hr	0.01	0.17	0.14	0.01	0.01	3.23E-03
RB020	0.399 MMBtu/hr	0.01	0.17	0.14	0.01	0.01	3.23E-03
RB021	0.399 MMBtu/hr	0.01	0.17	0.14	0.01	0.01	3.23E-03
RB022	0.7 MMBtu/hr	0.02	0.3	0.25	0.01	0.02	5.67E-03
RB023	1.65 MMBtu/hr	0.05	0.71	0.60	0.01	0.04	1.34E-02
RB024	1.75 MMBtu/hr	0.06	0.38	0.63	0.01	0.04	1.42E-02
RB025	0.076 MMBtu/hr	0.01	0.03	0.03	0.01	0.01	6.16E-04
RB026	0.225 MMBtu/hr	0.01	0.1	0.08	0.01	0.01	1.82E-03
RB027	0.301 MMBtu/hr	0.01	0.13	0.11	0.01	0.01	2.44E-03
RB028	0.75 MMBtu/hr	0.02	0.32	0.27	0.01	0.02	6.08E-03
RB029	2.5 MMBtu/hr	0.08	1.07	0.90	0.01	0.06	2.03E-02
RB030	2.5 MMBtu/hr	0.08	1.07	0.90	0.01	0.06	2.03E-02
RB031	1.95 MMBtu/hr	0.06	0.42	0.70	0.01	0.05	1.58E-02
RB032	1.95 MMBtu/hr	0.06	0.42	0.70	0.01	0.05	1.58E-02
RB033	0.301 MMBtu/hr	0.01	0.13	0.11	0.01	0.01	2.44E-03
RB133	0.40 MMBtu/hr	0.01	0.17	0.14	0.01	0.01	3.23E-03
RB134	0.30 MMBtu/hr	0.01	0.13	0.11	0.01	0.01	2.44E-03
RB034	2.365 MMBtu/hr	0.08	1.02	0.85	0.01	0.06	1.92E-02
RB035	2.365 MMBtu/hr	0.08	1.02	0.85	0.01	0.06	1.92E-02
RB036	1.95 MMBtu/hr	0.06	0.42	0.70	0.01	0.05	1.58E-02
RB037	1.95 MMBtu/hr	0.06	0.42	0.70	0.01	0.05	1.58E-02
RB038	0.301 MMBtu/hr	0.01	0.13	0.11	0.01	0.01	2.44E-03
RB039	0.399 MMBtu/hr	0.01	0.17	0.14	0.01	0.01	3.23E-03
RB040	2.0 MMBtu/hr	0.07	0.43	0.72	0.01	0.05	1.62E-02
RB041	0.559 MMBtu/hr	0.02	0.24	0.20	0.01	0.01	4.53E-03
RB042	0.75 MMBtu/hr	0.02	0.16	0.27	0.01	0.02	6.08E-03
RB043	0.75 MMBtu/hr	0.02	0.16	0.27	0.01	0.02	6.08E-03
RB044	0.75 MMBtu/hr	0.02	0.16	0.27	0.01	0.02	6.08E-03
RB045	0.036 MMBtu/hr	0.01	0.02	0.01	0.01	0.01	2.92E-04
RB046	0.075 MMBtu/hr	0.01	0.03	0.03	0.01	0.01	6.08E-04
RB047	0.04 MMBtu/hr	0.01	0.02	0.01	0.01	0.01	3.24E-04
RB048	0.36 MMBtu/hr	0.01	0.15	0.13	0.01	0.01	2.92E-03
RB049	1.995 MMBtu/hr	0.07	0.43	0.72	0.01	0.05	1.62E-02
RB050	1.995 MMBtu/hr	0.07	0.43	0.72	0.01	0.05	1.62E-02
RB051	0.04 MMBtu/hr	0.01	0.02	0.01	0.01	0.01	3.24E-04
RB052	2.0 MMBtu/hr	0.07	0.86	0.72	0.01	0.05	1.62E-02
RB053	2.0 MMBtu/hr	0.07	0.46	0.72	0.01	0.05	1.62E-02
RB054	1.8 MMBtu/hr	0.06	0.39	0.65	0.01	0.04	1.46E-02
RB055	0.7 MMBtu/hr	0.02	0.15	0.25	0.01	0.02	5.67E-03
RB056	0.04 MMBtu/hr	0.01	0.02	0.01	0.01	0.01	3.24E-04
RB057	0.154 MMBtu/hr	0.01	0.07	0.06	0.01	0.01	1.25E-03
RB058	0.45 MMBtu/hr	0.01	0.19	0.16	0.01	0.01	3.65E-03
RB059	0.088 MMBtu/hr	0.01	0.04	0.03	0.01	0.01	7.13E-04
RB060	0.329 MMBtu/hr	0.01	0.14	0.12	0.01	0.01	2.67E-03
RB061	2.0 MMBtu/hr	0.07	0.43	0.72	0.01	0.05	1.62E-02
RB062	2.0 MMBtu/hr	0.07	0.43	0.72	0.01	0.05	1.62E-02
RB063	3.348 MMBtu/hr	0.11	0.72	1.21	0.01	0.08	2.71E-02
RB064	1.728 MMBtu/hr	0.06	0.74	0.62	0.01	0.04	1.40E-02

EU	Rating	PM_{10}	NO_X	CO	SO_X	VOC	HAP
		tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
RB065	5.25 MMBtu/hr	0.17	1.13	1.89	0.01	0.12	4.26E-02
RB066	5.25 MMBtu/hr	0.17	1.13	1.89	0.01	0.12	4.26E-02
RB067	0.7 MMBtu/hr	0.02	0.15	0.25	0.01	0.02	5.67E-03
RB068	0.35 MMBtu/hr	0.01	0.15	0.13	0.01	0.01	2.84E-03
RB069	0.35 MMBtu/hr	0.01	0.15	0.13	0.01	0.01	2.84E-03
RB070	1.467 MMBtu/hr	0.05	0.63	0.53	0.01	0.03	1.19E-02
RB071	1.25 MMBtu/hr	0.04	0.27	0.45	0.01	0.03	1.01E-02
RB072	1.25 MMBtu/hr	0.04	0.27	0.45	0.01	0.03	1.01E-02
RB073	1.25 MMBtu/hr	0.04	0.27	0.45	0.01	0.03	1.01E-02
RB074	1.25 MMBtu/hr	0.04	0.27	0.45	0.01	0.03	1.01E-02
RB075	0.27 MMBtu/hr	0.01	0.12	0.10	0.01	0.01	2.19E-03
RB076	0.7 MMBtu/hr	0.02	0.15	0.25	0.01	0.02	5.67E-03
RB077	3.9 MMBtu/hr	0.13	0.84	1.41	0.01	0.09	3.16E-02
RB078	3.9 MMBtu/hr	0.13	0.84	1.41	0.01	0.09	3.16E-02
RB079	3.9 MMBtu/hr	0.13	0.84	1.41	0.01	0.09	3.16E-02
RB080	1.5 MMBtu/hr	0.05	0.32	0.54	0.01	0.04	1.22E-02
RB081	1.5 MMBtu/hr	0.05	0.32	0.54	0.01	0.04	1.22E-02
RB082	1.694 MMBtu/hr	0.06	0.73	0.61	0.01	0.04	1.37E-02
RB083	1.694 MMBtu/hr	0.01	0.02	0.01	0.01	0.01	3.24E-04
RB084	0.04 MMBtu/hr	0.06	0.37	0.61	0.01	0.04	1.37E-02
RB085	1.694 MMBtu/hr	0.06	0.73	0.61	0.01	0.04	1.37E-02
RB086	1.694 MMBtu/hr	0.06	0.37	0.61	0.01	0.04	1.37E-02
RB087	0.04 MMBtu/hr	0.01	0.02	0.01	0.01	0.01	3.24E-04
RB088	0.7 MMBtu/hr	0.02	0.15	0.25	0.01	0.02	5.67E-03
RB089	1.14 MMBtu/hr	0.04	0.24	0.41	0.01	0.03	9.24E-03
RB090	1.65 MMBtu/hr	0.05	0.71	0.60	0.01	0.04	1.34E-02
RB091	0.32 MMBtu/hr	0.01	0.14	0.12	0.01	0.01	2.59E-03
RB092	0.034 MMBtu/hr	0.01	0.01	0.01	0.01	0.01	2.76E-04
RB093	0.495 MMBtu/hr	0.02	0.21	0.18	0.01	0.01	4.01E-03
RB094	1.6 MMBtu/hr	0.05	0.69	0.58	0.01	0.04	1.30E-02
RB095	0.399 MMBtu/hr	0.01	0.09	0.07	0.01	0.01	1.62E-03
RB096	1.25 MMBtu/hr	0.04	0.27	0.45	0.01	0.03	1.01E-02
RB097	1.25 MMBtu/hr	0.04	0.27	0.45	0.01	0.03	1.01E-02
RB098	3.0 MMBtu/hr	0.1	1.29	1.08	0.01	0.07	2.43E-02
RB099	0.04 MMBtu/hr	0.01	0.02	0.01	0.01	0.01	3.24E-04
RB100	2.0 MMBtu/hr	0.07	0.86	0.72	0.01	0.05	1.62E-02
RB101	2.0 MMBtu/hr	0.07	0.43	0.72	0.01	0.05	1.62E-02
RB102	0.034 MMBtu/hr	0.01	0.01	0.01	0.01	0.01	2.76E-04
RB103	0.35 MMBtu/hr	0.01	0.15	0.13	0.01	0.01	2.84E-03
RB104	3.025 MMBtu/hr	0.1	1.3	1.09	0.01	0.07	2.45E-02
RB105	1.0 MMBtu/hr	0.01	0.17	0.14	0.01	0.01	3.23E-03
RB106	1.0 MMBtu/hr	0.03	0.21	0.36	0.01	0.02	8.11E-03
RB107	0.075 MMBtu/hr	0.01	0.03	0.03	0.01	0.01	6.08E-04
RB108	0.7 MMBtu/hr	0.02	0.15	0.25	0.01	0.02	5.67E-03
RB109[3]	1.595 MMBtu/hr	0.05	0.68	0.58	0.04	0.04	1.00E-02
RB110[3]	1.595 MMBtu/hr	0.05	0.68	0.58	0.04	0.04	1.00E-02
RB111[3]	1.595 MMBtu/hr	0.05	0.68	0.58	0.04	0.04	1.00E-02
RB112[3]	2.52 MMBtu/hr	0.08	1.08	0.91	0.07	0.06	2.00E-02
RB113[3]	2.52 MMBtu/hr	0.08	1.08	0.91	0.07	0.06	2.00E-02
RB114[3]	2.52 MMBtu/hr	0.08	1.08	0.91	0.07	0.06	2.00E-02

EU	Rating	PM_{10}	NO_X	CO	SO_X	VOC	HAP
		tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
RB115	0.75 MMBtu/hr	0.02	0.32	0.27	0.01	0.02	6.08E-03
RB116	0.038 MMBtu/hr	0.01	0.02	0.01	0.01	0.01	3.08E-04
RB117	0.04 MMBtu/hr	0.01	0.02	0.01	0.01	0.01	3.24E-04
RB118	1.68 MMBtu/hr	0.05	0.36	0.61	0.01	0.04	1.36E-02
RB119	0.475 MMBtu/hr	0.02	0.2	0.17	0.01	0.01	3.86E-03
RB120	0.27 MMBtu/hr	0.01	0.12	0.10	0.01	0.01	2.19E-03
RB121	0.05 MMBtu/hr	0.01	0.02	0.02	0.01	0.01	4.06E-04
RB122	1.2 MMBtu/hr	0.04	0.52	0.43	0.01	0.03	9.75E-03
RB123	1.2 MMBtu/hr	0.04	0.52	0.43	0.01	0.03	9.75E-03
RB135	3.0 MMBtu/hr	0.10	0.32	0.49	0.01	0.07	2.42E-02
RB136	1.728 MMBtu/hr	0.06	0.28	0.56	0.01	0.04	1.40E-02
RB124	1.46 MMBtu/hr	0.05	0.31	0.53	0.01	0.03	1.18E-02
RB125	0.76 MMBtu/hr	0.02	0.33	0.27	0.01	0.02	6.18E-03
RB126[4]	1.063 MMBtu/hr	0.07	0.67	0.17	0.02	0.02	6.37E-04
RB127[4]	1.063 MMBtu/hr	0.07	0.34	0.17	0.02	0.02	6.37E-04
RB128[4]	0.207 MMBtu/hr	0.01	0.13	0.03	0.01	0.01	1.24E-04
RB129[4]	0.15 MMBtu/hr	0.01	0.09	0.02	0.01	0.01	8.98E-05
RB130[4]	0.3 MMBtu/hr	0.02	0.19	0.05	0.01	0.01	1.80E-04
RB131[4]	0.833 MMBtu/hr	0.05	0.52	0.13	0.02	0.01	4.99E-04
RB132[5]	0.125 MMBtu/hr	0.01	0.08	0.01	0.01	0.01	0.01

[1]Emissions are based on emission factors for small boilers from AP-42, Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4 unless noted otherwise.
[2]NO_X and CO emissions are based on manufacturer's data.
[3]Emissions are based on worst-case scenario of 8,760 hours/year of natural gas firing or 1,020 hours/rolling 12-months of #2 diesel fuel firing.
[4]Emissions are based on emissions factors provided by AP-42, Tables 1.3-1, 1.3-3, 1.3-9 (for HAPs), and 1.3-10 (HAPs) for small distillate oil-fired boilers. Conversion Factor 140 MMbtu/Mgal.
[5]Emissions are based on emissions factors provided by AP-42, Tables 1.5-1 for LPG combustion. Conversion Factor 91.5 MMBtu/Mgal.

Table V-B-2: Source PTE from External Combustion Units

PM_{10}	NO_X	CO	SO_X	VOC	HAP
tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
0.85	**9.88**	**8.29**	**1.10**	**0.55**	**0.25**

2. Production Limits

a. Each of the six (6) dual fuel boilers located at Building #1301 (EUs: RB109 through RB114), shall be permitted to operate without hour limitations on natural gas firing. *[AQR 12.8.1.d]*

b. Each of the six (6) dual fuel boilers located at Building #1301 (EUs: RB109 through RB114), shall be permitted to operate up to 1,020 hours per rolling, twelve-month period on #2 diesel fuel. *[AQR 12.8]*

c. The total amount natural gas consumed by source's external combustion units shall not exceed 238,082 scf per hour nor 180 MMscf in any twelve-month period, recalculated monthly. *[AQR 12.8]*

d. The total amount of diesel fuel consumed by source's boilers shall exceed neither 142 gallons per hour nor 289,943 gallons in any twelve-month period, recalculated monthly. *[AQR 12.8]*

e. Emission units RB001 through RB108, RB115 through RB125, and RB133 through RB136, shall combust only natural gas. *[AQR 12.8.1.d]*

f. Each of the six (6) dual fuel boilers located at Building #1301 (EUs: RB109 through RB114) shall combust either natural gas or #2 diesel fuel with less than 0.05 percent sulfur by weight. *[AQR 12.8.1.d]*

g. The diesel boilers shall combust only low sulfur diesel fuel, with sulfur content not exceeding 0.05 percent by weight (EUs: RB126 through RB131, and EB143 through EB147). *[AQR 12.8.1.d]*

h. All boilers/water heaters shall be operated and maintained in accordance with the manufacturer's specifications (EUs: RB001 through RB132). *[AQR 12.8.1.d]*

3. Emission Controls

a. The boilers listed in Table V-B-3 shall each be equipped with low-NO_X burners and/or flue gas recirculation (FGR), as listed in the table, as control devices. *[AQR 12.8.1.d]*

Table V-B-3: Boilers Equipped with Control Devices

EU	Rating	Control Device(s)
RB003	3.0 MMBtu/hr	Low-NO_X burner
RB004	3.0 MMBtu/hr	Low-NO_X burner
RB013	6.5 MMBtu/hr	Low-NO_X burner and flue gas recirculation
RB014	0.99 MMBtu/hr	Low-NO_X burner
RB015	0.99 MMBtu/hr	Low-NO_X burner
RB016	1.05 MMBtu/hr	Low-NO_X burner
RB024	1.75 MMBtu/hr	Low-NO_X burner
RB030	2.5 MMBtu/hr	Low-NO_X burner
RB031	1.95 MMBtu/hr	Low-NO_X burner
RB032	1.95 MMBtu/hr	Low-NO_X burner
RB036	1.95 MMBtu/hr	Low-NO_X burner
RB037	1.95 MMBtu/hr	Low-NO_X burner
RB040	2.0 MMBtu/hr	Low-NO_X burner
RB042	0.75 MMBtu/hr	Low-NO_X burner
RB043	0.75 MMBtu/hr	Low-NO_X burner
RB044	0.75 MMBtu/hr	Low-NO_X burner
RB049	1.995 MMBtu/hr	Low-NO_X burner
RB050	1.995 MMBtu/hr	Low-NO_X burner
RB052	2.0 MMBtu/hr	Low-NO_X burner
RB053	2.0 MMBtu/hr	Low-NO_X burner
RB054	1.8 MMBtu/hr	Low-NO_X burner
RB055	0.7 MMBtu/hr	Low-NO_X burner
RB061	2.0 MMBtu/hr	Low-NO_X burner
RB062	2.0 MMBtu/hr	Low-NO_X burner
RB063	3.348 MMBtu/hr	Low-NO_X burner
RB065	5.25 MMBtu/hr	Ability to achieve 30 ppm NO_X
RB066	5.25 MMBtu/hr	Ability to achieve 30 ppm NO_X
RB071	1.25 MMBtu/hr	Low-NO_X burner
RB072	1.25 MMBtu/hr	Low-NO_X burner
RB073	1.25 MMBtu/hr	Low-NO_X burner
RB074	1.25 MMBtu/hr	Low-NO_X burner
RB076	0.7 MMBtu/hr	Low-NO_X burner
RB077	3.9 MMBtu/hr	Low-NO_X burner
RB078	3.9 MMBtu/hr	Low-NO_X burner
RB079	3.9 MMBtu/hr	Low-NO_X burner
RB080	1.5 MMBtu/hr	Low-NO_X burner

