DES
DEPARTMENT OF ENVIRONMENT AND SUSTAINABILITY
air quality desert conservation PROGRAM sustainability

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PART 70
TECHNICAL SUPPORT DOCUMENT
(STATEMENT of BASIS)

APPLICATION FOR:
Revision of Part 70 Operating Permit

SUBMITTED BY:
United States Air Force, 99th ABW
Source ID: 114

LOCATION:
4430 Grissom Avenue, Suite 101
Nellis AFB, Nevada 89191-6520

SIC code 9711, "National Security"
NAICS code 92811, "National Security"

Date: December 28, 2021

EXECUTIVE SUMMARY

Nellis Air Force Base (NAFB) is located in Clark County, Nevada, near the City of Las Vegas. The facility is a major source located in Hydrographic Area (HA) 212 (Las Vegas Valley) and HA 215 (Black Mountains Area). HA 212 is currently designated as attainment for all pollutants except ozone and it is subject to a maintenance plan for the CO and PM_{10} NAAQS. HA 212 was designated a marginal nonattainment area for ozone on August 3, 2018, for the 2015 standard. The designation has not imposed any new requirements at this time. HA 215 is in attainment for all criteria pollutants.

NAFB is permitted as a Part 70 major source of NO_X, a synthetic minor 80 (SM80) of VOC, a synthetic minor source for PM_{10}, $PM_{2.5}$, CO, and HAP, and a minor source for SO_2. NAFB belongs to a stationary source category which, as of August 7, 1980, is being regulated under Section 111 or 112 of the Act (Asphalt Plants). Therefore, fugitive emissions are included in source status determination. NAFB is a source of greenhouse gases (GHG).

The following table summarizes the source potential to emit for each regulated air pollutant from all emission units addressed by this Part 70 Operating Permit (OP):

Source PTE (tons per year)

	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAP	GHG[1]
Source PTE	**46.50**	**19.81**	**188.87**	**64.10**	**3.95**	**81.97**	**20.18**	**33,952.41**
Major Source Thresholds (Title V)	100	100	100	100	100	100	10/25[1]	-
Major Stationary Source Thresholds (PSD)	250	250	250	250	250	250	10/25[1]	-
Major Stationary Source Threshold (Nonattainment)	-	-	100	-	-	100	-	-

[1]GHG expressed as CO_2.

Clark County Department of Environment and Sustainability (DES) has delegated authority to implement the requirement of the Part 70 OP program. Based on information submitted by the applicant and a technical review performed by the Division of Air Quality (DAQ) staff, DAQ issued a renewal to the Part 70 OP on June 15, 2021. Since that time, NAFB applied for AQR 12.4.3.2(b) revisions on March 10, 2021, May 27, 2021, and July 14, 2021.

Based on information submitted by the applicant and a technical review performed by DAQ staff, DAQ proposes the issuance of a Part 70 OP to Nellis Air Force Base.

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LIST OF TABLES

I. ACRONYMS AND ABBREVIATIONS

Table I-1: List of Acronyms

AFB	Air Force Base
AQR	Clark County Air Quality Regulations
AST	aboveground storage tank
ATC	Authority to Construct (certificate)
CFR	United States Code of Federal Regulations
CO	carbon monoxide
DAQ	Division of Air Quality
DeCA	Defense Commissary Agency
DES	Clark County Department of Environment and Sustainability
EC	external combustion
EF	emission factor
EPA	United States Environmental Protection Agency
EU	emission unit
HAP	hazardous air pollutant
HP	horsepower
IC	internal combustion
IFR	In-Flight Refueling
kW	kiloWatt
MMBtu	Millions of British thermal units
NAFB	Nellis Air Force Base
NAICS	North American Industry Classification System
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
NSR	New Source Review
O&M	operations & maintenance
ORVR	onboard refueling vapor recovery
$PM_{2.5}$	particulate matter less than 2.5 microns
PM_{10}	particulate matter less than 10 microns
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTE	potential to emit
RACT	Reasonably Available Control Technology
SCR	selective catalytic reduction
SIC	Standard Industrial Classification
SO_2	sulfur dioxide
TSD	Technical Support Document
UST	underground storage tank
VOC	volatile organic compound

II. SOURCE INFORMATION

A. General

Permittee	Nellis Air Force Base
Mailing Address	4430 Grissom Avenue, Suite 101, Nellis AFB, NV 89191-6520
Responsible Official	Todd R. Dyer, Colonel, Commander, 99th Air Base Wing
Source Location	Nellis Air Force Base, Nevada 89191
Hydrographic Areas	212, 215
SIC Code	9711 – National Security
NAICS Code	928110 – National Security

B. Description of Process

NAFB is 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 is a federal facility, and the area that NAFB covers is zoned as Public Facility (P-F). The closest residence to the boundary of NAFB is approximately 30 feet from the western fence line.

All of the activities and emission units at NAFB are classified as SIC 9711, "National Security," and NAICS Code 928110, "National Security." The emission units and activities conducted at NAFB can be classified into the following three efforts to support the Base:

- Civil Engineering, which supports and maintains the infrastructure of the Base.
- Flight and Maintenance Squadron, which maintains and supports combat readiness of the Air Force in support of National Security.
- Training and Support Organizations, which maintains and supports combat readiness of deployable Air Force Civil Engineering Squadrons.

NAFB is subject to 40 CFR Part 60, Subpart I; 40 CFR Part 60, Subpart OOO; 40 CFR Part 60, Subpart IIII; 40 CFR Part 63, Subpart ZZZZ; 40 CFR Part 63, Subpart BBBBBB; and 40 CFR Part 63, Subpart CCCCCC. The engines subject to 40 CFR Part 60, Subpart IIII, satisfy the requirements of 40 CFR Part 63, Subpart ZZZZ, through compliance with 40 CFR Part 60, Subpart IIII.

C. Permitting Action

1. Minor Revisions

The applications submitted by the source for the three revisions proposed to add emission units, remove emission units, and modify existing emission units. Insignificant emission units are also added, removed, and modified in this permitting action. The source also proposed revisions to existing permit conditions. A summary of the requested changes in each application is listed in Table II-C-1.

The applications were submitted prior to July 20, 2021, when AQR Section 12.4 was amended. At that time the proposed changes qualified as AQR 12.4.3.2(b) changes because the proposed modifications increased the source PTE by an amount less than the minor NSR significance levels of AQR 12.4.2.1. Currently, under DES's interpretation of the amended AQR 12.4, an Authority to Construct would be required for "construction, modification, or reconstruction of an affected facility that becomes newly subject to a standard, limitation, or other requirement under 40 CFR Part 60." In accordance with AQR 12.4.3.2(f) the Part 70 Operating Permit will serve as both the Part 70 Operating Permit and the Authority to Construct Permit for the affected and constructed emissions units.