EU	Rating	Control Device(s)
RB081	1.5 MMBtu/hr	Low-NO_X burner
RB082	1.694 MMBtu/hr	Low-NO_X burner
RB083	1.694 MMBtu/hr	Low-NO_X burner
RB085	1.694 MMBtu/hr	Low-NO_X burner
RB086	1.694 MMBtu/hr	Low-NO_X burner
RB088	0.7 MMBtu/hr	Low-NO_X burner
RB089	1.14 MMBtu/hr	Low-NO_X burner
RB090	1.65 MMBtu/hr	Low-NO_X burner
RB094	1.6 MMBtu/hr	Low-NO_X burner
RB096	1.25 MMBtu/hr	Low-NO_X burner
RB097	1.25 MMBtu/hr	Low-NO_X burner
RB098	3.0 MMBtu/hr	Low-NO_X burner
RB100	2.0 MMBtu/hr	Low-NO_X burner
RB101	2.0 MMBtu/hr	Low-NO_X burner
RB104	3.025 MMBtu/hr	Low-NO_X burner
RB106	1.0 MMBtu/hr	Low-NO_X burner
RB108	0.7 MMBtu/hr	Low-NO_X burner
RB118	1.68 MMBtu/hr	Low-NO_X burner
RB122	1.2 MMBtu/hr	Low-NO_X burner
RB123	1.2 MMBtu/hr	Low-NO_X burner
RB124	1.46 MMBtu/hr	Low-NO_X burner
RB126	1.063 MMBtu/hr	Low-NO_X burner
RB127	1.063 MMBtu/hr	Low-NO_X burner
RB135	3.0 MMBtu/hr	Low-NO_X burner
RB136	1.728 MMBtu/hr	Ability to achieve 30 ppm NO_X

b. Each of boilers listed in Table V-B-4 shall not emit, in the exhaust stream, more than its corresponding NO_X and CO emission limitations presented in the table. *[AQR 12.8.1.c]*

Table V-B-4: NO_X and CO Concentration Limitations for Source's Boilers

EU	Rating	NO_X (ppmvd @ 3% O_2)	CO (ppmvd @ 3% O_2)
RB003	3.0 MMBtu/hr	20	50
RB004	3.0 MMBtu/hr	20	50
RB013	6.5 MMBtu/hr	25	50
RB016	1.05 MMBtu/hr	30	100
RB024	1.75 MMBtu/hr	30	100
RB030	2.5 MMBtu/hr	20	50
RB031	1.95 MMBtu/hr	30	100
RB032	1.95 MMBtu/hr	30	100
RB036	1.95 MMBtu/hr	30	100
RB037	1.95 MMBtu/hr	30	100
RB040	2.0 MMBtu/hr	30	100
RB049	1.995 MMBtu/hr	20	50
RB050	1.995 MMBtu/hr	20	50
RB053	2.0 MMBtu/hr	30	100
RB054	1.8 MMBtu/hr	30	100
RB061	2.0 MMBtu/hr	20	50
RB062	2.0 MMBtu/hr	20	50
RB063	3.348 MMBtu/hr	20	50
RB065	5.25 MMBtu/hr	30	400
RB066	5.25 MMBtu/hr	30	400

EU	Rating	NO_X (ppmvd @ 3% O_2)	CO (ppmvd @ 3% O_2)
RB071	1.25 MMBtu/hr	30	100
RB072	1.25 MMBtu/hr	30	100
RB073	1.25 MMBtu/hr	30	100
RB074	1.25 MMBtu/hr	30	100
RB077	3.9 MMBtu/hr	20	50
RB078	3.9 MMBtu/hr	20	50
RB079	3.9 MMBtu/hr	20	50
RB080	1.5 MMBtu/hr	20	50
RB081	1.5 MMBtu/hr	20	50
RB082	1.694 MMBtu/hr	30	100
RB083	1.694 MMBtu/hr	30	100
RB085	1.694 MMBtu/hr	30	100
RB086	1.694 MMBtu/hr	30	100
RB089	1.14 MMBtu/hr	20	50
RB090	1.65 MMBtu/hr	30	100
RB094	1.6 MMBtu/hr	30	100
RB098	3.0 MMBtu/hr	20	50
RB100	2.0 MMBtu/hr	30	100
RB101	2.0 MMBtu/hr	30	100
RB104	3.025 MMBtu/hr	20	50
RB106	1.0 MMBtu/hr	30	100
RB118	1.68 MMBtu/hr	20	50
RB122	1.2 MMBtu/hr	30	100
RB123	1.2 MMBtu/hr	30	100
RB124	1.46 MMBtu/hr	20	50
RB126	1.063 MMBtu/hr	30	100
RB127	1.063 MMBtu/hr	30	100
RB135	3.0 MMBtu/hr	20	50
RB136	1.728 MMBtu/hr	30	100

C. Monitoring

1. Each of the boilers/water heaters described in Table V-B-1 shall be equipped with a non-resettable hour or gas meter to demonstrate compliance with the fuel limits. *[AQR 12.8.1.d]*

2. The Permittee shall conduct a visible emissions check on the exhaust stack of each boiler at least quarterly while the boiler is operating. For the purposes of this permit, a visible emission check is verification that abnormal emissions are not present at the exhaust stack. Corrective action shall be immediately taken to correct causes of fugitive emissions in excess of allowable opacity limits. *[AQR 12.8.1.c]*

3. If the observer, during the visible emissions check, does not see any plume that, on an instantaneous basis, appears to exceed the opacity standard, then the observer shall keep a record of the name of the observer, the date on which the observation was made, the location, and the results of the observation. *[AQR 12.8.1.c]*

4. If the observer sees a plume that, on an instantaneous basis, appears to exceed the opacity standard, then the Permittee shall have a certified VE observer take an EPA Method 9 observation of the plume. *[AQR 12.8.1.c]*

5. If Method 9 readings cannot be obtained, the observer shall also indicate in the log: a) the color of the emissions, b) whether the emissions were light or heavy, c) the cause of the abnormal emissions, and d) any corrective action taken. *[AQR 12.8.1.c]*

6. Visible emissions observations do not require a certified VE observer, except where visible emissions appear to exceed the allowable opacity limit and exceed 30 seconds in duration. *[AQR 12.8.1.c]*

7. All opacity observations that require observation with EPA Method 9 shall be performed by observers that hold a valid Visible Emissions (VE) certificate. *[AQR 12.8.1.c]*

8. Records and data required by this permit and maintained by the Permittee and may be audited, at the Permittee's expense, at any time by a third party selected by the Control Officer. *[AQR 12.8.1.d]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information: *[40 CFR 60.7-60.11, AQR 12.8.1.h]*

a. monthly readings of the main natural gas fuel meter;
b. monthly readings of the natural gas fuel meter that correspond to comfort heating and other usage at the base not associated with stationary source emissions;
c. monthly hour or gas meter readings of each of the boilers/water heaters with Low-NO_x and/or FGR control technologies.
d. monthly calculations to derive fuel usage for all natural gas-fired boilers with Low-NO_x and/or FGR control technologies.
e. monthly fuel usage details of all natural gas- fired, uncontrolled boilers/water heaters including exempt units and calculations to derive the fuel usage.
f. monthly calculations to demonstrate compliance with limits.
g. monthly amount of #2 diesel fuel consumed (in gallons) by the dual fuel boilers located in Building #1301 on a rolling, twelve-month average basis (EUs: RB109 through RB114);
h. monthly amount of #2 diesel fuel consumed (in gallons) by the diesel boilers (EUs: EB143 through EB147, and RB126 through RB131) on a rolling, twelve-month average basis; and
i. records of any performance testing and boiler tune-ups.

2. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. The Permittee shall submit a summary of items stipulated by Condition V-D-1 in accordance with the reports and reporting requirements in Section II of this permit. *[AQR 12.8.1.e]*

F. Testing

1. Performance testing may be required by the Control Officer with the following performance testing requirements: *[AQR 4.5]*

Table V-F-1: Performance Testing Protocol Requirements

Test Point	Pollutant	Method
Boiler Exhaust Outlet Stack	NO_X	EPA Method 7E
Boiler Exhaust Outlet Stack	CO	EPA Method 10 analyzer
Stack Gas Parameters	-	EPA Methods 1, 2, 3A, and 4

2. The Permittee shall comply with the general performance testing requirements in Section II of this permit. [AQR 12.8.1.e]

VI. INTERNAL COMBUSTION

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section VI (11/17/08)]

A. Emission Units

Table VI-A-1: Emission Units - Generators

EU	Description	SCC	Type[1]
G001	Onan Generator, M/N: 35DGBB, S/N: F970690597, 68 hp, Bldg 2	20100101	DM
G002	Onan Generator, M/N 250DFC-5628120, S/N G030523516, 317 hp, Bldg 6	20100101	DM
G003	Cummins Generator, M/N: DGCB-5664728, S/N: CO40611541, 99 hp, Bldg 47	20100101	DM
G004	Caterpillar Fire Pump, M/N: 3306B, S/N: 64Z0870, 287 hp, Bldg 199	20100101	DM
G005	Onan Generator, M/N: 350DFCC, S/N: K950593560, 535 hp, Bldg 200	20100101	EE1
G006	Onan Generator, M/N: 350DFCC, S/N: H960614359, 535 hp, Bldg 200	20100101	EE1
G007	Onan Generator, M/N: 350DFCC, S/N: 30370204, 535 hp, Bldg 200	20100101	EE1
G008	Kohler Generator, M/N: 1200D560, S/N: 365684, 1,750 hp, Bldg 201	20100101	EE2
G009	Onan Generator, M/N: D1250FRV4, S/N: WA535055, 1,250 hp, Bldg 202	20100101	EE1
G010	Onan Generator, M/N: DFHC-5586668, S/N: L020451403, 1,350 hp, Bldg 215	20100101	EE1
G011	Onan Generator, M/N: 250DFAC, S/N: H970645976, 380 hp, Bldg 216	20100101	DM
G012	Onan Generator, M/N: DFCC-5586711, S/N: L020451856, 535 hp, Bldg 217	20100101	EE1
G013	Cummins Fire Pump, M/N: N855F, S/N: 10164265, 350 hp, Bldg 256	20100101	DM
G014	Caterpillar Generator, M/N: 3412, S/N: 81Z15171, 676 hp, Bldg 276	20100101	EE1
G015	Onan Generator, M/N: 30.0DL6-15R/24510D, S/N: H870917822, 50 hp, Bldg 277	20100101	DM
G016	Caterpillar Fire Pump, M/N: 3208, S/N: 03Z04601, 235 hp, Bldg 283	20100101	DM
G017	Detroit Diesel Fire Pump, M/N: 503348-012, S/N: 3D0300584, 35 hp, Bldg 431	20100101	DM
G018	Cummings Generator, M/N: 285HC4AL/2A, S/N: 30730, 390 hp, Bldg 589	20100101	DM
G019	Onan Generator, M/N: DGAB-4485844, S/N: H000145362, 380 hp, Bldg 603	20100101	DM
G021	Onan Generator, M/N: DGFC-5690289, S/N: H040682522, 317 hp, Bldg 620	20100101	DM
G022	Onan Generator, M/N: 60.0DGCB-L, S/N: K870946221, 99 hp, Bldg 807	20100101	DM
G023	Onan Generator, M/N 80.0DGDA, S/N: H930515481, 170 hp, Bldg 809	20100101	DM
G024	Cummins Generator, M/N DGGD-5564189, S/N: G020391974, 50 hp, Bldg 812	20100101	DM
G025	Onan Generator, M/N: DGBB, S/N: F010251383, 68 hp, Bldg 814	20100101	DM
G026	Onan Generator, M/N: 60DGCA-4494082, S/N: A010195339, 99 hp, Bldg 830	20100101	DM
G027	Libby Generator, M/N: MEP-9B, S/N: RZ00787, 268 hp, Bldg 841	20100101	DM
G028	Onan Generator, M/N: DGCA-4494082, S/N: A010195338, 99 hp, Bldg 856	20100101	DM
G029	Onan Generator, M/N: DGCB-5679848, S/N: H040677994, 99 hp, Bldg 890	20100101	DM

EU	Description	SCC	Type[1]
G030	Onan Generator, M/N: DGFA, S/N: F010251389, 277 hp, Bldg 941	20100101	DM
G031	Cummins Generator, M/N: DFCA, S/N: H970645976, 380 hp, Bldg 941	20100101	DM
G032	Caterpillar Generator, M/N: 3512TA, S/N: 5TD01138, 1,593 hp, Bldg 1301	20100101	EE2
G033	Caterpillar Generator, M/N: 3512TA, S/N: 5TD01144, 1,593 hp, Bldg 1301	20100101	EE2
G034	Onan Generator, M/N: 35DGBB, S/N: H980789624, 68 hp, Bldg 1602	20100101	DM
G035	Generac Generator, M/N: 3543120400, S/N: 2074369, 80 hp, Bldg 1606	20100101	DM
G036	Waukesha Water Pump, M/N: VRD220SU, S/N: 365170, 67 hp, Bldg 1998	20100101	DM
G037	Onan Generator, M/N: 250DFAC, S/N: L990035025, 380 hp, Bldg 2060	20100101	DM
G038	Onan Generator, M/N: 150.0DGFA-L, S/N: J890274327, 277 hp, Bldg 2064	20100101	DM
G039	Libby Generator, M/N: MEP-6A, S/N: DZ03721, 80 hp, Bldg 2068	20100101	DM
G040	Onan Generator, M/N: DGCB-4477253, S/N: C0000075370, 68 hp, Bldg 2345	20100101	DM
G041	Onan Generator, M/N: 900.0DFJC, S/N: K910434479, 1,340 hp, Bldg 10307	20100101	EE1
G042	Perkins Deluge Pump, M/N: YB70326, S/N: Y721785F, 160 hp, Bldg 10460	20100101	DM
G043	Leroy Somer Generator, M/N: A43.2 L6 J6/4, S/N: GL103727/39, 78 hp, Bldg 10558	20100101	DM
G044[2]	Onan Generator, M/N: DGBB-5586668, S/N: J020424648, 68 hp, Bldg 10770	20100101	CE1
G046	Onan Generator, M/N: DGDB-5673920, S/N: F040652185, 170 hp, Bldg 61663	20100101	DM
G047	Onan Generator, M/N: 175.0DGFB, S/N: F010250889, 277 hp, Bldg 61664	20100101	DM
G048	Cummins Deluge Pump, M/N: 6BTA5-9-F1, S/N: 44954338, 182 hp, Bldg 61672	20100101	DM
G049	Cummins Deluge Pump, M/N: 6BTA5-9-F1, S/N: 44958692, 182 hp, Bldg 61672	20100101	DM
G050	Onan Generator, M/N: DCAC-5634769, S/N: K030567407, 380 hp, Bldg 61697	20100101	DM
G051	Caterpillar Generator, M/N: 3456, S/N: N/A, 418 hp, Fuel Hydrant	20100101	DM

[1]Billing Codes: DM = De minimis unit, EE1 = Stationary Emergency IC Engine 500-1,500 hp, EE2 = Stationary Emergency IC Engine 1,501 hp and up, CE1 = Stationary IC Engine 35-350 hp.
[2]Full duty generator, limited to 2,080 hours per rolling 12-months.

Table VI-A-2: Aircraft Arrestors Emission Units

EU	Description	SCC	Type[1]
G052	Wisconsin Arrestor, M/N: V465D, S/N: N/A, 65 hp, Outside South 1	20100101	DM
G053	Wisconsin Arrestor, M/N: V465D, S/N: N/A, 65 hp, Outside South 2	20100101	DM
G054	Wisconsin Arrestor, M/N: V465D, S/N: N/A, 65 hp, Outside North 1	20100101	DM
G055	Wisconsin Arrestor, M/N: V465D, S/N: N/A, 65 hp, New Building	20100101	DM
G056	Wisconsin Arrestor, M/N: V465D, S/N: N/A, 65 hp, Inside South 1	20100101	DM
G057	Wisconsin Arrestor, M/N: V465D, S/N: N/A, 65 hp, Inside South 2	20100101	DM
G058	Wisconsin Arrestor, M/N: V465D, S/N: N/A, 65 hp, Inside South O/R 1	20100101	DM
G059	Wisconsin Arrestor, M/N: V465D, S/N: N/A, 65 hp, Inside South O/R 2	20100101	DM
G060	Wisconsin Arrestor, M/N: V465D, S/N: N/A, 65 hp, Inside North 1	20100101	DM
G061	Wisconsin Arrestor, M/N: V465D, S/N: N/A, 65 hp, Inside North 2	20100101	DM
G062	Wisconsin Arrestor, M/N: V465D, S/N: N/A, 65 hp, Inside North O/R 1	20100101	DM
G063	Wisconsin Arrestor, M/N: V465D, S/N: N/A, 65 hp, New	20100101	DM

[1]Billing Codes: DM = De minimis unit.