Given that the minor revision applications were submitted prior to the AQR Section 12.4 amendments, all changes proposed by the minor revision applications were accepted as changes that could be issued through a revised operating permit and implemented after 30 days from the date of submittal, consistent with the DES interpretation of the rule at that time. However, as the permit will be issued after DES's latest interpretation of "newly subject to a standard, limitation, or other requirement under 40 CFR Part 60," and as some of the proposed IC engines are subject to a requirement under 40 CFR Part 60, the permitting actions cannot qualify as minor revisions and will be processed under the significant permit revision procedures of AQR 12.5.2.14(c), including the public participation requirement.

Table II-C-1: Summary of Changes in this Permitting Action

Application Date	Application Type	Requested Changes
3/10/2021	ATC *[12.4.3.2(b)]*	Add two new aircraft arrestor engines (EUs: G170 and G171).
5/27/2021	ATC *[12.4.3.2(b)]*	Administrative updates to permitted storage tanks and fuel dispensing units. Modify, administratively update, and remove several insignificant storage tanks and insignificant fuel loading units. Classify three EC units greater than 1 MMBtu/hr that are used for human comfort (EUs: RB466, RB467, and RB471) as insignificant. Reclassify EC units less than 1 MMBtu/hr associated with dormitories (Buildings 715, 745, 767, 775, 777, 781, and 791) or residential housing (Buildings 6441, 6451, 6461, 6471, and 6501) as insignificant units. Remove 5 natural gas boilers. Update the serial number for one paint booth heater (EU: RB482). Add eleven new IC engines (EUs: G172 through G182), remove 11 IC engines, and administratively update several IC engines. Modify the tons per hour production throughput limits for the Aggregate Plant, and the $PM_{2.5}$ emission factors associated with the Aggregate Plant, Asphalt Plant Conveyors, Asphalt Plant hoppers, Asphalt Plant screen, Asphalt Plant storage plie, and the Concrete Plant to reflect DEQ's $PM_{2.5}$ memo. Administratively update the insignificant media blasting unit at Building 252 to add the serial number, 8120, and the date of manufacture as February 2012. Administratively update four cooling towers (EUs: C002, C003, C021, and C012a). Remove the incinerator (EU: H001) from the Part 70 OP as the unit has been removed from the source.

		Administratively update several degreasers, remove four other permitted degreasers (EUs: M010, M070, M032, and M008), and remove the insignificant degreaser at Building 858. Update the conditions as requested in Attachment 4 to this document.
7/14/2021	ATC *[12.4.3.2(b)]*	Add two new aircraft arrestor engines (EUs: G183 and G184).

NAFB requested to have four external combustion units (EUs: RB655 through RB658) removed from the condition requiring burner efficiency tests. NAFB stated that these units are air handlers, for which DAQ does not generally require burner efficiency tests. DAQ has agreed to remove the burner efficiency test requirements for these units.

NAFB requested that an emergency generator (EU: G038) be excluded from being subject to the emission standards of 40 CFR Part 60, Subpart IIII. This is not an issue as this emission unit (EU: G038) has been removed from the source in this action.

NAFB requested that the date of emergency use of emergency engines not be recorded. As this is standard language DAQ includes in all permits with these emission units, the requirement will remain in the permit. This record is required in order for sources to demonstrate compliance with operational limits and that the units are operated within the definition of an emergency engine.
The production limit condition limiting throughput of the aggregate facility has been updated to 300 tons per hour for each process unit.

The incinerator (EU: H001) section has been removed from the permit as it has been removed from the source.

In the revised permit issued on April 30, 2020, the landfill was removed from the permit as the final cover had been placed and the Southern Nevada Health District approved and issued the Nellis AFB Closure Permit for a Class III Landfill on September 29, 2017. The media blasting and fuel cell maintenance emission units were classified as insignificant emission units in the April 30, 2020, permit as well.

2. Reopening for Cause Dated August 9, 2021: Emission Statement

In addition to the changes requested by the source, two additional reopen for cause actions are included. On August 9, 2021, NAFB was notified that federally-required reporting conditions would be added to the permit. These conditions are explained in the paragraphs below.

DAQ has identified this source as possibly emitting 25 tons or more of actual emissions for oxides of nitrogen (NO_X) and/or volatile organic compounds (VOCs) in any calendar year. Clark County was required to implement Section 182(a)(3)(B) of the Clean Air Act (CAA) which requires all ozone nonattainment areas to have in place a program that requires emissions statements from stationary sources of NO_X and/or VOCs.

Section 12.9.1 of the Clark County Air Quality Regulations (AQRs) codifies this requirement for Clark County and states the following:

a. The Responsible Official of each Stationary Source that emits 25 tons or more of NO_X and/or VOC shall submit an Annual Emissions Statement (Statement) to the department for the previous calendar year.

b. Pursuant to CAA Section 182, the Statement must include all actual emissions for all NO_X and VOC emitting activities.
c. The Statement shall be submitted to and received by the department on or before March 31 of each year or other date, upon prior notice by the Control Officer, and shall include a certification that the information contained in the Statement is accurate to the best knowledge of the individual certifying the Statement.

A condition requiring submittal of annual emission statement has been included in the permit.

3. Reopening for Cause Dated September 2, 2021: Fugitive Emissions

This source is an existing major source that has a Title V operating permit. The Division of Air Quality (DAQ) is reopening the permit pursuant to Sections 12.5.2.15 of the Clark County Air Quality Regulations (AQR), which maintain that the Control Officer may reopen and revise a permit "to assure compliance with the applicable requirements." This permit is revised to include recently promulgated fugitive dust requirements for stationary sources.

AQR Sections 92 (Fugitive Dust from Unpaved Parking Lots and Storage Areas) and 94 (Permitting and Dust Control for Construction Activities) were recently revised to address fugitive dust at stationary sources. The revised regulations became effective on August 17, 2021. Subsections 92.1(c) and 94.1.1(a) require that the control measures and stabilization standards therein be made enforceable by the terms and conditions of the stationary source permit.

The source's permit has been revised to include these fugitive dust requirements.

The Status Determination Emissions (SDE) for the mineral processing units, which is an assessment of whether the source is a true or synthetic minor for any of the regulated pollutants, has been updated to DAQ's current methodology of maximum throughput with no additional controls. This removes the use of moisture to control emissions in the SDE calculation.

In addition, the visible emissions check frequency for the mineral procession units has been increased from monthly to daily, or whenever the units are operating, if less than daily. This is standard DES language to assure compliance with opacity requirements.

III. EMISSIONS INFORMATION

A. Source-wide Potential to Emit

1. NAFB is a Part 70 major source of NO_X, a synthetic minor 80 (SM80) of VOC, a synthetic minor source for PM_{10}, CO, and HAP, and a minor source for $PM_{2.5}$ and SO_2 as summarized in Table III-A-1:

Table III-A-1: Source-wide Controlled Emissions (tons per year)

Activity	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAPs
Storage Tanks/Loading Racks/Fuel Dispensing	0	0	0	0	0	15.86	0.59
External Combustion[1]	0.95	0.95	11.94	9.65	0.11	0.66	0.28
Internal Combustion	4.47	4.47	129.85	29.96	1.21	10.02	1.23
Hush House	2.15	1.89	46.41	23.13	2.53	4.60	0.61
Vacant Land	21.22	3.18	0	0	0	0	0

Activity	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAPs
Mineral Processing	9.89	1.49	0.67	1.37	0.11	0.78	0.10
Paint Booths	0.63	0.63	0	0	0	27.55	14.55
Cooling Towers	2.77	2.77	0	0	0	0	0
Wood Working	4.42	4.42	0	0	0	0	0
Degreasers	0	0	0	0	0	3.35	0
Miscellaneous Chemicals	0	0	0	0	0	19.14	2.82
PTE Totals	**46.50**	**19.81**	**188.87**	**64.10**	**3.95**	**81.97**	**20.18**
Exempt and Insignificant Sources	**PM_{10}**	**PM_{10}**	**NO_X**	**CO**	**SO_2**	**VOC**	**HAPs**
Fire Training	0.13	0.13	0.38	0.10	0.00	0.17	0.01
EOD (explosive ordnance disposal)	0.00	0.00	0.04	0.10	0.00	0.02	0.01
Exempt Storage Tanks/Loading Racks/Fuel Dispensing	0.00	0.00	0.00	0.00	0.00	3.69	0.30
Media Blasting	0.12	0.12	0	0	0	0	0
Fuel Cell Maintenance	0	0	0	0	0	0.29	0.02
Subtotal	**0.25**	**0.25**	**0.42**	**0.20**	**0**	**4.17**	**0.34**
PTE Plus Exempt and Insignificant Sources	**46.75**	**20.06**	**189.29**	**64.30**	**3.95**	**86.07**	**20.49**
PSD Thresholds	**250**	**250**	**250**	**250**	**250**	**250**	**10/25[2]**

[1] Includes exempt units, which are included in the natural gas usage cap.
[2] Ten tons for any one HAP or 25 tons for combination of all HAPs.

B. Status Determination Emissions

Status Determination Emissions (SDE) are calculated based on uncontrolled (unless controls are inherent) and unlimited operation, including fugitive emissions. For NAFB, this results in the removal of the natural gas cap and removal of the hour limit for the diesel boilers and continuous duty engines. The operational limits for the aircraft arrestor engines and the hush house units are included as it is not reasonable for these units to operate 8,760 hours per year. As the SDE for PM_{10}, $PM_{2.5}$, NO_x, CO, VOC, and HAP are above major source thresholds, NAFB has the potential to be a major source for these pollutants. As the PTE for all of these pollutants, except for NO_x, is below the PSD thresholds, NAFB is considered to be a synthetic minor of these pollutants. Since the PTE for VOC is greater than 80 tons per year, NAFB is an SM80 for VOC. Since the PTE for NO_x is greater than 100 tons per year, NAFB is a major source of NO_x.

Table III-B-1: Status Determination Emissions (tons per year)

Activity	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAPs
Storage Tanks/Loading Racks/Fuel Dispensing	0	0	0	0	0	15.86	0.59
External Combustion	8.89	8.89	111.26	90.58	0.67	5.89	26.91
Internal Combustion	6.50	6.50	166.05	44.94	1.31	12.60	1.33
Hush House	2.15	1.89	46.41	23.13	2.53	4.60	0.61
Vacant Land	21.22	3.18	0.00	0.00	0.00	0.00	0.00
Mineral Processing[1]	5,759.99	937.03	54.99	145.90	10.88	84.80	7.86
Paint Booths	0.63	0.63	0.00	0.00	0.00	27.55	14.55
Cooling Towers	2.77	2.77	0.00	0.00	0.00	0.00	0.00
Wood Working	4.42	4.42	0.00	0.00	0.00	0.00	0.00
Degreasers	0.00	0.00	0.00	0.00	0.00	3.35	0.00
Miscellaneous Chemicals	0.00	0.00	0.00	0.00	0.00	19.14	2.82
SDE Totals	**5,806.57**	**965.32**	**378.71**	**304.54**	**15.39**	**173.79**	**54.68**
Exempt and Insignificant Sources	**PM_{10}**	**PM_{10}**	**NO_X**	**CO**	**SO_2**	**VOC**	**HAPs**
Fire Training	0.13	0.13	0.38	0.10	0.00	0.17	0.01

Activity	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAPs
EOD (explosive ordnance disposal)	0.00	0.00	0.04	0.10	0.00	0.02	0.01
Exempt Storage Tanks/Loading Racks/Fuel Dispensing	0.00	0.00	0.00	0.00	0.00	3.18	0.25
Media Blasting	0.12	0.12	0.00	0.00	0.00	0.00	0.00
Fuel Cell Maintenance	0.00	0.00	0.00	0.00	0.00	0.73	0.04
Subtotal	**0.25**	**0.25**	**0.42**	**0.20**	**0.00**	**4.10**	**0.31**
SDE Plus Exempt and Insignificant Sources	6,735.28	1,081.67	379.13	304.74	15.39	177.89	54.99
Major Source Thresholds	**100**	**100**	**100**	**100**	**100**	**100**	**10/25[2]**

[1] This does not include the fugitive emissions of storage piles or haul roads.
[2] Ten tons for any one HAP or 25 tons for combination of all HAPs.

IV. EMISSION UNITS AND PTE

A. Storage Tanks/Loading Racks/Fuel Dispensing

In the May 27, 2021, application, NAFB requested to administratively update several units in this category, add ten insignificant diesel fuel dispensing units, add one insignificant diesel fuel dispensing unit, remove five insignificant diesel storage tanks, and remove six insignificant jet fuel storage tanks. The VOC and HAP PTE for six jet fuel storage tanks (EUs: J042 though J045, J040, and J041) have been increased as shown in Table IV-A-2, per updated calculations by the source.

No new permitted emission units are added in this permitting action. The updated list of insignificant fuel storage tanks, loading racks, and fuel dispensers is attached to the Part 70 OP. The changes to these insignificant units is listed in Table IV-A-1.