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from each internal combustion engine to exceed the calculated PTE listed below in Table VI-B-1. *[AQR 12.8.1.a]*

b. The Permittee shall comply with the opacity standards that are applicable in 40 CFR 60 Subpart IIII, or shall not exceed 20 percent, whichever is most stringent, as determined by conducting observations in accordance with EPA Method 9, for the emission units listed in Tables VI-A-1 and VI-A-2. *[AQR 12.8.1.c]*

Table VI-B-1: PTE for Generators (tons per rolling 12-months)

EU	Rating (bhp)	PM_{10}	NO_X	CO	SO_2	VOC	HAP
G001	68	0.01	0.05	0.03	0.01	0.01	0.01
G002	317	0.03	0.47	0.10	0.03	0.04	0.01
G003	99	0.01	0.15	0.03	0.01	0.01	0.01
G004	287	0.02	0.24	0.05	0.02	0.02	0.01
G005	535	0.01	0.52	0.13	0.03	0.02	0.01
G006	535	0.01	0.52	0.13	0.03	0.02	0.01
G007	535	0.01	0.52	0.13	0.03	0.02	0.01
G008	1,750	0.06	2.00	0.46	0.01	0.06	0.01
G009	1,250	0.06	1.91	0.44	0.01	0.06	0.01
G010	1,350	0.01	1.07	0.03	0.01	0.03	0.01
G011	380	0.02	0.37	0.04	0.02	0.02	0.01
G012	535	0.01	0.52	0.13	0.03	0.02	0.01
G013	350	0.02	0.29	0.06	0.02	0.02	0.01
G014	676	0.02	0.77	0.18	0.01	0.02	0.01
G015	50	0.01	0.07	0.02	0.01	0.01	0.01
G016	235	0.01	0.19	0.04	0.01	0.02	0.01
G017	35	0.01	0.03	0.01	0.01	0.01	0.01
G018	390	0.02	0.44	0.03	0.03	0.01	0.01
G019	380	0.02	0.37	0.04	0.02	0.02	0.01
G021	317	0.01	0.12	0.02	0.03	0.01	0.01
G022	99	0.01	0.10	0.01	0.01	0.01	0.01
G023	170	0.01	0.16	0.04	0.02	0.01	0.01
G024	50	0.01	0.07	0.02	0.01	0.01	0.01
G025	68	0.01	0.05	0.03	0.01	0.01	0.01
G026	99	0.01	0.10	0.01	0.01	0.01	0.01
G027	268	0.03	0.40	0.09	0.03	0.03	0.01
G028	99	0.01	0.10	0.01	0.01	0.01	0.01
G029	99	0.01	0.10	0.01	0.01	0.01	0.01
G030	277	0.01	0.16	0.02	0.02	0.01	0.01
G031	380	0.02	0.37	0.04	0.02	0.02	0.01
G032	1,593	0.05	1.82	0.42	0.01	0.05	0.01
G033	1,593	0.05	1.82	0.42	0.01	0.05	0.01
G034	68	0.01	0.05	0.03	0.01	0.01	0.01
G035	80	0.01	0.12	0.03	0.01	0.01	0.01
G036	67	0.01	0.06	0.01	0.01	0.01	0.01
G037	380	0.02	0.37	0.04	0.02	0.02	0.01
G038	277	0.01	0.16	0.02	0.02	0.01	0.01
G039	80.4	0.01	0.12	0.03	0.01	0.01	0.01
G040	68	0.01	0.10	0.02	0.01	0.01	0.01
G041	1,340	0.01	1.69	0.06	0.08	0.02	0.01

EU	Rating (bhp)	PM_{10}	NO_X	CO	SO_2	VOC	HAP
G042	160	0.01	0.13	0.03	0.01	0.01	0.01
G043	78	0.01	0.12	0.03	0.01	0.01	0.01
G044	68	0.17	1.23	0.79	0.11	0.01	0.01
G046	170	0.01	0.13	0.03	0.01	0.01	0.01
G047	277	0.01	0.16	0.02	0.02	0.01	0.01
G048	182	0.01	0.15	0.03	0.01	0.01	0.01
G049	182	0.01	0.15	0.03	0.01	0.01	0.01
G050	380	0.02	0.37	0.04	0.02	0.02	0.01
G051	418	0.01	0.29	0.01	0.01	0.01	0.01

Table VI-B-2: PTE for Aircraft Arrestors (pounds per hour)

EU	Rating (bhp)	PM_{10}	NO_X	CO	SO_2	VOC	HAP
G052	65	0.05	0.72	28.54	0.04	0.98	0.01
G053	65	0.05	0.72	28.54	0.04	0.98	0.01
G054	65	0.05	0.72	28.54	0.04	0.98	0.01
G055	65	0.05	0.72	28.54	0.04	0.98	0.01
G056	65	0.05	0.72	28.54	0.04	0.98	0.01
G057	65	0.05	0.72	28.54	0.04	0.98	0.01
G058	65	0.05	0.72	28.54	0.04	0.98	0.01
G059	65	0.05	0.72	28.54	0.04	0.98	0.01
G060	65	0.05	0.72	28.54	0.04	0.98	0.01
G061	65	0.05	0.72	28.54	0.04	0.98	0.01
G062	65	0.05	0.72	28.54	0.04	0.98	0.01
G063	65	0.05	0.72	28.54	0.04	0.98	0.01

Table VI-B-3: PTE for Aircraft Arrestors (tons per rolling 12-months)[1]

EU	Rating (bhp)	PM_{10}	NO_X	CO	SO_2	VOC	HAP
G052	65	0.01	0.08	3.17	0.01	0.11	0.01
G053	65	0.01	0.08	3.17	0.01	0.11	0.01
G054	65	0.01	0.08	3.17	0.01	0.11	0.01
G055	65	0.01	0.08	3.17	0.01	0.11	0.01
G056	65	0.01	0.08	3.17	0.01	0.11	0.01
G057	65	0.01	0.08	3.17	0.01	0.11	0.01
G058	65	0.01	0.08	3.17	0.01	0.11	0.01
G059	65	0.01	0.08	3.17	0.01	0.11	0.01
G060	65	0.01	0.08	3.17	0.01	0.11	0.01
G061	65	0.01	0.08	3.17	0.01	0.11	0.01
G062	65	0.01	0.08	3.17	0.01	0.11	0.01
G063	65	0.01	0.08	3.17	0.01	0.11	0.01

[1]Tons per rolling 12-months sum is based on a maximum of 1,900 hours per rolling 12-months total.

Table VI-B-4: PTE for All Internal Combustion Activities (tons per rolling 12-months)

	PM_{10}	NO_X	CO	SO_2	VOC	HAPs
Emergency Generators and Fire/Deluge Pumps	0.96	21.27	4.47	0.93	0.88	0.49
Aircraft Arrestors [2]	0.05	0.68	27.11	0.04	0.93	0.01
Exempt Generators[1]	0.02	0.14	0.04	0.01	0.01	0.01
Totals	**1.03**	**22.09**	**31.62**	**0.98**	**1.82**	**0.51**

[1]For informational purposes only.
[2]rolling 12-months emissions for the aircraft arrestors are capped at an equivalent of 1,900 hours per rolling 12-months collectively.

2. Production Limits

a. Each generator is permitted to operate up to 90 hours per rolling 12-months for testing and maintenance purposes. *[AQR 12.8.c]*

b. Each fire pump/deluge pump (EUs: G004, G013, G016, G017, G036, G042, G048 and G049) is permitted to operate up to 50 hours per rolling 12-months for testing and maintenance purposes. *[AQR 12.8.c]*

c. The full duty generator (EU: G044) is permitted to operate up to 2,080 hours annual. *[AQR 12.8.c]*

d. Each aircraft arrestor (EUs: G052 through G063, inclusive) is permitted to operate up to 225 hours per rolling 12-months and a maximum of 1,900 hours per rolling 12-months, collectively. *[AQR 12.8.c]*

e. All generators and fire pumps shall combust low sulfur (< 0.05 percent) diesel fuel or JP-8 fuel only. *[AQR 12.8.c]*

f. The aircraft arrestors shall combust gasoline only. *[AQR 12.8.c]*

3. Emission Controls

a. All generators greater than 100 hp (EUs: G002, G004 through G010, inclusive, G011 through G014, inclusive, G016, G018, G019, G021, G023, G027, G030, G031, G037, G038, G042, and G044 through G051, inclusive) shall be equipped with a turbocharger and aftercooler. [AQR 12.8.1.d]

b. All generators shall be operated and maintained in accordance with the manufacturer's recommendations. *[AQR 12.8.1.c]*

C. Monitoring

1. The Permittee shall conduct a visible emissions check on the exhaust stack of each generator at least quarterly while the generator is operating. For the purposes of this permit, a visible emission check is verification that abnormal emissions are not present at the generator stack. Corrective action shall be immediately taken to correct causes of fugitive emissions in excess of allowable opacity limits. [AQR 12.8.1.c]

2. If the observer, during the visible emissions check, does not see any plume that, on an instantaneous basis, appears to exceed the opacity standard, then the observer shall keep a record of the name of the observer, the date on which the observation was made, the location, and the results of the observation. [AQR 12.8.1.c]

3. If the observer sees a plume that, on an instantaneous basis, appears to exceed the opacity standard, then the Permittee shall have a certified VE observer take an EPA Method 9 observation of the plume. [AQR 12.8.1.c]

4. If Method 9 readings cannot be obtained, the observer shall also indicate in the log" a) the color of the emissions, b) whether the emissions were light or heavy, c) the cause of the abnormal emissions, and d) any corrective action taken. [AQR 12.8.1.c]

5. Visible emissions observations do not require a certified VE observer, except where visible emissions appear to exceed the allowable opacity limit and exceed 30 seconds in duration. [AQR 12.8.1.c]

6. All opacity observations that require observation with EPA Method 9 shall be performed by observers that hold a valid Visible Emissions (VE) certificate. [AQR 12.8.1.c]

7. The Permittee shall demonstrate compliance with the hourly emissions limitations for the internal combustion emission units by maintaining a log of the maintenance and testing activities inclusive of the date, the type of fuel consumed, and the start and stop time of each emergency generator, fire pump, and aircraft arrestor. *[AQR 12.8.1.d]*

8. The Permittee shall demonstrate compliance with emission limitations for the full duty generator located at Building 10770 (EU: G044) by maintaining a log of the hours of operation and type of fuel consumed by this generator. *[AQR 12.8.1.d]*

9. Records and data required by this permit to be maintained by Permittee may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[AQR 12.8.1.d]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information: [40 CFR 60.7-60.11, AQR 12.8.1.h]

a. excess emissions, notifications, malfunctions;
b. audit results and corrective actions as required by 40 CFR 60 Appendix F;
c. the dates and time of the visible emissions check, the name of the person conducting the check, the results of the check, and the type of corrective action taken (if required);
d. monthly hours of operation and type of fuel consumed by each of the internal combustion engines and aircraft arrestors used for testing and maintenance purposes, and separately for use during emergencies;
e. monthly hours of operation and type of fuel consumed by the full duty internal combustion engine located at building 10770 (G044);
f. manufacturer's certification of sulfur content in diesel fuel and JP-8 fuel; and
g. the results of any performance testing.

2. The Permittee shall comply with the general record keeping requirements in Section II of this permit. [AQR 12.8.1.e*]*

E. Reporting

1. The Permittee shall submit a summary of items stipulated by Condition VI-D-1 in accordance with the reports and reporting requirements in Section II of this permit. [AQR 12.8.1.e]

F. Testing

1. The Permittee shall comply with the general performance testing requirements in Section II of this permit. [AQR 12.8.1.e]

VII. HUSH HOUSE

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section VII (11/17/08)]

A. Emission Units

Table VII-A-1: Emission Units, Internal Combustion

EU#	Description	Type
N001	Hush House, Building 61633	P1
N002	Hush House, Building 61637	P1

[1]Billing Codes: P1 = Process Equipment.

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from the hush house operations to exceed the calculated PTE listed below in Tables VII-B-1 and VII-B-2. *[AQR 12.8.1.a]*

b. The Permittee shall not allow visible emissions in excess of the 20 percent opacity standard, as determined by conducting observations in accordance with EPA Method 9, from the hush houses listed in Table VII-A-1. *[AQR 12.8.1.c]*

Table VII-B-1: PTE, Pounds per Hour

Aircraft Engines	Power Setting	PM_{10}	NO_X	CO	SO_2	VOC
F100-PW-220	Idle	4.29	9.61	73.57	2.08	16.56
	Military	12.87	283.79	8.32	9.68	17.33
	AB-1	47.93	348.88	499.77	41.68	63.77
F100-PW-229	Idle	2.24	4.13	11.03	1.09	0.41
	Military	15.28	662.40	7.58	11.49	6.21
	AB-1	23.92	1058.78	1593.16	20.79	338.09
F119-PW-100	Idle	3.43	4.10	66.30	1.37	9.40
	Military	20.92	368.80	14.00	18.63	0.01
	AB-1	20.92	369.80	807.70	49.97	9.30

Table VII-B-2: PTE, Tons per Rolling 12-months

Aircraft Engines	Power Setting	PM_{10}	NO_X	CO	SO_2	VOC
F100-PW-220	Idle	0.52	1.15	8.83	0.25	1.99
	Military	0.77	17.03	0.50	0.58	1.04
	AB-1	0.50	3.49	5.00	0.42	0.64
F100-PW-229	Idle	0.17	0.31	0.83	0.08	0.03
	Military	0.57	24.84	0.28	0.43	0.23
	AB-1	0.10	4.24	6.37	0.08	1.35
F119-PW-100	Idle	0.09	0.10	1.66	0.03	0.24
	Military	0.26	4.61	0.18	0.23	0.01
	AB-1	0.06	1.11	2.42	0.15	0.03

Table VII-B-3: PTE for All Hush House Activity at NAFB

Emission Rate	Pollutant					
	PM_{10}	NO_X	CO	SO_2	VOC	HAPs
Lbs/hr[1]	**95.86**	**2,117.56**	**3,186.32**	**99.94**	**676.18**	**6.48**
Tons/yr	**3.04**	**56.88**	**26.07**	**2.26**	**5.54**	**1.11**

[1]Pound per hour emissions based on worst-case emissions in a one-hour time period operating both hush houses at the same time. (For informational purposes only.)

Table VII-B-4: HAPs PTE, Aircraft Engine Testing

HAPs	lbs/hr	tons/yr
Formaldehyde	1.653441	0.568986665

HAPs	lbs/hr	tons/yr
Acetaldehyde	0.183924	0.161800953
Acrolein	0.49807	0.0612493
Isobutyraldehyde	0.916038	0.044957561
Naphthalene	0.00009425	0.04075799
Benzene	0.1636087	0.0772981
Toluene	0.087757	0.035375
Ethylbenzene	0.0294094	0.010463532
Xylenes	0.109987	0.100234
Styrene	0.043025	0.004073
Total HAPs	**3.24**	**1.11**

2. Production Limitations

a. The maximum annual time in mode of operation for each engine type testing in the hush houses listed in Table VII-B-5 shall be enforceable limits.

b. The maximum fuel flow rate listed in Table VII-B-6 shall be the enforceable limit for aircraft engine type tested in the hush houses.

Table VII-B-5: Maximum Annual Mode Hours for Each Type of Engine Test Conducted in Hush Houses at NAFB

Type of Engine	Time in Mode (Hours per Rolling 12-months)		
	Idle	Military	Afterburner
F100-PW-220	240	120	20
F100-PW-229	150	75	8
F119-PW-100	50	25	6

Table VII-B-6: Maximum Fuel Flow Rate for Each Type of Engine Test Conducted in Hush Houses at NAFB

Aircraft Engines	Power Setting	Fuel Flow Rate (lbs/hr)
F100-PW-220	Idle	2,084
	Military	9,679
	AB-1	41,682
F100-PW-229	Idle	1,087
	Military	11,490
	AB-1	20,793
F119-PW-100	Idle	1,367
	Military	18,626
	AB-1	49,973

3. Emission Controls

a. The Permittee shall implement best management practices that result in compliance, at a minimum, with AQR Sections 26, 40, and 43. *[AQR 12.8.1.d]*

b. The Permittee shall combust only JP-8 or diesel fuel with a sulfur content equal to or less than 0.5 percent sulfur by weight. *[AQR 12.8.1.d]*

C. Monitoring

1. Continued compliance with the emission limitations specified in this permit shall be verified by accepted emission factors, operational parameters, performance test data or alternate method(s) approved by DAQEM. *[AQR 12.8.1.d]*

2. The Permittee shall demonstrate compliance with the hour limits, listed in Table VII-B-5, for jet engine testing in the hush houses, by maintaining a log of the start and stop time, type of engine and the mode of operation for each engine test. *[AQR 12.8.1.d]*

3. The Permittee shall conduct a visible emissions check on the exhaust stack of each hush house at least monthly while performing jet engine testing. For the purposes of this permit, a visible emission check is verification that abnormal emissions are not present at the exhaust stack. Corrective action shall be immediately taken to correct causes of fugitive emissions in excess of allowable opacity limits. *[AQR 12.8.1.c]*

4. If the observer, during the visible emissions check, does not see any plume that, on an instantaneous basis, appears to exceed the opacity standard, then the observer shall keep a record of the name of the observer, the date on which the observation was made, the location, and the results of the observation. *[AQR 12.8.1.c]*

5. If the observer sees a plume that, on an instantaneous basis, appears to exceed the opacity standard, then the Permittee shall have a certified VE observer take an EPA Method 9 observation of the plume. *[AQR 12.8.1.c]*

6. If Method 9 readings cannot be obtained, the observer shall also indicate in the log" a) the color of the emissions, b) whether the emissions were light or heavy, c) the cause of the abnormal emissions, and d) any corrective action taken. *[AQR 12.8.1.c]*

7. Visible emissions observations do not require a certified VE observer, except where visible emissions appear to exceed the allowable opacity limit and exceed 30 seconds in duration. *[AQR 12.8.1.c]*

8. All opacity observations that require observation with EPA Method 9 shall be performed by observers that hold a valid Visible Emissions (VE) certificate. *[AQR 12.8.1.c]*

9. Compliance with the opacity limitation shall be demonstrated by maintaining a log showing at least, the dates and time when observations are taken and the steps taken to make any needed corrections to bring opacity into compliance. *[AQR 12.8.1.d]*

10. The Permittee shall monitor the flow rate of the fuel used during engine testing by use of a flow meter or other method approved by the Control Officer.

11. Any exceedance in any maximum fuel flow rate outlined in Table VII-B-6 shall be reported to the Control Officer within five (5) working days. *[AQR 12.8.1.d]*

12. The Control Officer reserves the right to request the Permittee at any time to demonstrate that the fuel flow rates outlined in Table VII-B-6 are maximum operating parameters. *[AQR 12.8.1.d]*

13. Records and data required by this permit to be maintained by the Permittee may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[AQR 12.8.1.d]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information: *[40 CFR 60.7-60.11, AQR 12.8.1.h]*

a. excess emissions and any corrective actions taken as a result of the excess emissions;

b. the dates and time of the visible emissions check, the name of the person conducting the check, the results of the check, and the type of corrective action taken (if required);

c. the date, start and stop time, type of engine, and time in mode for each engine tested;

d. vendor certification(s) per delivery of the sulfur content of the diesel and JP-8 fuel designated for aircraft engine testing; and
e. the results of any performance testing.

2. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. The Permittee shall submit a summary of items required by Condition VII-D-1 in accordance with the reports and reporting requirements in Section II of this permit. [AQR 12.8.1.e]

F. Testing

1. The Permittee shall comply with the general performance testing requirements in Section II of this permit. [AQR 12.8.1.e]

VIII. LANDFILL

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section VIII (11/17/08)]

A. Emission Units

Table VIII-A-1: Fugitive Emission Activities

EU#	Description	SCC	Type[1]
I001	Type III Landfill	50100404	DM
I002	Paved Haul Road Travel	30502504	H1
I003	Unpaved Haul Road	30501404	H1
I004	Disturbed Area	2311020100	S1

[1]Billing Codes: DM = De minimis unit; H1 = Haul Road; S1 = Disturbed Surfaces and Stockpiles.