Table IV-A-1: Updates to Storage Tanks

Building Number	EU	Man.	Model Number	Serial Number	Capacity (gal)	Administrative Update
Permitted Storage Tanks						
1051	J042	Chicago Bridge and Iron	NA	NA	403,200	Administrative PTE Methodology Update to reflect new AP-42 Chapter 7 Storage Tank emissions calculations
1052	J043	Chicago Bridge and Iron	NA	NA	420,000	Administrative PTE Methodology Update to reflect new AP-42 Chapter 7 Storage Tank emissions calculations
1054	J044	Chicago Bridge and Iron	NA	NA	810,000	Update Capacity from 789,000 to 810,000. This capacity change is not a modification as it does not affect permitted emissions because the emissions for this tank is calculated based on a combined throughput going through the smallest of the grouped tanks at Buildings 1051, 1052, 1054, and 1055. Administrative PTE Methodology Update to reflect new AP-42 Chapter 7 Storage Tank emissions calculations emissions calculations

Building Number	EU	Man.	Model Number	Serial Number	Capacity (gal)	Administrative Update
1055	J045	Chicago Bridge and Iron	NA	NA	610,000	Update Capacity from 600,600 to 610,000. This capacity change is not a modification as it does not affect permitted emissions because the emissions for this tank is calculated based on a combined throughput going through the smallest of the grouped tanks at Buildings 1051, 1052, 1054, and 1055. Administrative PTE Methodology Update to reflect new AP-42 Chapter 7 Storage Tank emissions calculations
2336 (Revetments)	J040	Kinder Morgan	API Standard 650	22113396	420,000	Update Building Number from Revetments to 2336 (Revetments) Update Model Number from N/A to API Standard 650 Update Serial Number from N/A to 22113396 Administrative PTE Methodology Update to reflect new AP-42 Chapter 7 Storage Tank emissions calculations
2336 (Revetments)	J041	Kinder Morgan	API Standard 650	22113397	420,000	Update Building Number from Revetments to 2336 (Revetments) Update Model Number from N/A to API Standard 650 Update Serial Number from N/A to 22113397 Administrative PTE Methodology Update to reflect new AP-42 Chapter 7 Storage Tank emissions calculations
10512 (10511-1)	J003	Isom Brothers	RIVS 1230.1	L-825.015	2,000	Update Building Number from 10511 to 10512 (10511-1)
Fuel Hydrant (Bldg. 62121)	J046	Rocky Mountain Fabrication	API Standard 650	C-4026-02	420,000	Update Manufacturer from N/A to Rocky Mountain Fabrication Update Model Number from N/A to API Standard 650 Update Serial Number from N/A to C-4026-02 Administrative PTE Methodology Update to reflect new AP-42 Chapter 7 Storage Tank emissions calculations
Fuel Hydrant (Bldg. 62122)	J047	Rocky Mountain Fabrication	API Standard 650	C-4026-01	420,000	Update Manufacturer from N/A to Rocky Mountain Fabrication Update Model Number from N/A to API Standard 650 Update Serial Number from N/A to C-4026-01 Administrative PTE Methodology Update to reflect new AP-42 Chapter 7 Storage Tank emissions calculations

Building Number	EU	Man.	Model Number	Serial Number	Capacity (gal)	Administrative Update
Permitted Gasoline Dispensing						
1590	J020	Fill-Rite	310 Series	B85680121	35	Update Manufacturer from N/A to Fill-Rite Update Model Number from N/A to 310 Series Update Serial Number from N/A to B85680121
Insignificant Diesel Storage Tanks						
Basewide	Insignificant	Various	Various	Various	Various	Administrative PTE Methodology Update to reflect new AP-42 Chapter 7 Storage Tank emissions calculations
180	Insignificant	Containment Solutions	LDP250P	M732749	250	New Insignificant Diesel Storage Tank
180	Insignificant	Containment Solutions	LDP250P	M732749	250	New Insignificant Diesel Storage Tank
194	Insignificant	Paramount	306AL	17413	1,000	New Insignificant Diesel Storage Tank
875	Insignificant	Containment Solutions	80293	663066	120	New Insignificant Diesel Storage Tank
1054	Insignificant	Containment Solutions	LP500P	600346	500	New Insignificant Diesel Storage Tank
1300	Insignificant	United Alloy Inc	CAT 509-9457	C-96914579	162	New Insignificant Diesel Storage Tank
1300	Insignificant	Western-Global	20TCG	A61281780	528	New Insignificant Diesel Storage Tank
2961	Insignificant	Steel Tank Institute	Fire Guard	43507	300	New Insignificant Diesel Storage Tank
10215	Insignificant	CAT	392-8555	C-54024765	247	New Insignificant Diesel Storage Tank
61697	Insignificant	Containment Solutions	N/A	663067	120	New Insignificant Diesel Storage Tank
200	Insignificant	Hoover Containment Systems	224257	M224257	5,000	Update Serial Number from N/A to M224257 Update Capacity from 5,021 gal to 5,000 gal
805	Insignificant	Containment Solutions	LDP250P	732740	250	Update Model Number from N/A to LDP250P
843	Insignificant	Containment Solutions	LDP500P	900470	500	Update Building Number from 807 to 843 Update Description from B807 AST_500gal_Used Oil to B843 AST_500gal_Used Oil
843	Insignificant	United Alloy Inc.	CPGA02 9X 194	D-649,408	110	Update Building Number from 807 to 843
843	Insignificant	United Alloy Inc.	CPGA02 9X 194	D-649,404	110	Update Building Number from 807 to 843
856	Insignificant	Containment Solutions	LP.2.000.01	193394	2,000	Update Building Number from 905 to 856
1114	Insignificant	United Alloy Inc	CPGA02 9X 194	D-64922	110	Update Serial Number from B-64922 to D-64922
1606	Insignificant	Containment Solutions	LP500P	927073	500	Update Building Number from 1607 to 1606
2064	Insignificant	Pyrco	PY50	5013945	50	Update Manufacturer from Containment Solutions to Pyrco Update Model Number from LP1000 to PY50 Update Serial Number from 92127 to 5013945
2064	Insignificant	Containment Solutions	LP1000	92127	1,000	Update Building Number from 2069 to 2064 Update Serial Number from 92126 to 92127