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions in the landfill operations to exceed the calculated PTE listed below in Table VIII-B-1. *[AQR 12.8.1.a]*
b. The Permittee shall not allow visible emissions in excess of the 20 percent opacity standard, as determined by conducting observations in accordance with EPA Method 9, from the emission units and activities listed in Table VIII-B-1. *[AQR 12.8.1.c]*

Table VIII-B-1: Total PTE for All Activities at Landfill

Emission Unit	Activity	Tons per Day	Tons per Rolling 12-months	PM_{10} Emission Factor	Control Efficiency	Emissions (lbs/day)	Emissions (tons/rolling 12-months)
I001	Excavating	100	3,000	0.08 (lb/ton)	81.5%[2]	1.48	0.02
	Unloading	100	3,000	0.04 (lb/ton)	81.5%[2]	0.74	0.01

Emission Unit	Activity	Tons per Day	Tons per Rolling 12-months	PM_{10} Emission Factor	Control Efficiency	Emissions (lbs/day)	Emissions (tons/rolling 12-months)
	Transferring	100	3,000	0.04 (lb/ton)	81.5%[2]	0.74	0.01
I002	Paved Haul Road	0.9 mile/round trip		7.57 (lb/VMT)	98 %	13.63	0.20
I003	Unpaved Haul Road	0.3 mile/round trip		7.57 (lb/VMT)	90%	22.71	0.34
I004	Disturbed Area	18.98 Acres		1.66 (lb/acre-day)	81.5%	5.83	1.06
Totals[1]						**45.13[1]**	**1.64[1]**

[1]For informational purposes only.
[2]Assumes 1.5 percent moisture content.

2. Production Limits

a. The amount of material disposed of at the site shall be limited to 100 tons per day (182 cubic yards per day) and 3,000 tons per rolling 12-months (5,454 cubic yards per rolling 12-months).

b. The total vehicle miles traveled (VMT) from vehicle traffic shall be limited to 90 miles per day and 2,700 miles per rolling 12-months on the paved portion of the haul road to the landfill, and 30 miles per day and 900 miles per rolling 12-months on the unpaved portion of the haul road to the landfill.

c. The construction debris collection area at Nellis Air Force Base (NAFB) shall meet requirements of its Class III landfill permit. *[AQR 12.8.1.d]*

d. The construction debris collection area shall not be open to the general public. *[AQR 12.8.1.d]*

e. The landfill shall be limited to the disposal of construction debris as defined as inert building materials and wastes, noncontaminated soils, landscaping waste (i.e. tree and grass clippings), asphalt and concrete. *[AQR 12.8.1.d]*

3. Emission Controls

a. All construction debris released from trucks shall be watered prior to release such that the moisture contents of all materials less than one-quarter inch in diameter meet or exceed 1.5 percent moisture content. *[AQR 12.8.1.c]*

b. The Permittee shall maintain a water truck at the site during unloading, transferring of the landfill material, and excavation activities. *[AQR 12.8.1.d]*

c. The Permittee shall perform a visible emissions check when in use, and shall investigate any occurrence of visible fugitive dust. Corrective action shall be immediately taken to correct causes of fugitive dust in excess of allowable opacity limits. *[AQR 12.8.1.d]*

d. At the end of each day that material has been added to the landfill, the material shall be compacted and covered with soil. Water shall be used to form a crust on the covered material. *[AQR 12.8.1.d]*

e. Water application or soil stabilization palliatives shall be applied to unpaved haul roads to control fugitive dust emissions. *[AQR 12.8.1.d]*

f. Vehicle speed of haul trucks shall be limited to 15 miles per hour. *[AQR 12.8.1.d]*

g. Control measures shall be considered effectively implemented when stabilization observations for fugitive dust emissions from roads comply with the opacity standard of 20 percent as determined by conducting observations in accordance with EPA Method 9; when silt loading is not greater than 0.33 ounces per square foot; or when silt content is not greater than six (6) percent silt content. *[AQR 12.8.1.c]*

h. During high wind events (20 knots or higher), areas will be watered where a visible plume is produced. Soil-disturbing activities which create a visible plume of 20 percent or greater will be ceased until adequate control measures can be undertaken to reduce the visible emissions below 20 percent. *[AQR 12.8.1.d]*

i. No odors shall be released by the operation of the landfill. The Control Officer shall deem the odor occurrence a violation if he is able to detect the odor twice within a period of one (1) hour, if the odor is of such a nature as to cause a nuisance, and these detections being separated by at least 15 minutes. *[AQR 12.8.1.d](Not Federally Enforceable)*

C. Monitoring

1. Compliance with the minimum moisture contents contained within this permit shall be demonstrated by conducting and recording sampling and analysis of materials less than one-quarter inch in diameter in accordance with ASTM Standard C 566-97: Standard Test Method for Total Moisture Content of Aggregate by Drying. Once each calendar quarter, a moisture sample shall be taken from the material at the landfill and disturbed vacant areas associated with the landfill. *[AQR 12.8.1.d]*

2. An observer shall conduct a biweekly visible emissions check of visible emissions from process fugitive sources while they are in operations. If the facility is not operating frequently enough for biweekly observations, then observations shall be conducted while the facility is operating. [AQR 12.8.1.c]

3. If the observer, during the visible emissions check, does not see any plume that, on an instantaneous basis, appears to exceed the opacity standard, then the observer shall keep a record of the name of the observer, the date on which the observation was made, the location, and the results of the observation. *[AQR 12.8.1.c]*

4. If the observer sees a plume that, on an instantaneous basis, appears to exceed the opacity standard, then the Permittee shall:

a. have a certified VE observer take an EPA Method 9 observation of the plume and record the results, where practical, and

b. take immediate action to correct causes of fugitive dust in excess of allowable opacity limits. [AQR 12.8.1.c]

5. If Method 9 readings cannot be obtained, the observer shall also indicate in the log" a) the color of the emissions, b) whether the emissions were light or heavy, c) the cause of the abnormal emissions, and d) any corrective action taken. *[AQR 12.8.1.c]*

6. Visible emissions observations do not require a certified VE observer, except where visible emissions appear to exceed the allowable opacity limit and exceed 30 seconds in duration. *[AQR 12.8.1.c]*

7. All opacity observations that require observation with EPA Method 9 shall be performed by observers that hold a valid Visible Emissions (VE) certificate. *[AQR 12.8.1.c]*

8. Upon request of the Control Officer, compliance with the maximum silt loading and silt content limits for the paved and unpaved roads, respectively, shall be verified by methods outlined in AQR Sections 91 and 93, or other methods preapproved by the DAQEM Control Officer.

9. The Control Officer may require testing to demonstrate compliance with emission limitations outlined in this permit. *[AQR 12.8.1.d]*

D. Record Keeping

1. Records shall be maintained on a calendar quarter basis of the date and the amount of each load of construction debris deposited in the landfill. [AQR 12.8.1.d]

2. The Permittee shall maintain records and logs that contain, at minimum, the following information: [40 CFR 60.7-60.11, AQR 12.8.1.h]

a. daily records of the number of cubic yards (or tons) of material disposed, and a description of the type of material;
b. daily records regarding the number of gallons of water used at the landfill as dust control; and
c. the dates and time of the visible emissions check, the name of the person conducting the check, the results of the check, and the type of corrective action taken (if required);
d. a log book of malfunctions, corrective actions taken, and date, time, and results of moisture testing and performance testing (EPA Method 9).

3. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. The Permittee shall submit a summary of items stipulated by Condition VIII-D-2, in accordance with the reports and reporting requirements in Section III of this permit. [AQR 12.8.1.e]

F. Testing

1. Compliance with the opacity standards in Section VIII-B-1-b of this permit shall be demonstrated in accordance with EPA Method 9 (Standards for Opacity) conducted and recorded annually, unless a shorter averaging time is specified in an applicable NSPS. *[AQR 12.8.1.h]*

2. Subsequent performance testing shall be conducted on or before the anniversary date of the initial performance test. *[AQR 12.8.1.b]*

3. The Permittee shall comply with the general performance testing requirements in Section II of this permit. [AQR 12.8.1.e]

IX. DISTURBED AREAS/UNPAVED PARKING AREAS

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section IX (11/17/08)]

A. Emission Units

Table IX-A-1: Fugitive Emission Activities

EU#	Description	SCC	Type[1]
K001	Storage Yard North of Car Wash, 1.8 acres	2311020100	S1
	Bldg 10099 Storage Lot, 1.2 acres		
	Bldg 10093 Storage Lot, 1.8 acres		
	Area behind Hospital, 4.2 acres		
	Storage Yard, 5.1 acres		
	Miscellaneous Storage Areas, 25.9 acres total		

[1]Billing Codes: S1 = Disturbed Surfaces and Stockpiles.

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from storage areas/vacant land operations to exceed the calculated PTE listed below in Table IX-B-1. *[AQR 12.8.1.a]*

b. The Permittee shall not allow visible emissions in excess of the 20 percent opacity standard, as determined by conducting observations in accordance with EPA Method 9, from the unpaved parking lots, material handling and storage yards, and vehicle and equipment storage yards listed in Table IX-B-1. *[AQR 12.8.1.c]*

Table IX-B-1: PTE for Disturbed Surfaces at NAFB

Emission Unit	Area	Disturbed Surface (Acres)	PM_{10} Emission Factor[1] (lb/acre-day)	Emissions (lbs/day)	Emissions (tons/rolling 12-months)
K001	Storage Yard North of Car Wash	1.8	1.66	2.99	0.55
	Bldg 10099 Storage Lot	1.2	1.66	1.99	0.36
	Bldg 10093 Storage Lot	1.8	1.66	2.99	0.55
	Area behind Hospital	4.2	1.66	6.97	1.27
	Storage Yard	5.1	1.66	8.47	1.55
	Miscellaneous Storage Areas	25.9	1.66	42.99	7.85
Total		**40**		**66.40**	**12.13**

[1]DAQEM default emission factor for storage pile/disturbed surface.

2. Production Limits

a. At no time shall the sum of the amount of storage areas/disturbed surfaces at the entire NAFB (excluding the landfill, mineral processing, and areas under a dust permit) exceed 40 acres on any given day.

3. Emission Controls

a. The Permittee shall control fugitive dust from unpaved parking lots, material handling and storage yards, and vehicle and equipment storage yards, whenever technically feasible, by:

i. watering; or

ii. paving; or

iii. applying dust palliatives applicable to traffic areas; or

iv. for employee, visitor and other on-road vehicle parking areas, applying dust palliatives to vehicle travel lanes within the parking lot and uniformly applying and maintaining clean, well-graded surface gravel of a minimum of 3/8 inch material to a depth of two (2) inches on the vehicle parking areas; or

v. applying and maintaining an alternate control measure pre-approved by the Control Officer. *[AQR 12.8.1.d]*

b. For unpaved parking lots, material handling and storage yards, and vehicle and equipment storage yards, the Permittee shall stabilize soils by:

i. watering to maintain soils in a visibly moist condition;

ii. paving by application and maintenance of asphalt, concrete, or other similar material on a roadway surface;

iii. applying and maintaining per the manufacturer's recommendations dust palliatives as needed to maintain a stable surface; or

iv. maintaining gravel to at least two (2) inch minimum depth. [AQR 12.8.1.d]

c. The Permittee shall observe operations at least monthly, and more often as meteorological conditions warrant, and shall investigate any occurrence of visible fugitive dust. Corrective action shall be immediately taken to correct causes of fugitive dust in excess of allowable opacity limits. *[AQR 12.8.1.d]*

d. Where unpaved access roadways may exist, the Permittee shall monitor all vehicles traveling on unpaved roadways, and take such action as necessary to stabilize the surface as traffic and meteorological conditions warrant. *[AQR 12.8.1.d]*

C. Monitoring

1. Visible observations shall be made on a monthly basis to demonstrate compliance with the 20 percent opacity requirements. Should a DAQEM inspection indicate that opacity is being exceeded, then a more strict frequency for visible emissions observations may be required. *[AQR 12.8.1.d]*

2. All opacity observations that require compliance with EPA Method 9 shall be performed by observers that hold a valid Visible Emissions (VE) certificate. *[AQR 12.8.1.c]*

3. If Method 9 readings cannot be obtained, the observer shall also indicate in the log: a) the color of the emissions, b) whether the emissions were light or heavy, c) the cause of the abnormal emissions, and d) any corrective action taken. *[AQR 12.8.1.c]*

4. Visible emissions observations do not require a certified VE observer, except where visible emissions appear to exceed the allowable opacity limit and exceed 30 seconds in duration. *[AQR 12.8.1.c]*

5. On a quarterly basis, a Soil Crust Determination Test (the Drop Ball Test) shall be the method to determine compliance with sufficient crusting of stabilized soils located at NAFB. This test method shall be repeated as often as necessary on each portion of the disturbed soils to obtain an accurate assessment of stabilization of the site. *[AQR 12.8.1.c]*

6. The Control Officer reserves the right at any time to require additional control measures to ensure that the 20 percent opacity as determined by conducting observations in accordance with EPA Method 9, silt loading and silt content limitations outlined in this permit are not exceeded. *[AQR 12.8.1.d]*

7. DAQEM reserves the right at any time to quantify acreage of disturbed areas, storage lots and unpaved parking lots to demonstrate compliance with emission limitations outlined in this permit. *[AQR 12.8.1.d]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information:

a. the date and results of monthly visual observations for opacity of fugitive dust;
b. the date and the amount of acres of unpaved parking lots, material handling and storage yards, and vehicle and equipment storage yards, disturbed open areas and disturbed vacant land on daily basis;
c. the dates and time of the visible emissions check, the name of the person conducting the check, the results of the check, and the type of corrective action taken (if required);
d. a log book of excess opacity, malfunctions, and any corrective actions taken;
e. the date, time, and results of Soil Crust Determination Tests (Drop Ball Test);
f. the date, time, and results of silt content tests;
g. records of all fugitive dust abatement activities; and
h. the results of any performance testing. *[40 CFR 60.7-60.11, AQR 12.8.1.h]*

2. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. The Permittee shall submit a summary of items stipulated by Condition IX-D-1 in accordance with the reports and reporting requirements in Section II of this permit. *[AQR 12.8.1.e]*

F. Testing

1. Upon request of the Control Officer, a silt content test to demonstrate compliance with site stabilization shall be conducted to ensure that the soil does not equal or exceed 0.33 oz/ft^2 silt loading or exceed six (6) percent silt content for areas that are unpaved parking lots, material handling and storage yards, and vehicle and equipment storage yards. *[AQR 12.8.1.e]*

2. The Permittee shall comply with the general performance testing requirements in Section II of this permit. *[AQR 12.8.1.e]*

X. VACANT LANDS

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section IX (11/17/08)]

A. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall not allow visible emissions in excess of the 20 percent opacity standard, as determined by conducting observations in accordance with EPA Method 9, from any vacant land under control of the Permittee. *[AQR 12.8.1.c]*

2. Emission Controls

a. If open areas and vacant lots are 5,000 square feet or larger and are disturbed by any means, including use by motor vehicle and/or off-road motor vehicle, or material dumping, then the Permittee of such open areas and vacant lots shall implement one or more of the control measures whenever technically feasible, by:
   i. preventing equipment, motor vehicles and/or off-road vehicle trespassing, parking, and/or access by installing effective control measures; and either
   ii. establishing and maintaining a stable surface area at all times by watering to form a crust, establishing and maintaining adequate vegetation, uniformly applying and maintaining surface gravel or applying and maintaining dust palliatives to all areas; or
   iii. applying and maintaining an alternative control measure per-approved by the Control Officer. *[AQR 12.8.1.d]*

b. For open areas and vacant lands, the Permittee shall stabilize soils by:
   i. watering to maintain soils in a visibly moist condition;
   ii. crusting of the soils as determined by the Soil Crust Determination Test (Drop Ball Test);
   iii. maintaining adequate vegetation cover on open areas and vacant lots;
   iv. applying clean well-graded gravel of at least 3/8 inch in diameter to cover the entire area; or
   v. applying and maintaining per the manufacturer's recommendations dust palliatives as needed to maintain a stable surface. *[AQR 12..8.1.d]*

B. Monitoring

1. Visible observations shall be made, at least on a quarterly basis, to demonstrate compliance with the 20 percent opacity requirements. Should a DAQEM inspection indicate that opacity is being exceeded, then a more strict frequency for visible emissions observations may be required. *[AQR 12.8.1.d]*

2. All opacity observations that require compliance with EPA Method 9 shall be performed by observers that hold a valid Visible Emissions (VE) certificate. *[AQR 12.8.1.c]*

3. If Method 9 readings cannot be obtained, the observer shall also indicate in the log: a) the color of the emissions, b) whether the emissions were light or heavy, c) the cause of the abnormal emissions, and d) any corrective action taken. *[AQR 12.8.1.c]*

4. Visible emissions observations do not require a certified VE observer, except where visible emissions appear to exceed the allowable opacity limit and exceed 30 seconds in duration. *[AQR 12.8.1.c]*

C. Record Keeping

1. The Permittee will maintain records and logs that contain the date and results of the quarterly visual observations for fugitive emissions.

2. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

D. Reporting

1. The Permittee shall submit a summary of items stipulated by Condition X-D-1 in accordance with the reports and reporting requirements in Section II of this permit. *[AQR 12.8.1.e]*

XI. MINERAL PROCESSING

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section X (11/17/08)]

A. Emission Units

Table XI-A-1: Asphalt Plant Emission Units

EU	Description	SCC	Type[1]
A001	Asphalt Plant, Aggregate Transfer	30501104	DM
A002	Asphalt Plant/Hopper, Astec, M/N: PDM-636-C, S/N: NA	30501108	DM
A003	Asphalt Plant/Conveyor, Astec, M/N: PDM-636-C, S/N: NA	30502503	DM
A004	Asphalt Batch Plant Storage Piles, Gravel/Dirt, 0.15 acres	30500203	S1
A005	Asphalt Plant Drum, Astec, M/N: PDM-636-C, S/N: 85151	30500258	P1
A006	Asphalt Plant/Storage Tank Burner, Astec, M/N: PDM-636-C, S/N: 85151	30500212	P1

[1]Billing Codes: DM = De minimis unit, S1 = disturbed surfaces and stockpiles, P1= process equipment.