Building Number	EU	Man.	Model Number	Serial Number	Capacity (gal)	Administrative Update
2336 (Revetments)	Insignificant	United Alloy Inc.	CAT 463-2726	B-52795981	693	Update Building Number from Revetments to 2336 (Revetments) Update Description from Belly Tank w/ Revetments Generator to Belly Tank w/G163
10512 (10511-1)	Insignificant	Isom Brothers	RIVS 1230 2	L-825.016	6,000	Update Building number from 10511 to 10512 (10511-1)
217	Insignificant	Global Power Components	SB2S-300	9763-1202	300	Remove
431 (BX)	Insignificant	Containment Solutions	LP250P	N/A	250	Remove
843	Insignificant	United Power Production	CPG015 914 64	641279	145	Remove
Aggregate Plant	Insignificant	Containment Solutions	LP.10.00 0.1 1	193500	10,000	Remove
Insignificant Jet Fuel Storage Tanks						
Basewide	Insignificant	Various	Various	Various	Various	Administrative PTE Methodology Update to reflect new AP-42 Chapter 7 Storage Tank emissions calculations
1051/1052	Insignificant	Containment Solutions	LP500P	600347	500	Update Building Number from 1050 to 1051/1052
2336 (Revetments)	Insignificant	Highland Tank	NA	A61611368	4,000	Update Building Number from Revetments to 2336 (Revetments)
61633/1	Insignificant	Celtech Corp	NA	20-9500-1	2,500	Update Serial Number from N/A to 20- 9500-1
62120 West Side Hydrant	Insignificant	NA	NA	U-187041	4,000	Update Serial Number from N/A to U- 187041
Kinder Morgan Tanks	Insignificant	Secondary Containment	0058-23-01-S0915	C262027	500	Update Manufacturer from N/A to Secondary Containment Update Model Number from N/A to 0058-23-01-S0915 Update Serial Number from N/A to C262027
2195	Insignificant	Paramount Tank Inc.	N/A	17413	1,000	Remove
Insignificant Diesel Fuel Dispensing						
856	Insignificant	Gasboy	Atlas	N/A	N/A	Update Building Number from 905 to 856
235	Insignificant (J016)	Bennett	C27S-GECATPN N-USA	12E632746	N/A	Update Manufacturer from N/A to Bennett Update Model Number from N/A to C27S-GECATPNN-USA Update Serial Number from N/A to 12E632746

Table IV-A-2: PTE Change of Jet Fuel Storage Tank (tons per year)

EU	Capacity (gal)	Throughput (gal/yr)	Previous PTE		Updated PTE	
			VOC	HAP	VOC	HAP
J042	403,200	184,000,000	0.52	0.03	0.53	0.05
J043	420,000					
J044	789,000					
J045	600,600					
J040	420,000	180,000,000	0.47	0.03	0.48	0.05
J041	420,000					

EU	Capacity (gal)	Throughput (gal/yr)	Previous PTE		Updated PTE	
			VOC	HAP	VOC	HAP
J046	420,000	43,680,000	0.16	0.01	0.16	0.02
J047	420,000	43,680,000	0.16	0.01	0.16	0.02

Table IV-A-3: Revised PTE for Storage Tanks/Loading Racks/Fuel Dispensing (tons per year)

	VOC	HAP
Previous Storage Tanks/Loading Racks/Fuel Dispensing PTE (June 2021 permit)	15.84	0.53
New Tanks/Loading Racks/Fuel Dispensing PTE	15.86	0.59
PTE Increase	0.02	0.06

The PTE increase is a result of the change in calculation methodology. Therefore, a RACT analysis is not required.

There is no change to the applicable federal requirements of the units in this section. The units are subject to 40 CFR Part 63, Subparts A, BBBBBB, and CCCCCC.

B. External Combustion

In the May 27, 2021, application, NAFB requested to update the permit with the changes listed in Table IV-B-1.

Table IV-B-1: Updates to External Combustion Emission Units

Building Number	EU	Rating (MMBtu/hr)	Man.	Model Number	Serial Number	Administrative Update
868	RB482	3.025	Rupp Industries	RAM20	S85181A	Update the serial number from 685181A to S85181A
285	RB049	2.00	Parker	T1995L	52994	Remove
552	RB439	1.50	Patterson Kelly	Mach C-1050	H601-13-8974	Remove
552	RB144[1]	1.25	Patterson Kelly	N-1500-2	CY35-07-31470	Remove
552	RB440	1.05	Patterson Kelly	Mach C-1050	W838-12-8764	Remove
10202	RB150	1.26	Raypak	H9-1262B	1005309323	Remove
767 (Dorm)	RB466	1.70	Lochinvar	PFN1701	L12H00245112	Reclassify as insignificant
767 (Dorm)	RB467	1.70	Lochinvar	PFN1701	L12H00245113	Reclassify as insignificant
777 (Dorm)	RB471	1.65	RBI	LB1650NOR2A2CA	70435795	Reclassify as insignificant

[1]The May 27, 2021, application listed this unit as EU RB141, with the serial number for EU RB144.

The source-wide emissions are unchanged in this permitting action as the natural gas boilers are subject to a fuel usage limit. The PTE for this emission unit category is outlined in Table IV-B-2.

Table IV-B-2: Source–wide Emissions from External Combustion Units[1,2] (tons/year)

Description	Fuel Usage Limits	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAP
Natural Gas-fired Boilers	225 MMscf/yr[2]	0.86	0.86	11.25	9.45	0.07	0.62	0.21
RB112	1,020 hr diesel each, Unlimited natural gas	0.03	0.03	0.18	0.04	0.01	0.01	0.02
RB113		0.03	0.03	0.18	0.04	0.01	0.01	0.02
RB113		0.03	0.03	0.18	0.04	0.01	0.01	0.02
RB630	Unlimited Propane	0.01	0.01	0.16	0.09	0.01	0.01	0.01
Total		**0.95**	**0.95**	**11.94**	**9.65**	**0.11**	**0.66**	**0.28**

[1]Conversion Factor – 1,020 Btu/scf (AP-42 Chapter 1.4).
[2] Voluntary cap proposed by source for all natural gas-fired boilers. Annual limits are based on a consecutive twelve-month total.

The boilers are not subject to 40 CFR 63, Subpart DDDDD, as NAFB is not a major source of HAP.

The existing control, monitoring, and recordkeeping requirements in the OP remain. NAFB will be required to limit the total MMscf/yr of external combustion emission units to 225 MMscf/yr. A log shall be maintained and updated at least monthly with a list of existing emission units in this category.

C. Internal Combustion

In the March 10, 2021, application, NAFB requested the addition of two aircraft arrestor engines (EUs: G170 and G171). Two more aircraft arrestor engines (EUs: G183 and G184) were requested in the July 14, 2021, application.