Table XI-A-2: Concrete Plant Emission Units

EU	Description	SCC	Type[1]
A007	Concrete Plant, Aggregate Transfer, M/N: NA, S/N: NA	30501108	DM
A008	Concrete Plant, Sand Transfer, M/N: NA, S/N: NA	30501101	DM
A009	Concrete Plant/Conveyor 1, Zimmerman, M/N: NA, S/N: ZM6-630-965-092	30501101	DM
A010	Concrete Plant/Conveyor 2, Zimmerman, M/N: NA, S/N: ZM6-630-965-092	30501108	DM
A011	Concrete Plant Silo, Zimmerman, M/N: NA, S/N: NA	30501115	S2
A012	Concrete Plant/Silo, Belgrade, M/N: 225, S/N: 91701	30501106	S2
A013	Concrete Plant/Silo, Belgrade, M/N: NA, S/N: NA	30501114	S2
A014	Concrete Plant/Mixer, Zimmerman, M/N: NA, S/N: ZM6-630-965-092	30501109	P1
A015	Concrete Plant/Conveyor, Johnson, M/N: SI1984, S/N: 80330-68-C-0028	30501109	P1
A016	Concrete Plant Mixer, Haws, M/N: H-10, S/N: 3144	30501110	P1
A017	Concrete Batch Plant Storage Piles, Gravel/Dirt, 0.10 acres	30501120	S1
A018	Concrete Batch Plant Storage Piles, Sand, 0.05 acres	30502006	S1

[1]Billing Codes: DM = De minimis unit, S2 = storage silo, P1 = process equipment, S1 = disturbed surfaces and stockpiles.

Table XI-A-3: Aggregate Plant Emission Units

EU	Description	SCC	Type[1]
A019	Rock Crushing/Crusher, Eagle, M/N: 33D5510, S/N: 11375	30502033	DM
A020	Rock Crushing/Screen, JCI, M/N: JCI516326, S/N: 00H03L26	30502003	DM
A021	Rock Crushing/Conveyor, Cedar Rapids, M/N: NA, S/N: 38670	30502002	DM
A022	Rock Crushing/Conveyor, Cedar Rapids, M/N: NA, S/N: 38671	30502006	DM
A023	Rock Crushing/Conveyor, Cedar Rapids, M/N: NA, S/N: 38672	30502006	DM
A024	Rock Crushing/Conveyor, Eagle, M/N: PRSC, S/N: 2701	30502006	P1
A025	Rock Crushing/Conveyor, Eagle, M/N: PRSC, S/N: 2702	30502006	P1

EU	Description	SCC	Type[1]
A026	Rock Crushing/Conveyor, Eagle, M/N: PRSC, S/N: 2694	30502006	P1
A027	Aggregate Storage Piles, Gravel/Dirt, 2.0 acres	30502006	S1

[1]Billing Codes: DM = De minimis unit, P1 = process equipment, S1 = disturbed surfaces and stockpiles.

Table XI-A-4: Haul Road Emission Units

EU	Description	SCC	Type[1]
A028	Haul Road, 5,475 Vehicle Miles Travel (VMT) per rolling 12-months	30502504	H1

[1]Billing Codes: H1 = haul road.

Table XI-A-5: Generator Emission Units

EU	Description	SCC	Type[1]
A029	Asphalt Plant Generator, Cummins, M/N: 4B 3.9-GC, S/N: 180734, 30 kW (40.2 bhp)	20100101	CE1
A030	Asphalt Plant Generator, Cummins, M/N: 680FDR7128JJW, S/N: PK-19-51084-9125-4, 455 kW (609.7 bhp)	20100101	CE2
A031	Concrete Batch Plant Generator, Cummins, M/N: 6CTA8.3, S/N: 44389459, 80 kW (107.2 bhp)	20100101	CE1
A032	Rock Crushing Generator, Aggregate, M/N: Crusher, S/N: NA, 210 bhp	20100101	CE1
A033	Rock Crushing Generator, Olympian, M/N: D200P4, S/N: OLY00000KNN500557, 295 bhp	20100101	CE1

[1]Billing Codes: CE1 = Stationary IC engine 35-350 hp, CE2 = Stationary IC engine 351-800 hp.

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from the mineral processing emission units to exceed the PTE listed in this section. *[AQR 12.8.1.a]*

b. The Permittee shall not discharge or cause the discharge into the atmosphere from any Hot Mix Asphalt facility, including all the emission units listed in Table XI-A-1, emissions exceeding 20 percent opacity. *[40 CFR 60.92 (Subpart I)]*

c. The Permittee shall not discharge or cause the discharge into the atmosphere from the asphalt drum (EU: A005) emissions containing particulate matter in excess of 2.88 lbs/hr. *[ATC/OP 114, Mod. 37, Rev. 1, March 13, 2008, and 40 CFR 60.92 (Subpart I)]*

d. The Permittee shall not allow visible emissions from any stack, controlling emission units associated with the Concrete Plant, listed in Table XI-A-2, greater than 7 percent opacity. *[AQR 34.3.1.3]*

e. The Permittee shall not allow visible emissions from the Aggregate Processing facility, including the emission units listed in Tables XI-A-3, XI-A-4, and XI-A-5, to exceed the following standards:

   i. from any screening equipment, conveyors, storage piles, stackers, transfer point on belt conveyors, fugitive emissions shall not exhibit greater than 10 percent opacity*; [AQR 34.3.1.1, 40 CFR Subpart 60.672 (Subpart OOO)]*

   ii. from any crusher, at which a capture system is not used, fugitive emissions shall not exhibit greater than 15 percent opacity; *[40 CFR 60.672 (Subpart OOO); AQR 34.3.1.2]*

   iii. From any other fugitive emission source, fugitive emissions shall not exhibit greater than 20 percent opacity. *[AQR 26.1.1]*

f. The Permittee shall not allow visible emissions from the Concrete Batch Plant, emission units listed in Table XI-A-2, to exceed 20 percent opacity. *[AQR 26.1.1]*

Table XI-B-1: PTE for PM_{10} at Asphalt Plant

EU	Throughput (tons/hour)	Throughput (tons/rolling 12-months)	PM_{10} (ton/yr)
A001	125	18,000	0.01
A002	125	18,000	0.01
A003	125	18,000	0.02
A004	0.15 acres		0.01

[1]1.5 moisture content of material equates to 81.5 percent control efficiency.

Table XI-B-2: Asphalt Plant Combustion Emission Units and Criteria Pollutant Emissions

EU #	Description	Pollutant	(ton/yr)
A002/A003	Asphalt Plant Load Out, Astec, M/N: PDM-636-C, S/N: 85151	**PM_{10}**	0.01
		NO_X	None identified
		CO	0.01
		SO_2	None identified
		VOC	0.04
		Total HAPs	Included in VOC
A005	Asphalt Plant Drum, Astec, M/N: PDM-636-C, S/N: 85151	**PM_{10}**	2.88 lbs/hr 0.21 tons/yr
		NO_X	0.50
		CO	1.17
		SO_2	0.10
		VOC	0.29
		Total HAPs	0.07
A006	Asphalt Plant Burner, 1 MMBtu/hr, Astec, M/N: PDM-636-C, S/N: 85151, 16,800 gallons diesel fuel per rolling 12-months[1]	**PM_{10}**	0.01
		NO_X	0.17
		CO	0.04
		SO_2	0.06
		VOC	0.01
		Total HAPs[2]	0.01
A006	Asphalt Plant Storage Tank, Astec, M/N: PDM-636-C, S/N: 85151	**PM_{10}**	0.00
		NO_X	0.00
		CO	0.00
		SO_2	0.00
		VOC	0.01
		Total HAPs	0.01

[1]Diesel Heating Value = 140 MMBtu/1,000 gallons.
[2]HAP calculated at worse case emission factor (formaldehyde).

Table XI-B-3: PTE for Concrete Plant

EU	Throughput (tons/hour)	Throughput (tons/rolling 12-months)	Control Efficiency (percent)	PM_{10} (ton/yr)
A007	200	15,000	81.5[1]	0.01
A008	200	15,000	81.5[1]	0.01

EU	Throughput (tons/hour)	Throughput (tons/rolling 12-months)	Control Efficiency (percent)	PM_{10} (ton/yr)
A009	200	15,000	81.5[1]	0.01
A010	200	15,000	81.5[1]	0.01
A011	200	15,000	99.0[2]	0.04
A012	200	15,000	99.0[2]	0.04
A013	200	15,000	99.0[2]	0.04
A014	200	15,000	81.5[1]	0.19
A015	200	15,000	81.5[1]	0.39
A016	200	15,000	81.5[1]	0.19
A017	0.10 acres		81.5[1]	0.01
A018	0.05 acres		81.5[1]	0.95

[1]81.5 percent control efficiency based on 1.5 moisture content of material.
[2]99 percent control efficiency for silos based on baghouse control.

Table XI-B-4: PTE for Aggregate Plant

EU	Throughput (tons/hour)	Throughput (tons/rolling 12-months)	Control Efficiency[1]	PM_{10} (ton/yr)
A019	200	100,000	81.5	0.02
A020	200	100,000	81.5	0.08
A021	200	100,000	81.5	0.01
A022	200	100,000	81.5	0.01
A023	200	100,000	81.5	0.01
A024	200	100,000	81.5	0.37
A025	200	100,000	81.5	0.37
A026	200	100,000	81.5	0.37
A027	2.00 acres		81.5	0.11

[1]81.5 percent control efficiency based on 1.5 moisture content of material.

Table XI-B-5: PTE for Haul Road

EU	Vehicle Miles Traveled/ Hour	Vehicle Miles Traveled/ Rolling 12-months	Control Efficiency	PM_{10}(tons/yr)
A028	14	5,475	98%[1]	0.42

[1]Assumes 98% control for paved haul roads.

Table XI-B-6: PTE for Generators (tons per rolling 12-months)

EU	Rating	PM_{10}	NO_X	CO	SO_2	VOC	HAP
A029	40.23 bhp	0.09	1.30	0.28	0.09	0.10	1.87E-03
A030	610.16 bhp	0.18	6.22	1.43	0.01	0.18	2.70E-03
A031	107.28 bhp	0.23	3.46	0.75	0.23	0.11	1.91E-03
A032	210 bhp	0.48	6.77	1.46	0.45	0.54	9.74E-03
A033	295 bhp	0.52	7.89	1.70	0.52	0.63	1.13E-02

Table XI-B-7: PTE for All Mineral Processing Activities (tons per rolling 12-months)

	PM_{10}	NO_X	CO	SO_2	VOC	HAPs
Asphalt Plant	0.28	0.67	1.22	0.10	0.35	0.09
Concrete Plant	0.95	0.00	0.00	0.00	0.00	0.00

	PM_{10}	NO_X	CO	SO_2	VOC	HAPs
Aggregate Plant[1]	1.35	0.00	0.00	0.00	0.00	0.00
Haul Road	0.42	0.00	0.00	0.00	0.00	0.00
Generators[2]	0.56	8.03	1.73	0.53	0.64	0.01
Totals	**3.56**	**8.70**	**2.95**	**0.63**	**0.99**	**0.10**

[1]Hydrographic Area 215.
[2]Based on 26,000 gallons per rolling 12-months diesel fuel cap and emission factors specified in AP-42, Section 3.3 Gasoline and Diesel Industrial Engines, Table 3.3-1(10/96).

2. Production Limits

a. The production shall exceed neither the throughput limits per emission unit as delineated in Table XI-B-1 through Table XI-B-7, nor the emission unit limits contained in this section.

b. The asphalt plant (EUs: A001 through A006, inclusive) is allowed to produce up to 125 tons of material per hour and 18,000 tons of material per rolling 12-months.

c. The 1 MMBtu/hr asphalt plant burner (EU: A005) is allowed to combust up to 16,800 gallons of diesel fuel per rolling 12-months and shall combust low sulfur (less than 0.05 percent) diesel fuel only.

d. The concrete batch plant (EUs: A007 through A018, inclusive) is allowed to produce up to 200 tons of material per hour and 15,000 tons of material per rolling 12-months.

e. The aggregate facility (EUs: A019 through A028, inclusive) is allowed to produce 200 tons of material per hour and 100,000 tons per rolling 12-months of material.

f. The haul road shall be paved and shall be limited to a maximum of 5,475 VMT per rolling 12-months.

g. The generators (EUs: A029, A031 and A032) are allowed to operate up to 2,080 hours per rolling 12-months. The 610-bhp generator (EU: A030) is allowed to operate up to 850 hours per rolling 12-months. The 295-bhp generator (EU: A033) is allowed to operate up to 1,750 hours per rolling 12-months.

h. The five generators (EUs: A029 through A033, inclusive) shall share a fuel cap of 26,000 gallons per rolling 12-months and shall combust low sulfur (less than 0.05 percent) diesel fuel only.

3. Emission Controls

a. The Permittee shall take continual measures to control fugitive dust (e.g. wet, chemical or organic suppression, enclosures, etc.) at all mining and aggregate processing operations, material transfer points, stockpiles, truck loading stations and haul roads throughout the source. The Control Officer may at any time require additional water sprays or other controls at pertinent locations if an inspection indicates that opacity limits are being exceeded. *[AQR 12.8.1.d]*

b. The Permittee shall not cause or allow fugitive dust to become airborne without taking reasonable precautions. *[AQR 12.8.1.d]*

c. The Permittee shall not cause or allow the discharge of fugitive dust in excess of 100 yards from the point of origin or beyond the lot line of the property on which the emissions originate, whichever is less. *[AQR 12.8.1.c]*

d. Paved roads accessing or located on the site shall be swept and/or rinsed as necessary to remove all observable deposits and so as not to exhibit an opacity greater than 15 percent as determined by conducting observations in accordance with EPA Method 9, or an instantaneous opacity greater than 50 percent. In addition, silt loading shall not exceed 0.33 ounces per square foot regardless of the average number of vehicles per day. *[AQR 12.8.1.c]*

e. Unpaved roads accessing or located on the site shall be treated with chemical or organic dust suppressant and/or watered as necessary, or paved, or graveled, or have an alternate, Control Officer approved, control measure applied, so as not to exhibit an opacity greater than 15 percent as determined by conducting observations in accordance with EPA Method 9, or an instantaneous opacity greater than 50 percent. In addition, silt content shall not exceed six percent and/or silt loading shall not exceed 0.33 ounces per square foot (depending on the control method chosen) regardless of the average number of vehicles per day. *[AQR 12.8.1.c]*

f. Mud or dirt shall not be allowed to be tracked out onto a paved road where such mud or dirt extends 50 feet or more in cumulative length from the point of origin and/or allow any track out to accumulate to a depth greater than 0.25 inches. Notwithstanding the preceding, all accumulations of mud or dirt on curbs, gutters, sidewalks or paved roads including track out less than 50 feet in length and/or less than 0.25 inches in depth, shall be cleaned of all observable deposits and maintained to eliminate emissions of fugitive dust. *[AQR 12.8.1.d](Local Only)*

g. The Permittee shall ensure that all loaded trucks, regardless of ownership, shall be properly covered to prevent visible emissions. *[AQR 12.8.1.d](Local Only)*

h. Fugitive dust emissions from screens, crushers, conveyors, storage piles, transfer points, and nonmetallic mineral processing equipment for connected to baghouse controls or part of the wet process shall be controlled by operational water sprays as needed to prevent exceeding opacity standards. *[AQR 34.4.2]*

i. A water spray system shall be maintained in good operating condition, as verified by a daily inspection, and be used at all times during the processing of the material. This shall include but not be limited to crushing, screening, transfer points, drop points and stacker points excluding washed product processing. The Permittee shall investigate and correct any problems before resuming operations. The Control Officer at any time may require additional water sprays at pertinent locations if an inspection by the Control Officer indicates that the opacity limit is being exceeded. *[AQR 34.4.2]*

j. The control method for mining and aggregate processing operations, including all transfer points shall consist of maintaining a minimum of 1.5 percent moisture content in materials less than 0.25 inches in diameter for the entire process that shall maintain an 81.5 percent control on PM_{10} emissions. *[AQR 34.4.2]*

k. Each of the bin vents on the three cement silos shall be capable of 99 percent control efficiency for particulate matter. *[AQR 12.8.1.c]*

l. All generators (EUs: A029 through A033, inclusive) shall be equipped with an hour meter or fuel meter. *[AQR 12.8.1.d]*

m. All generators greater than 100 bhp (EUs: A030 through A033, inclusive) shall be equipped with a turbocharger and aftercooler. *[AQR 12.8.1.d]*

n. Emission units A031, A032 and A033 shall implement injection timing retardation. *[AQR 12.8.1.d]*

o. All generators shall be operated and maintained in accordance with the manufacturer's recommendations. All generators shall combust only low sulfur (less than 0.05 percent) diesel fuel. *[AQR 12.8.1.d]*

p. Only low sulfur diesel fuel may be burned in the asphalt batch plant. *[AQR 12.8.1.d]*

q. Where a stationary source, or a portion thereof, is to be closed or idled for a period of 30 days or more, long-term stabilization of disturbed areas shall be implemented within ten days following the cessation of active operations. Long-term stabilization includes, but is not limited to, one or more of the following: applying water to form a crust, applying palliatives, applying gravel, paving, denying unauthorized access or other effective control measure to prevent fugitive dust from becoming airborne. *[AQR 12.8.1.d]*

C. Monitoring

1. An observer shall conduct a biweekly visible emissions check of visible emissions from process fugitive sources while they are in operation. If the facility is not operating frequently enough for biweekly observations, then observations shall be conducted while the facility is operating. *[AQR 12.8.1.d]*

2. A visible emission check is verification that abnormal emissions are not present at the exhaust stack. Corrective action shall be immediately taken to correct causes of fugitive emissions in excess of allowable opacity limits. *[AQR 12.8.1.c]*

3. If the observer, during the visible emissions check, does not see any plume that, on an instantaneous basis, appears to exceed the opacity standard, then the observer shall keep a record of the name of the observer, the date on which the observation was made, the location, and the results of the observation. *[AQR 12.8.1.c]*

4. If the observer sees a plume that, on an instantaneous basis, appears to exceed the opacity standard, then the Permittee shall have a certified VE observer take an EPA Method 9 observation of the plume and record the results. *[AQR 12.8.1.c]*

5. If Method 9 readings can not be obtained, the observer shall also indicate in the log: a) the color of the emissions, b) whether the emissions were light or heavy, c) the cause of the abnormal emissions, and d) any corrective action taken. *[AQR 12.8.1.c]*

6. Visible emissions observations do not require a certified VE observer, except where visible emissions appear to exceed the allowable opacity limit and exceed 30 seconds in duration. *[AQR 12.8.1.c]*

7. Compliance with the opacity standards for paved and unpaved roads contained within the permit shall be demonstrated, when required by the Control Officer, in accordance with one of the following, as applicable: *[AQR 12.8.1.c]*

a. EPA Method 9 (Standards for Opacity); or

b. The test method set forth in AQR Subsection 94.12.4: Instantaneous Method.