In the May 27, 2021, application, NAFB requested the removal of 11 engines (EUs: G002, G005 through G008, G011, G012, G017, G021, G038, and G126), the addition of 11 engines (EUs: G172 through G182), and the administrative updates of the emission units shown in Table IV-C-1.

Table IV-C-1: Updates to Internal Combustion Emission Units

EU	Building	Rating	Make	Model No.	Serial No.	DOM	Administrative Update
March 10, 2021, Application							
G170	S5 (1A)	64 hp	Duetz	D2011L04 I	12439341	7/2019	New
G171	S6 (1B)	64 hp	Duetz	D2011L04 I	12439331	7/2019	New
May 27, 2021, Application							
G172	6	200 kW	Cummins	C200D6D	TBD	TBD	New
		324 hp		QSB7-G5	TBD		
G173	200	450 kW	Cummins	DFEJ	TBD	TBD	New
		755 hp		QSX15-G9	TBD		
G174	200	450 kW	Cummins	DFEJ	TBD	TBD	New
		755 hp		QSX15-G9	TBD		
G175	200	450 kW	Cummins	DFEJ	TBD	TBD	New
		755 hp		QSX15-G9	TBD		
G176	201	1,250 kW	Cummins	DQGAA	TBD	TBD	New
		2,220 hp		GKS50-G4NR2	TBD		
G177	216	250 kW	Cummins	DQDAA	TBD	TBD	New
		464 hp		QSL9-G7	TBD		

EU	Building	Rating	Make	Model No.	Serial No.	DOM	Administrative Update
G178	620	200 kW 324 hp	Cummins	C200D6D QSB7-G5	TBD TBD	TBD	New
G179	696	50 kW 99 hp	Cummins	C50 D6 4BTAA3.3-G7	TBD TBD	TBD	New
G180	1300	110 kW 173.1 hp	Caterpillar	QX125 C4.4	TBD TBD	TBD	New
G181	2060	15 kW 24.3 hp	Cummins Kubota	C15 D6 D1703M	TBD TBD	TBD	New
G182	2064	125 kW 208 hp	Cummins	C125D6C QSB5-G6	TBD TBD	TBD	New
G002	006	317 hp	Cummins	6CTAA8.3 G3	46318225	6/2003	Removed
G005	200	535 hp	Cummins	NTA-855-G3	30355347	10/1995	Removed
G006	200	535 hp	Cummins	NTA-855-G3	30357073	4/1996	Removed
G007	200	535 hp	Cummins	NTA-855-G3	30370204	8/2003	Removed
G008	201	1750 hp	Detroit Diesel	91237416	7A50452	6/1995	Removed
G011	216	380 hp	Cummins	LTA-10G1	34873140	8/1997	Removed
G012	217	535 hp	Cummins	NTA855G3	30369378	10/2002	Removed
G017	431	91 hp	Detroit Diesel	50348012	7307414 3D-300584	9/1995	Removed
G021	620	317 hp	Cummins	6CTAA8.3 G3	46421200	2/2004	Removed
G126	2060	27.7 hp	Kubota	V2203-EBG	XKBXK02.2 FCC	1/1999	Removed
G038	2064	207	Cummins	6BTAA5.9-G1	46623474	6/2006	Removed
G010	217	1350 hp	Cummins	QST30-G3	37205939	3/2003	Update building number from 215 to 217.
G167	805	25 kW 69 hp	Cummins	C25D6 4BT3.3G5	K190689184 72046727	2/2019	Update emergency generator model number from GD03C-1951465 to C25D6.
G086	843	27	Kubota	D1703-M-BG-ET01	BG0100	1/2011	Update building number from 807 to 843.
G154	875	145	Cummins	QSB5-G3 NR3	74012684	6/2016	Update building number from 2961 to 875.
G165	875	250 kW 399	Cummins	DQDAA-1329077 QSL9-G3NR3	J90036863 73031122	2009	Update building number from 807 to 875.
G163	2336 (Revetments)	350 kW 531 hp	Caterpillar	350 C13	CAT00C13VT3200118 PW300263	2017	Update building number from Revetments to 2336 (Revetments).
G166	2961	125 kW 325 hp	Cummins	C125 D6D QSB7-GS NR3	G200791484 74669187	7/2020	Update emergency generator model number from C150D6D to C125 D6D. Update emergency generator serial number from TBD to G200791484. Update emergency generator KW from 150 to 125. Update engine serial number from TBD to 74669187. Update DOM from June 2020 to July 2020.

EU	Building	Rating	Make	Model No.	Serial No.	DOM	Administrative Update
A033	10567	250 kW	Olympian	D2000P4	OLY00000KNNS00551	2002	Update the generator serial number from OLY00000KNN500551 to OLY00000KNNS00551.
		325 bhp	International	GCD325	WS4486N1358315		
G168	10215	100 kW	Caterpillar	C4.4	A2502654	Post 2006	Update building number from Area II to Building 10215. Update generator serial number from TBD to A2502654. Update engine serial number from TBD to E5G01298
		111.3 hp		C4.4	E5G01298		
July 14, 2021, Application							
G183	N5 (4A)	64 hp	Duetz	D2011L04I	12616875	TBD	New
G184	N6 (4B)	64 hp	Duetz	D2011L04I	12603070	TBD	New

The new aircraft arrestor engines (EUs: G170, G172, G183, and G184) are limited to 225 hour per year of operation, as requested by the source and consistent with existing aircraft arrestor engines. The new emergency generators (EUs: G172 through G182) are limited to 100 hours per year for testing and maintenance, per 40 CFR 60 Subpart IIII, and the PTE is based off of 500 hours per year per unit per EPA guidance.

Table IV-C-3: PTE for New Internal Combustion Emission Unit (tons per year)

EU	PM_{10}	$PM_{2.5}$	NOx	CO	SO_2	VOC	HAP
G170	0.01	0.01	0.05	0.02	0.01	0.01	0.01
G171	0.01	0.01	0.05	0.02	0.01	0.01	0.01
G172	0.01	0.01	0.83	0.03	0.01	0.01	0.01
G173	0.01	0.01	1.66	0.15	0.01	0.05	0.01
G174	0.01	0.01	1.66	0.15	0.01	0.05	0.01
G175	0.01	0.01	1.66	0.15	0.01	0.05	0.01
G176	0.02	0.02	5.9	0.49	0.01	0.11	0.01
G177	0.01	0.01	0.87	0.2	0.01	0.01	0.01
G178	0.01	0.01	0.83	0.03	0.01	0.01	0.01
G179	0.05	0.05	0.77	0.17	0.01	0.06	0.01
G180	0.01	0.01	0.03	0.35	0.01	0.01	0.01
G181	0.01	0.01	0.05	0.01	0.01	0.01	0.01
G182	0.01	0.01	0.57	0.04	0.01	0.01	0.01
G183	0.01	0.01	0.05	0.02	0.01	0.01	0.01
G184	0.01	0.01	0.05	0.02	0.01	0.01	0.01
Totals	**0.20**	**0.20**	**15.03**	**1.85**	**0.15**	**0.42**	**0.15**