8. The Permittee shall compliance with the minimum moisture content (1.5 percent at all processing points and storage piles) shall be demonstrated by conducting moisture testing and recording the results at least once a week on materials less than 0.25 inches in diameter from the screener discharge in accordance with ASTM Standard C 566-97: Standard Test Method for Total Moisture Content of Aggregate by Drying. *[AQR 12.8.1.c]*

9. The Permittee shall maintain a log of the date, the hours of operation of each generator, and the amount of fuel consumed by each of the generators. *[AQR 12.8.1.d]*

10. Records and data required by this permit to be maintained by Permittee may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[AQR 12.8.1.d]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information: *[40 CFR 60.7-60.11, AQR 12.8.1.h]*

a. monthly amount of material excavated and/or processed through the rock crusher and screen;
b. the dates and time of the visible emissions check, the name of the person conducting the check, the results of the check, and the type of corrective action taken (if required);
c. monthly amount of concrete produced at the concrete batch plant;
d. monthly amount of asphalt produced at the asphalt batch plant;
e. results of moisture sampling;
f. log of control device inspections, maintenance and repair;
g. total rolling 12-month vehicles miles traveled on haul road(s) and the length of the haul road(s);
h. log of dust control measures applied to the paved haul road, unpaved haul road, parking lots, and vacant areas;
i. hours of operation and amount of diesel fuel used by the 1 MMBtu/hr burner at the asphalt batch plant;
j. hours of operation and amount of diesel fuel used by each generator in a daily log with monthly summations;
k. manufacturer's certification of sulfur content of diesel fuel;
l. the results of any performance testing; and,
m. excess emissions, notifications, and malfunctions, including actions taken to remedy the excess emissions and malfunctions.

2. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. If at any time, the Permittee replaces all existing equipment in a production line with new equipment, the Permittee shall submit all information about the existing equipment and its replacement equipment to the Administrator. *[40 CFR 60.676]*

2. The Permittee shall submit a summary of items stipulated by Condition XI-D-1 in accordance with the reports and reporting requirements in Section II of this permit. *[AQR 12.8.1.e]*

F. Testing

1. The Permittee shall conduct an annual EPA method 9 Opacity performance test on all mineral processing equipment that has operated during the calendar year. A report of the results shall be submitted to the Control Officer. *[AQR 34.4.1.2.c]*

2. Subsequent performance testing shall be conducted on or before the anniversary date of the initial performance test. *[AQR 12.8.1.b]*

3. The Permittee shall comply with the general performance testing requirements in Section II of this permit. *[AQR 12.8.1.e]*

XII. REMEDIATION

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section XI (11/17/08)]

A. Emission Units

Table XII-A-1: Emission Units

EU#	Description	SCC	Type[1]
F001	Extraction System including Thermal/Catalytic Oxidizer, Firecat 250, 0.40 MMBtu/hr, Propane, Aircraft Revetments	50410530	DM

[1]Billing Codes: DM = De minimis unit.

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from the soil remediation units to exceed the PTE listed in Table XII-B-1. [AQR 12.8.1.a]

Table XII-B-1: PTE for Remediation System located at NAFB

EU#	Emission Rate	PM_{10}	NO_X	CO	SO_X	VOC	HAPs
F001	**tons/rolling 12-months**	**0.01**	**0.27**	**0.04**	**0.01**	**0.77**	**0.77**

2. Production Limits

a. The RTO shall only combust propane gas as the auxiliary fuel.

3. Emission Controls

a. The Permittee shall control all VOC emissions with a control device capable of at least a 99 percent destruction efficiency. [AQR 12.8.1.c]

b. VOC concentrations greater than 3,000 ppmv shall be treated with thermal oxidation. [AQR 12.8.1.c]

c. VOC concentrations less than 3,000 ppmv shall be treated with catalytic oxidation until the heating value of the air stream being treated diminishes below the heating value of the supplemental fuel. [AQR 12.8.1.c]

d. When the British thermal unit (Btu) content of the air stream being treated diminishes below the Btu level of the supplemental fuel, an activated carbon control system must be used. [AQR 12.8.1.d]

C. Monitoring

1. Concentrations of VOCs shall be measured before and after the control device to verify destruction efficiency. [AQR 12.8.1.d]

2. Photoionization Detector (PID) or Flame Ionization Detector (FID) monitoring shall be performed weekly to determine the quantity of VOC sent to the control device and the quantity of VOC emissions emitted to the atmosphere after the control device. The destruction efficiency of the control device shall be calculated as equal to one (1) minus the VOC outlet concentration measured by the PID/FID divided by the VOC inlet concentration measured by the PID/FID. [AQR 12.8.1.d]

3. Air samples shall be collected at the inlet gas stream to the control device and the exhaust gas stream exiting the control device. Air samples shall be collected every quarter and shall be submitted to an analytical laboratory to determine the concentrations of VOCs in the inlet gas stream and the exhaust gas stream. Air samples shall be analyzed for total petroleum hydrocarbons (TPH) by EPA Method 8015M (as modified for air use) for benzene, toluene, ethylbenzene and xylene (BTEX), and methyl tert-butyl ether (MTBE) by Method 8260 (as modified for air use). The destruction efficiency of the control device shall be calculated as equal to one (1) minus the VOC outlet concentration divided by the VOC inlet concentration. [AQR 12.8.1.c]

4. The amount of VOCs shall be measured with a PID/FID. These readings shall be recorded at the same time that the air samples are collected for laboratory analysis. The PID/FID readings shall be correlated to the results of the laboratory analysis. [AQR 12.8.1.d]

5. The PID/FID shall be maintained and calibrated according to the manufacturer's recommendations. [AQR 12.8.1.d]

6. The flow rate (measured in standard cubic feet per minute) of the vapor stream to the control device shall be monitored and recorded with each sample collected. *[AQR 12.8.1.d]*

7. The Permittee shall conduct a visible emissions check on the exhaust stack at least quarterly while the RTO is operating. For the purposes of this permit, a visible emission check is verification that abnormal emissions are not present at the exhaust stack. Corrective action shall be immediately taken to correct causes of abnormal emissions. *[AQR 12.8.1.c]*

8. During the visible emissions check, the observer shall keep a record of the name of the observer, the date on which the observation was made, the location, the results of the observation, and any corrective action taken. *[AQR 12.8.1.d*

9. Records and data required by this permit to be maintained by Permittee may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[AQR 12.8.1.d]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information: [40 CFR 60.7-60.11, AQR 12.8.1.h]

a. PID/FID monitoring logs for the soil and groundwater remediation system;
b. PID/FID calibration logs;
c. Laboratory analysis reports for TPH, BTEX, MTBE, BTU content, and the QA/QC summary;
d. the calculated destruction efficiency;
e. the hours of operation;
f. log of maintenance and/or repair of any control equipment;
g. flow rate of vapor stream;
h. the amount and type of auxiliary fuel used by the thermal oxidizer, in scfm;
i. the mode of operation for the control equipment, i.e., thermal, catalytic, activated carbon;
j. records from the quarterly visible emissions check; and

k. the results of any performance testing.

2. The Permittee shall comply with the general record keeping requirements in Section II of this permit. [AQR 12.8.1.e]

E. Reporting

1. The Permittee shall submit a summary of items stipulated by Condition XII-D-1 if conducted during that reporting quarter, in accordance with the reports and reporting requirements in Section II of this permit. *[AQR 12.8.1.e]*

F. Testing

1. The Permittee shall comply with the general performance testing requirements in Section II of this permit. *[AQR 12.8.1.e]*

XIII. PAINT BOOTHS & MEDIA BLASTING

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section XII (11/17/08)]

A. Emission Units

Table XIII-A-1: Emission Units

EU	Description	SCC	Type[1]
D001	JBI Spray Booth, Bldg 252-1, M/N: F-22, S/N: 30807-A, Size Unknown	40202499	SC1
D002	Binks Paint Booth, Bldg 253, M/N: N/A, S/N: N/A, Size: 60' x 20'	40202499	SC1
D003	JBI Paint Booth, Bldg 256-1, M/N: DB-7322-5, S/N: 20849, Size: 95'6" x 91'6" x 20'	40202499	SC1
D004	Pauli System Paint Booth, Bldg 256-2, M/N: Custom Design	40202499	SC1
D005	Binks Paint Booth, Bldg 807, M/N: N/A, S/N: 83-2448, Size: 15'7" x 7'7" x 8'	40202599	SC1
D006	Binks Paint Booth, Bldg 868, M/N: N/A, S/N: 83-2448, Size: N/A	40201699	SC1
D007	Paint Boot, Bldg 10144, M/N: N/A, S/N: N/A, Size 20' X 30'	40202599	SC1
D008	Paint Booth, Bldg 10131, M/N: N/A, S/N: N/A, Size Unknown	40201699	SC1
D009	Vehicle Maintenance Shop, Bleeker Bros Paint Booth, M/N: TSDT-40, S/N: N/A, Size Unknown	40201699	SC1
D010	Media Blasting, Bldg 255, M/N: N/A, S/N: N/A	30900201	DM
D011	Media Blasting, Abrasive Blast Systems, Inc., Bldg 256, M/N: N/A, S/N: 300902-03-48	30900201	DM
D012	Media Blasting, Clemco, Bldg 270, M/N: BNP220P 900R&DF, S/N: 52248	30900201	DM
D013	Media Blasting, Trinco, Bldg 474, M/N: 36DT2, S/N: 34529-0	30900201	DM
D014	Media Blasting, Snapon, Bldg 840, M/N: N/A, S/N: N/A	30900201	DM
D015	Media Blasting, Snapon, Bldg 861, M/N: YA434C, S/N: 50236793	30900201	DM
D016	Media Blasting, Econoline, Bldg 61664, M/N: 48-2, S/N: 2715	30900201	DM
D017	Media Blasting, Bldg 10144, M/N: N/A, S/N: N/A, 20' X 30'	30900201	DM
D018	Pauli Systems Inc. Spray Booth, Building 252-2, M/N: TBD, S/N: TBD, 70' x 92.5' x 22'	40202499	SC1

[1]Type codes for billing: SC1 = surface coater; DM = De minimis unit.

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from the paint booth and media blasting activities to exceed the PTE listed in Table XIII-B-1. *[AQR 12.8.1.a]*

b. The Permittee shall not allow visible emissions in excess of the 20 percent opacity, as determined by conducting observations in accordance with EPA Method 9, from the emission units listed in Table XIII-A-1. *[AQR 12.8.1.c]*

Table XIII-B-1: Paint Booths and Media Blasting Allowable Emissions

EU	PM_{10} Emissions (ton/yr)	VOC Emissions (ton/yr)	HAP Emissions (ton/yr)
D001	0.03	0.46	0.23
D002	0.02	2.19	1.12
D003	0.13	1.81	0.92
D004	0.13	1.81	0.92
D005	0.01	0.42	0.09
D006	0.01	2.24	1.15
D007	0.01	0.44	0.24
D008	0.05	1.21	0.63
D009	0.03	1.27	0.66
D010[1]	0.01	0.0	0.0
D011[1]	0.01	0.0	0.0
D012[1]	0.01	0.0	0.0
D013[1]	0.01	0.0	0.0
D014[1]	0.01	0.0	0.0
D015[1]	0.01	0.0	0.0
D016[1]	0.01	0.0	0.0
D017[1]	0.01	0.0	0.0
D018	0.02	0.46	0.23
Totals[2]	**0.52**	**12.31**	**6.19**

[1] PM_{10} emission factor for media blasting provided by the Permittee.
[2] The total emission is displayed for information purposes only..

2. Production Limits

a. The maximum gallons of paint used by each paint booth at Nellis Air Force Base shall be limited as follows: *[AQR 12.8.1.c]*

Table XIII-B-2: Maximum Allowable Gallons of Surface Coating Material Allowed by Paint Booths

Building/ Emission Unit	Topcoat (gallons)	Primer (gallons)	Cleaning (gallons)
	Rolling 12-monthsly	Rolling 12-monthsly	Rolling 12-monthsly
252-1/D001	1,500	450	50
253/D002	900	80	30
256-1/D003	7,000	1,000	215
256-2/D004	7,000	1,000	215
807/D005	350	25	25
868/D006	520	190	40
10144/D007	180	0	20
10131/D008	330	50	30
VMS/D009	350	50	30
252-2/D018	1,500	450	50

b. The Volatile Organic Compound (VOC) and Hazardous Air Pollutant (HAP) content of surface coating material shall not exceed the limits outlined in Table XIII-B-3. *[AQR 12.8.1.c]*

Table XIII-B-3: Maximum Allowable VOC and HAP Content of Surface Coating Material Allowed by Paint Booths at NAFB

Building/ Emission Unit	Topcoat (lbs. per gal)		Primer (lbs. per gal)		Cleaning (lbs. per gal)	
	Maximum VOC	Maximum HAP	Maximum VOC	Maximum HAP	Maximum VOC	Maximum HAP
252-1/D001	4.1	2.05	5.88	2.94	7.49	5.24
253/D002	4.1	2.05	5.88	2.94	7.49	5.24
256-1/D003	4.1	2.05	5.88	2.94	7.49	5.24
256-2/D004	4.1	2.05	5.88	2.94	7.49	5.24
807/D005	1.6	0.01	4.00	2.00	7.49	5.24
868/D006	5.7	2.85	6.45	3.23	7.49	5.24
10144/D007	4.1	2.05	5.88	2.94	7.49	5.24
10131/D008	5.7	2.85	6.45	3.23	7.49	5.24
VMS/D009	5.7	2.85	6.45	3.23	7.49	5.24
252-2/D018	4.1	2.05	5.88	2.94	7.49	5.24

c. Each media blasting booth shall be limited to 50 pounds per hour of abrasive. Emission units D010 and D017 shall each be limited to 38,000 pounds per rolling 12-months of abrasive material. Emission units D011 through D016, inclusive, shall each be limited to 10,000 pounds per rolling 12-months of abrasive material. *[AQR 12.8.1.c]*

3. Emission Controls

a. The spray booth shall not be operated unless all exhaust air passes through appropriate filter media having a particulate capture efficiency of at least 99 percent for emission units D001 through D007, and D018. The spray booth designated D008 shall not be operated unless all exhaust air passes through appropriate filter media having a particulate capture efficiency of at least 92 percent. The spray booth designated D009 shall not be operated unless all exhaust air passes through appropriate filter media having a particulate capture efficiency of at least 95 percent. The dry filter media must cover all openings in all of the spray booths. *[AQR 12.8.1.c]*

b. All painting must be performed in the spray paint booth using a high-volume, low-pressure (HVLP) gun having at least 65 percent transfer efficiency. *[AQR 12.8.1.c]*

c. The spray booths equipped with a VOC control device (EUs: D001, D003, D004, and D018) shall maintain at least a 90 percent control efficiency. The VOC control device shall be in operation anytime surface coating is occurring. *[AQR 12.8.1.c]*

d. Open containers shall not be used for storage or disposal of solvent-containing cloth or paper (excluding masking tape) used for surface preparation and cleanup. *[AQR 12.8.1.d]*

e. Pursuant to AQR Sections 40 and 43, no person shall cause, suffer or allow the discharge from any source whatsoever such quantities of air contaminants or other material which cause a nuisance, such as over spray or excessive odors from the spray painting operation or associated operations. *[AQR 40.1](Not Federally Enforceable)*

f. Good housekeeping practices shall be employed to prevent the accumulation and/or dispersal of particulate matter from sanding, blasting, and other surface preparation carried out in conjunction with surface coating operations. No more than 0.25 inches of particulate matter shall accumulate on surrounding surfaces at any time. *[AQR 12.8.1.d](Not Federally Enforceable)*

g. The spray booths equipped with dry filter media shall not be operated unless all exhaust air passes through a control equivalent to filter media two inches thick. The filters must cover all openings leading to the fan. All filters or other control equipment shall follow manufacturer's recommendations for use and operation. Dry filters must be changed at sufficient intervals to prevent a decrease in their effectiveness, and to prevent them from clogging. *[AQR 12.8.1.d](Not Federally Enforceable)*

h. A manometer (or equivalent) shall be used to monitor the pressure drop across the spray booth filters. The filters shall be replaced when the pressure drop exceeds 0.25 inches of water (6.35 millimeters of water). *[AQR 12.8.1.d]*

i. Surface coating application equipment shall be cleaned in an enclosed container to minimize VOC volatilization into the ambient air. *[AQR 12.8.1.d](Not Federally Enforceable)*

j. All solvent containers shall remain securely closed, except during product transfer. Containers shall be inspected regularly for leakage, and the contents of any leaking container shall be immediately transferred to an appropriately labeled container that has been specifically designed for storage of the compound. *[AQR 12.8.1.d](Not Federally Enforceable)*

k. The spray booth and all ancillary equipment shall be inspected for leaks, malfunctions, proper operation of gauges, and pressure drops each day the booth is operated. A log must be kept of such inspections as well as any corrective actions taken to repair the equipment regarding leaks, malfunctions, operations of gauges, pressure drops, or other parameter that may result in excess emissions. *[AQR 12.8.1.d]*

l. Media blasting operations shall have particulate emissions controlled by a method compliant with AQR Section 41.

m. Cyclones/cartridge filters used to control particulate emissions from media blasting shall be maintained and operated per manufacturer's recommendations to maintain at a least 99.9 percent efficiency. *[AQR 12.8.1.c]*

n. Written instructions (SOPs) shall be developed and shall contain procedures for tracking material usage from media blasting. *[AQR 12.8.1.d]*

C. Monitoring

1. On-site personnel shall observe operations whenever the paint booths and media blasting is in use, and shall investigate any occurrence of visible fugitive emissions. Corrective action shall be immediately taken to correct causes of fugitive emissions in excess of allowable opacity limits. *[AQR 26]*

2. If the observer, during the visible emissions check, does not see any plume that, on an instantaneous basis, appears to exceed the opacity standard, then the observer shall keep a record of the name of the observer, the date on which the observation was made, the location, and the results of the observation. *[AQR 12.8.1.d]*

3. If the observer sees a plume that, on an instantaneous basis, appears to exceed the opacity standard, then the Permittee shall have a certified VE observer take an EPA Method 9 observation of the plume and record the results. *[AQR 12.8.1.d]*

4. If Method 9 readings can not be obtained, the observer shall also indicate in the log: a) the color of the emissions, b) whether the emissions were light or heavy, c) the cause of the abnormal emissions, and d) any corrective action taken. *[AQR 12.8.1.c]*

5. Visible emissions observations do not require a certified VE observer, except where visible emissions appear to exceed the allowable opacity limit and exceed 30 seconds in duration. *[AQR12.8.1.d]*

6. All opacity observations that require compliance with EPA Method 9 shall be performed by observers that hold a valid Visible Emissions (VE) certificate. *[AQR 12.8.1.d]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information: *[40 CFR 60.7-60.11, AQR 12.8.1.h]*

a. records of the total monthly consumption (in gallons) of each VOC-containing compound (paints, basecoats, primers, reducers, thinners, solvents) and shall be made available to DAQEM upon request;

b. the dates and time of the visible emissions check, the name of the person conducting the check, the results of the check, and the type of corrective action taken (if required);

c. MSDS or records demonstrating the VOC and HAP content for each compound; and

d. a logbook of spray paint booth inspections (as specified in Section XII-B-2), maintenance and repair.