Table IV-C-4: Revised PTE for Internal Combustion Emission Units (tons per year)[1]

	PM_{10}	$PM_{2.5}$	NOx	CO	SO_2	THC[2] (VOC)	HAP
Previous Internal Combustion PTE (June 2021 Part 70 OP)	5.10	5.10	141.99	34.08	1.17	10.62	1.19
PTE of New Internal Combustion Units	0.20	0.20	15.03	1.85	0.15	0.42	0.15
Average Actual Emission of Removed Internal Combustion Units	0.11	0.11	1.58	0.40	0.10	0.12	0.10

PTE of Removed Internal Combustion Units	0.83	0.83	27.17	5.97	0.11	1.02	0.11
Emissions Increase of this Action	0.09	0.09	13.45	1.45	0.05	0.30	0.05
New Internal Combustion PTE	4.47	4.47	129.85	29.96	1.21	10.02	1.23

[1]PTE differs slightly as a result of rounding.
[2]THC is used as a surrogate for VOC.

As the PTE of the new units are below all significance thresholds, a controls analysis is not required and the actual emissions of the removed and modified units is not necessary to use for netting purposes. All engines will be operated and maintained in accordance with the Air Force Technical Orders and Air Force Instructions as well as manufacturer operations and maintenance (O&M) manuals for emissions-related components.

The existing control, monitoring, and recordkeeping requirements in the Part 70 OP remain.

There is no change to the applicable federal requirements of the units in this section. The units are subject to 40 CFR Part 60, Subparts IIII and JJJJ, and 40 CFR Part 63, Subpart ZZZZ.

Per DAQ policy, the emission standards for the engines subject to 40 CFR Part 60, Subpart IIII, are removed from the permit as they are based on a cycle that cannot be replicated in the field as part of a performance. Manufacturers' guarantees are used instead of performance testing to verify compliance.

The new diesel engines (EUs: G172 through G182) and the existing diesel engines (EUs: G035a, G047, G064, G067, G068, G069, G073, G077, G080, G081, G084 through G086, G090 through G092, G094, G097, G102, G121, G124, G129, G130 through G132, G136, G137, G139, G142, G149, G154, G157, G160 through G163, and A076) shall comply with the emission standards set forth in 40 CFR 89.112 and 40 CFR 89.113 for new nonroad CI engines for the same model year and maximum engine power (40 CFR 60.4204 and 40 CFR 60.4205). The emission standards are provided in Table IV-C-5:

Table IV-C-5: Emission Standards for Generators Subject to 40 CFR Part 60, Subpart IIII

Power (kW)	NMHC+NO_x (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)
37 to 75 kW	4.7	5.0	0.40
75 to < 130 kW	4.0	5.0	0.30
130 to < 225	4.0	3.5	0.20
225 to < 450	4.0	3.5	0.20
450 to 560	4.0	3.5	0.20
> 560 kW	6.4	3.5	0.20

The diesel engines at this source are subject to 40 CFR Part 60, Subpart IIII, and 40 CFR Part 63, Subpart ZZZZ, so must meet the fuel requirements referenced therein from 40 CFR Part 80.510(b) (in Subpart I). The source must purchase diesel fuel that meets the per-gallon standard of 15 ppm maximum sulfur content, a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. Since all refiners and importers of nonroad diesel fuel are also subject to these federal standards pursuant to 40 CFR Part 80.510, it is reasonable to assume the engine operators have little if any opportunity to acquire fuel that violates these standards. Therefore, this permit does not require the permittee to monitor or keep records of the sulfur content, cetane index, or aromatic content of the diesel fuel used in the engines and the corresponding conditions have been removed from the Part 70 OP.

The new aircraft arrestor engines (EUs: G170, G171, G183, and G184) have a national security exemption under 40 CFR 1068.225(b).

D. Mineral Processing

NAFB has not requested any new emission units in this category.

In the May, 27, 2021, application NAFB requested that the hourly throughput of the aggregate plant be increased from 200 tons per hour to 300 tons per hour and that the $PM_{2.5}$ emission factors be updated to reflect DEQ's December 13, 2020, Memorandum on Particulate Matter Emissions Factors for Stationary Sources: Development and Data Collection. The $PM_{2.5}$ emission factors were updated in the previous permitting action.

The increase in the hourly rate increases the source's SDE, but does not affect the annual PTE of the source. The SDE for this category is updated per DAQ's policy to exclude moisture control from the SDE calculation. This does not change the source's status for any pollutant.

Table IV-D-1: Revised PTE for Mineral Processing (PM_{10}, tons per year)

	PM_{10}	$PM_{2.5}$	NOx	CO	SO_2	VOC	HAP
Previous Mineral Processing SDE (April 2020 permit)[1]	267.60	46.37	0.00	0.00	0.00	0.00	0.00
Current Mineral Processing SDE	6,735.28	1,081.67	379.13	304.74	15.39	177.89	54.99

[1]The previous permit incorrectly omitted the NO_x, CO, SO_2, VOC, and HAP SDE of the asphalt plant. With the inclusion of these emissions, the only change is the designation of the source as a synthetic minor source of VOC.

E. Cooling Towers

In the application submitted on May 27, 2021, NAFB requested the administrative updated in Table IV-E-1.

Table IV-E-1: Updates to Cooling Towers

EU	Building Number	Man.	Model Number	Serial Number	Administrative Update
C002	200	Baltimore Aircoil Company	PT2-0709A3L1	U190133601-02-01	Update Model Number from PT2-0709A3LI to PT2-0709A3L1.
C003	200	Baltimore Aircoil Company	PT2-0709A3L1	U190133601-01-01	Update Model Number from PT2-0709A3LI to PT2-0709A3L1.
C021	340	Baltimore Aircoil Company	XES3E-1020-06L	U136598901-01	Update Model Number from XES3E-1020-061-01 to XES3E-1020-06L-01.
C012a	61697	Evapco	USS-14-84	16-99754	Update Building Number from 767 to 61697.

As there are no changes in the emission units in this section, there is no change in PTE.

The existing control, monitoring, and recordkeeping requirements in the Part 70 OP remain.

40 CFR Part 63, Subpart Q, does not apply because NAFB does not use cooling towers that are operated with chromium-based water treatment chemicals.