2. Records demonstrating the VOC and HAP content of each VOC-containing compound shall be kept on-site by the Permittee and made available to DAQEM upon request. *[AQR 12.8.1.d]*

3. The Permittee shall comply with the record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. The Permittee shall supply DAQEM with the model number and serial number identified as to be determined (TBD) in the emission unit list (Table XIII-A-1) within 30 days of installation of any new unit in the form of an administrative change request. *[AQR 12.8.1.d]*

2. In accordance with Section II of this permit, the Permittee shall submit: *[AQR 12.8.1.e]*

a. A table containing a list of all compounds recorded pursuant to Condition XIII-D-1, the total rolling 12-month usage of the compound, the VOC content of the compounds and the HAP content of the compound.

b. A list of all inspections, performed pursuant to Condition XIII-D-1-(b and d) that found faults and the actions taken to correct those faults.

3. The Permittee shall submit a summary of items stipulated by Condition XIII-D-1 in accordance with the reports and reporting requirements in Section II of this permit. *[AQR 12.8.1.e]*

F. Testing

1. The Permittee shall comply with the general performance testing requirements in Section II of this permit. *[AQR 12.8.1.e]*

XIV. COOLING TOWERS

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section XIII (11/17/08)]

A. Emission Units

Table XIV-A-1: Emission Units

EU#	Description	SCC	Type[1]
C001	EVAPCO, M/N: USS1956, S/N: W037346, Bldg 11	38500110	DM
C002	EVAPCO, M/N: USS1988, S/N: W037667, Bldg 200	38500110	DM
C003	EVAPCO, M/N: USS1988, S/N: 4108704, Bldg 200	38500110	DM
C004	BAC, M/N: 33341T, S/N: 99-206271, Bldg 340	38500110	P1
C005	BAC, M/N: 33269T, S/N: 97-228901, Bldg 554	38500110	DM
C006	RECOLD, M/N: JW-50C, S/N: 97503, Bldg 589	38500110	DM
C007	BAC, M/N: VTO-102, S/N: 97-200381, Bldg 595	38500110	DM
C008	BAC, M/N: VTO-102, S/N: 97-200382, Bldg 595	38500110	DM
C009	RSD, M/N: TSC-225, S/N: 76498, Bldg 625	38500110	DM
C010	RSD, M/N: TSC-225, S/N: N/A, Bldg 625	38500110	DM
C011	BAC, M/N: FXT-87, S/N: 97-220511, Bldg 704	38500110	DM
C012	BAC, M/N: FXT-38, S/N: USA151401, Bldg 767	38500110	DM
C013	BAC, M/N: FXT-260, S/N: 97-215921, Bldg 791	38500110	DM
C014	MARLEY, M/N: NC8304E-ISS, S/N: 231320-A1, Bldg 1301	38500110	P1
C015	MARLEY, M/N: NC8304E-ISS, S/N: 231320-B1, Bldg 1301	38500110	P1
C016	MARLEY, M/N: NC8304E-ISS, S/N: 231320-C1, Bldg 1301	38500110	P1

[1] Billing Codes: P1 = Process Equipment; DM = De minimis unit (source has negligible emissions or is not subject to an annual fee).

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from the cooling tower operations to exceed the PTE listed in Table XIV-B-1. *[AQR 12.8.1.a]*

b. The Permittee shall not allow visible emissions in excess of the 20 percent opacity, as determined by conducting observations in accordance with EPA Method 9, from the emission units listed in Table XIV-A-1. *[AQR 12.8.1.c]*

Table XIV-B-1: PTE for Cooling Towers

EU#	Throughput (gal/min)	TDS (lbs/gal)	Drift Percent	PM_{10} Emissions (tons/yr)[1]
C001	325	0.02	0.001	0.01
C002	625	0.02	0.001	0.02
C003	625	0.02	0.001	0.02
C004	1,155	0.02	0.005	0.14
C005	700	0.02	0.005	0.09

EU#	Throughput (gal/min)	TDS (lbs/gal)	Drift Percent	PM_{10} Emissions (tons/yr)[1]
C006	210	0.02	0.001	0.01
C007	500	0.02	0.002	0.02
C008	500	0.02	0.002	0.02
C009	675	0.02	0.003	0.05
C010	675	0.02	0.003	0.05
C011	340	0.02	0.005	0.04
C012	340	0.02	0.005	0.04
C013	937	0.02	0.005	0.12
C014	1,200	0.03	0.005	0.22
C015	1,200	0.03	0.005	0.22
C016	1,200	0.03	0.005	0.22

[1]PTE calculations based on DAQEM default values that assume that 47.3 percent of total particulate matter emissions from the cooling towers are emitted as PM_{10}. The PTE calculations for each cooling tower were based on 24 hours per day and 8,760 hours per rolling 12-months of operation.

2. Production Limits

The circulation rate (gallons/minute) and total dissolved solids (pounds/gallon) shall not exceed those listed for each unit in Table XIV-B-1.

3. Emission Controls

a. The drift rate (percent drift) and total dissolved solids shall not exceed those listed in Table XIV-B-1. *[AQR 12.8.1.c]*

b. All cooling towers shall be operated and maintained in accordance with the manufacturer's recommendations. No chromium-containing compounds shall be used for water treatment. *[AQR 12.8.1.d]*

C. Monitoring

1. Pursuant to Section 25 of the AQR, any upset/breakdown or malfunction which causes emissions of regulated air pollutants in excess of any limits set by the AQR or by this permit shall be reported to the Control Officer within one hour of the onset of such event. *[AQR Section 25]*

2. On a calendar-quarter basis, the source shall conduct total dissolved solid (TDS) sampling of the cooling tower water using a TDS or conductivity meter to demonstrate compliance with the PTE of each cooling tower. *[AQR 12.8.1.d]*

3. The Control Officer may require testing to demonstrate compliance with emission limitations outlined in this permit. *[AQR 12.8.1.d]*

D. Record Keeping

1. Records and data required by this permit are to be maintained by the Permittee and may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[AQR 12.8.1.d]*

2. The Permittee will maintain records and logs that contain, at minimum, the following information:

a. the results of the calendar-quarter sampling;

b. emission limit exceedences, upsets, emergencies, malfunctions, and breakdowns; the times, durations and probable causes of such incidences; and the corrective and/or preventative actions taken to restore and maintain compliance;
c. records from the quarterly visible emissions check; and
d. quarterly and rolling 12-months hours of operation for all cooling towers. *[40 CFR 60.7-60.11, AQR 12.8.1.h]*

3. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. The Permittee shall submit a summary of items stipulated by Condition XIV-D-2 in accordance with the reports and reporting requirements in Section II of this permit. [AQR 12.8.1.e]

F. Testing

1. The Permittee shall comply with the general performance testing requirements in Section II of this permit. [AQR 12.8.1.e]

XV. INCINERATOR

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section XIV (11/17/08)]

A. Emission Units

Table XV-A-1: Emission Units

EU#	Description	SCC	Type[1]
H001	Hospital Incinerator at Bldg. 1301	50100505	F1

[1]Billing Codes: F1 = Fuel Burning Equipment.

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from the operation of the incinerator to exceed the calculated PTE listed below in Tables XV-B-1 and XV-B-2. *[AQR 12.8.1.a]*
b. Visible emissions from the incinerator shall not exhibit in excess of five (5) percent opacity as determined by conducting observations in accordance with EPA Method 9, except for a period or periods aggregating more than one (1) minute in any 60-minute period during which time a visible emission not in excess of 20 percent opacity shall be permitted. *[AQR 26.2.2]*

Table XV-B-1: PTE: Hospital Incinerator

EU#	Emission Rate	PM_{10}	NO_X	CO	SO_X	VOC
H001	lbs/hour	0.04	0.09	0.01	0.05	0.01
	tons/rolling 12-months	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**

Table XV-B-2: PTE of HAPs: Hospital Incinerator

CAS #	Pollutant (HAPs)	Emissions (lbs/hour)	Emissions (tons/rolling 12-months)
778205	Chlorine	2.63E-03	2.73E-04
7664393	Hydrogen Fluoride	3.73E-03	3.87E-04
7647010	Hydrogen Chloride	8.38E-01	8.71E-02
7440473	Chromium Metal	1.94E-05	2.02E-06
7440439	Cadmium	1.37E-04	1.43E-05
7440417	Beryllium Compounds	1.56E-07	1.60E-08
7440382	Arsenic	6.05E-06	6.29E-07
7440360	Antimony	3.20E-04	3.33E-05
7440020	Nickel Metal	1.48E-05	1.54E-06
7439976	Mercury Compounds	2.68E-03	2.78E-04
7439965	Manganese Compounds	1.42E-05	1.47E-06
7439921	Lead	1.82E-03	1.89E-04
1746016	Tetrachloro-Dibenzo-p-Dioxin	2.50E-08	3.00E-09
1336363	Polychlorinated Biphenyls	1.16E-06	1.21E-07
132649	Dibenzofuran	1.79E-06	1.86E-07
Totals		**8.49E-01**	**8.83E-02**

2. Production Limits

a. The hospital incinerator is permitted to incinerate only pathological waste, low-level radioactive waste and/or chemotherapeutic waste.

b. The amount of waste incinerated shall exceed neither 50 pounds per hour, 100 pounds per day, nor 10,400 pounds per rolling 12-months (5.2 tons per rolling 12-months).

c. The hospital incinerator shall burn only natural gas for fuel. No other fuel shall be used.

d. Pursuant to AQR SIP-approved Section 30 (April 23, 1987) and local-only Section 30 (July 1, 2004), no combustible solid refuse shall be burned in any incinerator, cremation device, pathological destructor, or any other device used for disposal or recovery of material by burning, other than in a multiple chamber incinerator or other designed incinerator approved in advance by the Control Officer for which a current and valid operating permit is in effect. *[AQR 12.8.1.c]*

3. Emission Controls

a. Pursuant to AQR SIP-approved Section 30 (April 23, 1987), allowable particulate emissions from the incinerator shall not exceed E = 80 x 10-5 C, where E is the maximum allowable rate of emission of particulate in pounds per hour and C is the rate of dry refuse charged in pounds per hour. *[AQR 30]*

b. The incinerator shall not be operated at a temperature in the primary chamber below 1,400 ºF or above 2,000 ºF. If at any time the temperature drops below 1,400 ºF, incineration shall be discontinued until the operating temperature exceeds 1,400 ºF. *[AQR 30.3.1] (Local Only)*

c. The incinerator shall be equipped with a temperature-measuring device installed in the primary chamber at a location that will provide accurate and representative temperature readings, and a temperature gauge shall be placed at a location that is clearly visible to the operator. This temperature device shall be operated at all times when the device is being charged. To record temperatures, a continuous recorder that records hourly temperature readings shall be installed, calibrated and maintained. *[AQR 30.3.2] (Local Only)*

d. No odors shall be released by the operation of the incinerator. The Control Officer shall deem the odor occurrence a violation if he is able to detect the odor twice within a period of one (1) hour, if the odor is of such a nature as to cause a nuisance, and these detections are separated by at least 15 minutes. *[AQR 12.8.1.d]*

C. Monitoring

1. The temperature in the primary chamber of the incinerator shall be maintained at a temperature equal to or greater than 1400 ºF. If the manufacturer specifies a temperature higher than 1400 ºF, that temperature shall be the minimum temperature while incineration is occurring. At no time shall the incinerator temperature be allowed to drop below the minimum temperature during incineration. *[AQR 30.3.1]*

2. The incinerator shall be equipped with an audible alarm that warns the operator when the temperature drops below 1400 ºF and when it exceeds 2000 ºF. *[AQR 30.3.1]*

3. The incinerator shall be equipped with a temperature-measuring device installed in the primary chamber at a location that will provide accurate and representative temperature readings, and a temperature gauge shall be placed at a location that is clearly visible to the operator. This temperature device shall be operated at all times when the unit is being charged. To record temperatures, a continuous recorder that records hourly temperature readings shall be installed, calibrated and maintained. *[AQR 30.3.2]*

4. Operating instructions for the incinerator shall be conspicuously posted at or near the charging door. *[AQR 30.3.3]*

5. Maintenance shall be performed annually on the unit in accordance with the manufacturer's recommendations. *[AQR 30.3.4]*

6. The Permittee shall conduct a visible emissions check whenever the incinerator is used. A visible emission check is verification that abnormal emissions are not present at the exhaust stack. Corrective action shall be immediately taken to correct causes of fugitive emissions in excess of allowable opacity limits. *[AQR 12.8.1.c]*

7. If the observer, during the visible emissions check, does not see any plume that, on an instantaneous basis, appears to exceed the opacity standard, then the observer shall keep a record of the name of the observer, the date on which the observation was made, the location, and the results of the observation. *[AQR 12.8.1.d]*

8. If the observer sees a plume that, on an instantaneous basis, appears to exceed the opacity standard, then the Permittee shall have a certified VE observer take an EPA Method 9 observation of the plume and record the results. *[AQR 12.8.1.d]*

9. If Method 9 readings can not be obtained, the observer shall also indicate in the log: a) the color of the emissions, b) whether the emissions were light or heavy, c) the cause of the abnormal emissions, and d) any corrective action taken. *[AQR 12.8.1.c]*

10. Visible emissions observations do not require a certified VE observer, except where visible emissions appear to exceed the allowable opacity limit and exceed 30 seconds in duration. *[AQR12.8.1.d]*

11. All opacity observations that require compliance with EPA Method 9 shall be performed by observers that hold a valid Visible Emissions (VE) certificate. *[AQR 12.8.1.d]*

12. Records and data required by this permit to be maintained by Permittee may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[AQR 12.8.1.d]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information: *[40 CFR 60.7-60.11, AQR 12.8.1.h]*

a. demonstration that only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste are combusted in the VA Hospital incinerator.
b. the date and daily pounds of matter incinerated;
c. the daily hours of operation for the incinerator;
d. the quarterly consumption of natural gas for the incinerator;
e. the temperature readings taken each time matter is incinerated;
f. the dates and time of the visible emissions check, the name of the person conducting the check, the results of the check, and the type of corrective action taken (if required); and
g. the date, time, and results of performance testing (EPA Method 5 and EPA Method 9).

2. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. The Permittee shall submit a summary of items stipulated by Condition XV-D-1 in accordance with the reports and reporting requirements in Section II of this permit. *[AQR 12.8.1.e]*

F. Testing

1. Compliance with the opacity standards in Section XIV-B-1-b of this permit shall be demonstrated in accordance with EPA Method 9 (Standards for Opacity) conducted and recorded annually, unless a shorter averaging time is specified in a applicable NSPS. *[AQR 12.8.1.h]*

2. Initial performance testing has been conducted. The Control Officer may require additional performance testing for particulate matter. Subsequent performance testing for opacity shall be conducted on or before the anniversary date of the last performance test. *[AQR 4.5]*

3. The Control Officer may require additional performance testing to demonstrate compliance with emission limitations outlined in this permit (Table XV-B-1). *[AQR 12.8.1.h]*

Table XV-F-1: Performance Testing Protocol Requirements

Test Point	Pollutant	Method
Incinerator Exhaust Outlet Stack	Opacity	60-minute EPA Method 9
	PM_{10}	EPA Method 5

4. The Permittee shall comply with the general performance testing requirements in Section II of this permit. *[AQR 12.8.1.e]*

XVI. WOOD WORKING

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section XVI (11/17/08)]

A. Emission Units

Table XVI-A-1: Emission Units

EU#	Description	SCC	Type[1]
E001	Building 807, 99th CES Woodworking Shop-cyclone\fabric filter, 99% control efficiency	30703097	DM
E002	Building 811, 99th CES LGRTC-Packing Shop, 99 CES Vertical Shop – cyclone\fabric filter, 99% control efficiency	30703097	DM
E003	Building 10118, RHS Carpentry Shop-cyclone\fabric filter, 99% control efficiency	30703097	DM
E004	Building 610, MWR Woodworking Shop – cyclone\fabric filter, 99% control efficiency	30703097	DM

[1]Billing Codes: DM = De minimis unit (source has negligible emissions or is not subject to an annual fee).

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from the woodworking operation to exceed the calculated PTE listed below in Table XVI-B-1. *[AQR 12.8.1.a]*

b. The Permittee shall not allow visible emissions in excess of the 20 percent opacity, as determined by conducting observations in accordance with EPA Method 9, from the emission units listed in Table XVI-A-1. *[AQR 12.8.1.c]*

Table XVI-B-1: PM_{10} PTE: Woodworking Shops

EU#	Emission Factor per sander	Emission Factor per Piece of Equipment	Number of Sanders	Pieces of Equipment	Rolling 12-months Hours of Operation	PM_{10} Emissions (lbs/hr)	PM_{10} Emissions (tons/yr)
E001	5 lbs/hour	2 lbs/hour	1	10	8,760	0.13	0.56
E002	5 lbs/hour	2 lbs/hour	0	5	8,760	0.05	0.22
E003	5 lbs/hour	2 lbs/hour	2	5	8,760	0.10	0.45
E004	5 lbs/hour	2 lbs/hour	6	16	2,080	0.32	0.33

2. Production Limits

a. The equipment located in the woodworking shop in Building 610 (EU: E004) is allowed to operate up to 24 hours per day and up to 2,080 hours per rolling 12-months. *[AQR 12.8.1.a]*

3. Emission Controls

a. Pursuant to Section 41 of the AQR, woodworking operations shall have particulate emissions controlled by a method that will prevent excessive dust dispersal.

b. All control devices used to control particulate emissions from all wood working activities in all of the woodworking shops (EUs: E001, E002, E1003, and E004) shall be maintained and operated per manufacturers' recommendations to maintain at least 99 percent control efficiency. *[AQR 12.8.1.c]*

c. Good housekeeping practices shall be employed to minimize the accumulation or dispersal of particulate matter from sanding, blasting, surface preparation, etc carried out in conjunction with woodworking operations. *[AQR 12.8.1.d]*

d. Particulate control devices shall not exhibit visible emissions greater than 20 percent opacity as determined by conducting observations in accordance with EPA Method 9. If visible emissions are present as described above, the Permittee shall cease operations producing the emissions until the problem is corrected. *[AQR 12.8.1.c]*

e. On-site personnel shall observe operations when in use, and shall investigate any occurrence of visible fugitive dust. Corrective action shall be immediately taken to correct causes of fugitive dust in excess of allowable opacity limits. *[AQR 12.8.1.d]*

f. Monthly visual inspection shall be made of the particulate control devices for air leaks. Defective cyclone and fabric filter compartments shall be sealed off and work orders for repairs shall be submitted within 72 hours of discovery of the malfunction, and all repairs shall be made in a timely manner. Should the malfunction cause the cyclone and/or fabric filter to be ineffective in controlling particulate emissions, the processing of material shall cease until such repairs to the cyclone and/or fabric filter are completed. *[AQR 12.8.1.d]*

g. A preventative maintenance schedule that is consistent with the cyclone and/or fabric filter manufacturer's instructions for routine and long-term maintenance shall be developed and followed. *[AQR 12.8.1.d]*

h. The Permittee shall have a standard operating procedures (SOP) manual for cyclones and fabric filters. The procedures specified in the manual for maintenance shall, at a minimum, include a preventative maintenance schedule that is consistent with the cyclone or fabric filter manufacturer's instructions for routine and long-term maintenance. *[AQR 12.8.1.d]*

C. Monitoring

1. Records and data required by this permit are to be maintained by the Permittee and may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[AQR 12.8.1.d]*

2. The Permittee shall conduct a visible emissions check whenever the woodworking shop is used. A visible emission check is verification that abnormal emissions are not present at the exhaust stack. Corrective action shall be immediately taken to correct causes of fugitive emissions in excess of allowable opacity limits. *[AQR 12.8.1.c]*

3. If the observer, during the visible emissions check, does not see any plume that, on an instantaneous basis, appears to exceed the opacity standard, then the observer shall keep a record of the name of the observer, the date on which the observation was made, the location, and the results of the observation. *[AQR 12.8.1.d]*

4. If the observer sees a plume that, on an instantaneous basis, appears to exceed the opacity standard, then the Permittee shall have a certified VE observer take an EPA Method 9 observation of the plume and record the results. *[AQR 12.8.1.d]*

5. If Method 9 readings can not be obtained, the observer shall also indicate in the log: a) the color of the emissions, b) whether the emissions were light or heavy, c) the cause of the abnormal emissions, and d) any corrective action taken. *[AQR 12.8.1.c]*

6. Visible emissions observations do not require a certified VE observer, except where visible emissions appear to exceed the allowable opacity limit and exceed 30 seconds in duration. *[AQR12.8.1.d]*

7. All opacity observations that require compliance with EPA Method 9 shall be performed by observers that hold a valid Visible Emissions (VE) certificate. *[AQR 12.8.1.d]*

8. Written standards of procedure (SOP) shall be maintained and contain procedures for tracking material usage. *[AQR 12.8.1.d]*

9. The Control Officer may require testing to demonstrate compliance with emission limitations outlined in this permit. *[AQR 12.8.1.d]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information: *[40 CFR 60.7-60.11, AQR 12.8.1.h]*

a. emission limit exceedences, upsets, emergencies, malfunctions, and breakdowns; the times, durations and probable causes of such incidences; and the corrective and/or preventative actions taken to restore and maintain compliance;

b. the dates and time of the visible emissions check, the name of the person conducting the check, the results of the check, and the type of corrective action taken (if required);

c. hours of operations of each cyclone/fabric filters used in the woodworking shops;

d. log of control device inspections, maintenance and repair.

2. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. The Permittee shall submit a summary of items stipulated by Condition XVI-D-1 in accordance with the reports and reporting requirements in Section II of this permit. *[AQR 12.8.1.e]*

F. Testing

1. Upon request of the Control Officer, performance testing shall be conducted on the cyclones and fabric filters in accordance with EPA Method 9 (Standards for Opacity). *[AQR 4.5]*

2. The Permittee shall comply with the general performance testing requirements in Section II of this permit. *[AQR 12.8.1.e]*

XVII. DEGREASERS

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section XVI (11/17/08)]

A. Emission Units

Table XVII-A-1: Emission Units

EU	Building	Type of Cleaner	SCC	Make/Model	Capacity (gallons)	Billing Code[1]
M001	B-234 Tire Shop	Parts (solvent)	40400151	Clarus/PCS-25	27.5	DM
M002	B-264 Armament	Parts (solvent)	40400151	Clarus/PCS-25	27.5	DM
M003	B-270 Pneudraulic	Parts (solvent)	40400151	Clarus/PCS-25	27.5	DM
M004	B-415	Parts (solvent)	40400151	Clarus/PCS-25	25	DM
M005	B-415	Parts (solvent)	40400151	Clarus/PCS-25	25	DM
M006	B-474 (Pet Zoo)	Paint Gun	40400151	Paint-Safe	N/A	DM
M007	B-802 Liquid Fuels	Parts (solvent)	40400151	Graymills/PL32-A	15	DM
M008	B-808	Parts (solvent)	40400151	Clarus/PCS-25	27.5	DM
M009	831	Parts (solvent)	40400151	Clarus/PCS-25	27.5	DM
M010	858	Parts (solvent)	40400151	Clarus/PCS-25	17, 27.5	DM
M011	858	Parts (solvent)	40400151	Clarus/PCS-15	17, 27.5	DM
M012	858	Parts (solvent)	40400151	Aladdin	27.5	DM
M013	858	Parts (solvent)	40400151	*Unidentified*	7	DM
M014	858	Parts (solvent)	40400151	*Unidentified*	7	DM
M015	1033	Parts (solvent)	40400151	Powers System	25	DM
M016	1590	Parts (solvent)	40400151	Zep/906201	20	DM
M017	10108	Parts (solvent)	40400151	Clarus/PCS-25	27.5	DM
M018	10108	Parts (solvent)	40400151	Clarus/PCS-25	27.5	DM
M019	10240	Parts (solvent)	40400151	Safety Kleen/17	27.5	DM
M020	61664	Parts (solvent)	40400151	Clarus/PCS-25	27.5	DM

EU	Building	Type of Cleaner	SCC	Make/Model	Capacity (gallons)	Billing Code[1]
M021	B-10116 Red Horse	Parts (solvent)	40400151	Clarus/PCS-25	27.5	DM
M022	B-10143 Red Horse	Parts (solvent)	40400151	Clarus/PCS-25	27.5	DM
M023	B-10143 Red Horse	Parts (solvent)	40400151	Clarus/PCS-25	27.5	DM

[1]Billing Codes: DM = De minimis unit (source has negligible emissions or is not subject to an annual fee).

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from each degreasing operation to exceed the calculated PTE listed below in Table XVII-B-1. *[AQR 12.8.1.a]*

Table XVII-B-1: PTE for Degreasing Activities

EU	Hours/ Rolling 12-months	Area (ft^2)	Emission Factor (lb/hour/ft^2)	VOC (lb/hour)	HAP (lb/hour)	VOC (ton/rolling 12-months)	HAP (ton/rolling 12-months)
M001	208	8.1	0.08	0.65	0.00	0.067	0.00
M002	208	8.1	0.08	0.65	0.00	0.067	0.00
M003	208	8.1	0.08	0.65	0.00	0.067	0.00
M004	208	8.1	0.08	0.65	0.00	0.067	0.00
M005	208	8.1	0.08	0.65	0.00	0.067	0.00
M006[1]	N/A	N/A	0.08	7.49	5.24	0.075	0.052
M007	208	1.4	0.08	0.11	0.00	0.012	0.00
M008	208	8.1	0.08	0.65	0.00	0.067	0.00
M009	208	8.1	0.08	0.65	0.00	0.067	0.00
M010	208	8.1	0.08	0.65	0.00	0.067	0.00
M011	208	6.9	0.08	0.55	0.00	0.057	0.00
M012	208	8.1	0.08	0.55	0.00	0.057	0.00
M013	208	1.7	0.08	0.14	0.00	0.015	0.00
M014	208	1.7	0.08	0.14	0.00	0.015	0.00
M015	208	8.1	0.08	0.65	0.00	0.067	0.00
M016	208	8.1	0.08	0.65	0.00	0.067	0.00
M017	208	8.1	0.08	0.65	0.00	0.067	0.00
M018	208	8.1	0.08	0.65	0.00	0.067	0.00
M019	208	8.1	0.08	0.65	0.00	0.067	0.00
M020	208	8.1	0.08	0.65	0.00	0.067	0.00
M021	416	8.1	0.08	0.65	0.00	0.13	0.00
M022	416	8.1	0.08	0.65	0.00	0.13	0.00
M023	416	8.1	0.08	0.65	0.00	0.13	0.00

[1]Limited to 20 gallons per rolling 12-months.

2. Production Limits

a. Each part cleaner (EUs: M001 through M005, inclusive, and M007 through M023, inclusive) shall be limited in hours of operations per rolling 12-months as outlined in Table XVII-B-1. *[AQR 12.8.1.a]*

b. The paint spray gun cleaner (EU: M006) shall be limited to no more than 20 gallons per rolling 12-months of solvent usage. *[AQR 12.8.1.a]*

3. Emission Controls

a. The Permittee shall implement good operating practices to reduce VOC emissions by ensuring that all lids to degreasing units remain closed except when the unit is in use. *[AQR 12.8.1.d]*

C. Monitoring

1. The Permittee shall post signs at all degreasing areas that state that all lids to degreasing units must remain closed except when the unit is in use. It is the responsibility of the Permittee to ensure that all personnel follow this procedure. Should any inspection by DAQEM indicate that lids are not being properly closed when units are not in use, enforcement action may occur. *[AQR 12.8.1.d]*

2. The Control Officer may require testing to demonstrate compliance with emission limitations outlined in this permit. *[AQR 12.8.1.d]*

3. Records and data required by this permit to be maintained by the Permittee may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[AQR 12.8.1.d]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information: *[40 CFR 60.7-60.11, AQR 12.8.1.h]*

a. the date and hours and/or minutes that each of the part cleaners (EUs: M001 through M005, inclusive, and M007 through M023, inclusive) are in use; and

b. the gallons of solvent used in the spray gun cleaning operation (EU: M006). *[AQR 12.8.1.d]*

2. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. The Permittee shall submit a summary of items stipulated by Condition XVII-D-1 in accordance with the reports and reporting requirements in Section II of this permit. *[AQR 12.8.1.e]*

F. Testing

1. The Permittee shall comply with the general performance testing requirements in Section II of this permit. *[AQR 12.8.1.e]*

XVIII. FUEL CELL MAINTENANCE

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section XVII (11/17/08)]

A. Emission Units

Table XVIII-A-1: Emission Units

EU#	Description	SCC	Type[1]
L001	Building 199, Fuel Cell Maintenance	40400151	DM

[1]Billing Codes: DM = De minimis unit (source has negligible emissions or is not subject to an annual fee).

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from fuel cell maintenance operation to exceed the calculated PTE listed below in Table XVIII-B-1. *[AQR 12.8.1.a]*

Table XVIII-B-1: PTE: Fuel Cell Maintenance

EU#	Tank Volume (gal)	Maximum VOC Emissions (tons/yr)	Maximum HAP Emissions (tons/yr)
L001	738	0.36	1.55E-02

2. Production Limits

a. Nellis AFB shall be limited to 3,200 fuel cell purges per rolling 12-months. *[AQR 12.8.1.a]*

3. Emission Controls

a. Nellis AFB shall implement good operating practices to reduce VOC emissions by proper clean up of fuel spills and proper clean up of rags and sponges. *[AQR 12.8.1.d]*

b. The Permittee shall have a standard operating procedures (SOP) manual for fuel cell maintenance activities. The procedures specified in the manual shall outline good operating practice with regard to the reduction of VOC emissions from this operation. *[AQR 12.8.1.d]*

C. Monitoring

1. Records and data required by this permit, including the number of fuel cell purges, are to be maintained by the Permittee and may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[AQR 12.8.1.d]*

2. Unless DAQEM pre-approves another emission methodology, the source shall calculate emissions from this activity by the following equation: *[AQR 12.8.1.c]*

0.0023 * Volume of Fuel Cell (gallons) * 0.134 * Number of Purges = Lbs. VOC Lbs. VOC * 0.043055 = Lbs. HAPs

3. The Control Officer may require testing to demonstrate compliance with emission limitations outlined in this permit. *[AQR 12.8.1.d]*

4. Written standards of procedure (SOP) shall be maintained and contain procedures for the minimization of VOC emissions from fuel cell purging activities. *[AQR 12.8.1.d]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information: *[40 CFR 60.7-60.11, AQR 12.8.1.h]*

a. The number of fuel cell purges; and
b. information regarding any variables of parameters outlined in Condition XVIII-B-3-b for emission calculations.

2. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. The Permittee shall submit a summary of items stipulated by Condition XVIII-D-1 in accordance with the reports and reporting requirements in Section II of this permit. *[AQR 12.8.1.e]*

F. Testing

1. The Permittee shall comply with the general performance testing requirements in Section II of this permit. *[AQR 12.8.1.e]*

XIX. MISCELLANEOUS CHEMICALS

[Authority for all values, limits, and conditions in this section: NSR ATC/OP, Modification 46, Revision 1, Section XVIII (11/17/08)]

A. Emitting Activities

Table XIX-A-1: Summary of Emission Activities

EU	Description	SCC Code	Type[1]
O01	Source-wide Miscellaneous Chemical Usage	2460000000	P1

[1]Type refers to billing code: P1 = Process.

B. Emission Limitations and Standards

1. Emission Limits

a. The Permittee shall allow neither the actual nor the allowable emissions from miscellaneous chemical usage to exceed the calculated PTE listed below in Table XIX-B-1. *[AQR 12.8.1.a]*

Table XIX-B-1: PTE for Miscellaneous Chemical Usage

EU	VOC		HAP	
	Pounds per Calendar Quarter	Ton per Rolling 12-months	Pounds per Calendar Quarter	Ton per Rolling 12-months
O01	14,360	9.57	2,120	1.41

2. Production Limits

a. The quarterly limitation for miscellaneous chemical consumption with regard to the emissions of VOCs shall be calculated using the following formula: Consumption * Density * VOC Content / 100 = 14,360 pounds of VOC per calendar quarter, where:
   i. Consumption is the amount (in gallons) of each product used during that calendar quarter;
   ii. Density is the lb/gallon of each product used during that calendar quarter; and

iii. VOC Content is the weight percent of VOC in each product used during that calendar quarter. *[AQR 12.8.1.a]*

b. The quarterly consumption limitation with regard to the emissions of HAPs shall be calculated using the following formula: Consumption * Density * HAP Content / 100 = 2,120 pounds of HAPs per calendar quarter, where:
   i. Consumption is the amount (in gallons) of each product used during that calendar quarter;
   ii. Density is the lb/gallon of each product used during that calendar quarter; and
   iii. HAP Content is the weight percent of HAP in each product used during that calendar quarter. *[AQR 12.8.1.a]*

c. The annual production limitations shall be based on four (4) consecutive, rolling calendar quarters. The annual emissions shall not exceed the ton-per-rolling 12-months limitations outlined in Table XIX-B-1. *[AQR 12.8.1.a]*

3. Emission Controls

a. As part of good operating practices, Nellis AFB personnel shall implement the following guidelines to reduce VOC emissions from miscellaneous chemical usage:
   i. minimize chemical usage, where possible;
   ii. substitute low vapor pressure cleaners, where possible; and
   iii. substitute low VOC alternatives, where possible. *[AQR 12.8.1.d]*

C. Monitoring

1. Records and data required by this permit are to be maintained by the Permittee and may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[AQR 12.8.1.d]*

D. Record Keeping

1. The Permittee will maintain records and logs that contain, at minimum, the following information: *[40 CFR 60.7-60.11, AQR 12.8.1.h]*

a. amount of each VOC- and HAP-containing chemical consumed;
b. density of each VOC- and HAP-containing chemical consumed;
c. VOC and HAP content of each VOC- and HAP-containing chemical consumed; and
d. information related to practices outlined in Condition XIX-B-2-a.

2. The Permittee shall comply with the general record keeping requirements in Section II of this permit. *[AQR 12.8.1.e]*

E. Reporting

1. The Permittee shall submit a summary of items stipulated by Condition XIX-D-1 in accordance with the reports and reporting requirements in Section II of this permit. *[AQR 12.8.1.e]*

F. Testing

1. The Permittee shall comply with the general performance testing requirements in Section II of this permit. *[AQR 12.8.1.e]*

XX. MITIGATION

Mitigation is not required by this permitting action.

XXI. ON-SITE AMBIENT MONITORING

On-site ambient monitoring is not required by this permitting action.

ATTACHMENTS

Attachment 1: Table 1 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More

If you own or operate	Then you must
1. A new, reconstructed, or existing GDF subject to §63.11118	Install and operate a vapor balance system on your gasoline storage tanks that meets the design criteria in paragraphs (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:
	$Pf = 2e^{-500.887/v}$
	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.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 35944, June 25, 2008]

Attachment 2 :Table 2 to Subpart CCCCCC of Part 63—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

If you own or operate	Then you must
A gasoline cargo tank	Not unload gasoline into a storage tank at a GDF subject to the control requirements in this subpart 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 by vapor-tight gasoline cargo tanks. Documentation that the cargo tank has met the specifications of EPA Method 27 shall be carried on the cargo tank.