F. Degreasers

In the May 27, 2021, application NAFB requested the administrative updates and removal of the degreasers listed in Table IV-F-1.

Table IV-F-1: Degreaser Updates

EU	Building	Make	Model	Serial Number	Capacity (gal)	Administrative Update
M026	442	Clarus	PCS-25	2811	27.5	Update Building from 450 to 442
M011	858	Clarus	PCS-15	6850002745421	27.5	Update Serial Number from N/A to 6850002745421
M038[1]	10569	ChemFree	28-1	2101511	25	Update Building from 10304 to 10569
M010	270	Clarus	PCS-25		27.5	Remove
M070	270	Better Engineering	4940PM-70-P	041HMAT08071	25	Remove
M032	442	Better Engineering	F5000-LXPZX-SS	20467	200	Remove
M008	1063	Clarus	PCS-25	001527	27.5	Remove
M066	858	Cuda Aqueous Washer	H20-4860	10434440-100101	160	Remove

[1]This unit was listed as M037 in the application. M037 is not at Building 10304. The serial number in the application is the serial number of M038, which was listed as at Building 10569.

Table IV-F-3: Revised PTE for Degreasers (VOC, tons per year)

Previous Degreaser PTE (June 2021 permit)	3.75
PTE of Removed Degreasers	0.41
New Degreaser PTE	3.34[1]

[1]PTE differs slightly as a result of rounding.

No federal regulations apply to the emission units in this section.

G. Monitoring

The new equipment added in this revision did not trigger new monitoring requirements, as similar units are present in the permit with sufficient monitoring requirements. The new units were added to the existing language.

NAFB is required to monitor production throughputs, product usages, fuel usages, pressure drops across filters, opacity, and hours of operation as applicable to each emission unit section in the Part 70 OP.

H. Testing

No new performance testing requirements are added in this permitting action. New emission units did not trigger additional performance testing.

V. REGULATORY REVIEW

The requirements of 40 CFR Part 60, Subpart IIII, and 43 CFR Part 63, Subpart ZZZZ, are applicable to the new emergency generators added in this permitting action. These units will meet the requirements of Subpart ZZZZ by meeting the requirements of Subpart IIII.

VI. CONTROL TECHNOLOGY

The PTE for the new emission units do not exceed the minor NSR significant level of AQR 12.4.2.1. The new emission units are not subject to RACT.

A summary of the PTE changes is listed below in Table VI-1. This table includes new and revised emission unit PTE changes.

Table VI-1: Change in PTE per Emission Unit Type (tons per year)

Emission Unit Type	PM_{10}	$PM_{2.5}$	NOx	CO	SO_2	VOC	HAP
Storage Tanks/Loading Racks/Fuel Dispensing	0.00	0.00	0.00	0.00	0.00	0.02	0.06
External Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Internal Combustion	-0.63	-0.63	-12.14	-4.12	0.04	-0.60	0.04
Hush House	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mineral Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cooling Towers	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Woodworking	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Degreasers	0.00	0.00	0.00	0.00	0.00	-0.41	0.00
Net Increase	**-0.63**	**-0.63**	**-12.14**	**-4.12**	**0.04**	**-0.99**	**0.10**
Minor NSR Significant Levels	7.5	5	20	50	20	20	N/A

Table VI-1 demonstrate that there is no net emission increase from the proposed minor revisions.

VII. INCREMENT

Nellis Air Force Base is a major source in Hydrographic Area (HA) 212 (Las Vegas Valley) and HA 215 (Black Mountains Area). Minor source baseline dates for NO_x (October 21, 1988) and SO_2 (June 29, 1979) have been triggered in HA 212. Minor source baseline dates for NO_X (July 19, 1989) and PM_{10} (June 18, 1983) have been triggered in HA 215.

DAQ modeled the source using AERMOD to track the increment consumption. Stack data submitted by the applicant were supplemented with information available for similar emission units. Five years (2011 to 2015) of meteorological data from the McCarran Station were used in the model. U.S. Geological Survey National Elevation Dataset terrain data were used to calculate elevations. Table VII-1 shows the location of the maximum impact and the potential PSD increment consumed by the source at that location. The impacts are below the PSD increment limits.

Table VII-1: PSD Increment Consumption

Pollutant	Averaging Period	PSD Increment Consumption by the Source (µg/m^3)	Location of Maximum Impact	
			UTM X (m)	UTM Y (m)
SO_2	3-hour	10.84[1]	676985	4013916
SO_2	24-hour	6.19[1]	676985	4013916
SO_2	Annual	2.62	676985	4013916
NO_X	Annual	12.44	676985	4013916
PM_{10}	24-hour	19.66[1]	676985	4013916
PM_{10}	Annual	8.45	676985	4013916

[1] Second High Concentration

VIII. PUBLIC NOTICE

As this permit is being issued under the significant permit procedure of AQR 12.5.2.14(c), public participation is required.

IX. ATTACHMENTS

Attachment 1 – List of Boilers

List of Natural Gas Boilers, Heaters, and Furnaces

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
2	Boiler	Camus	BFNH660-E00	10501418	0.660
2	Water Heater	Bradford	75T80B3N	AF4870941	0.076
11	Boiler	Patterson Kelly	N-1500-2	CY30-07-31339	1.500
11	Boiler	Patterson Kelly	N-1500-2	CY30-07-31338	1.500
16	Heat/Cool	Carrier	58MXA100-20	285A11462	0.100
16	Heat/Cool	Carrier	58MXA100-20	2895A11484	0.100
20	Water Heater	Bradford White	M2XR75S6BN	GG13668338	0.076
20	Boiler	RBI	DB900	111057500	0.900
20	Boiler	RBI	FHN500-SV	7988497	0.500
42	Furnace	Carrier	58STA070-12	4610A15249	0.066
42	Furnace	BDP Co	383KAV048091	4394A17733	0.088
42	Furnace	BDP Co	383KAV060111	4394A12071	0.11
42	Water Heater	Bradford White	MII5036FBN	JE16695233	0.040
42	Water Heater	Bradford White	MI5036FBN	JE16695288	0.040
45	Heat/Cool	Carrier	48ESNA4809030--	4314C29481	0.09
45	Heat/Cool	Carrier	48GS-036060311	0404G31144	0.060
45	Heat/Cool	Carrier	48TCDA06A2A3A0A0A0	4109G10180	0.072
45	Heat/Cool	Carrier	48TCDA06A2A3A0A0A0	4109G10179	0.072
47	Heat/Cool	Carrier	48A4D027CM521KK	0416U46916	0.350
60	Water Heater	Lochinvar	PRN075	DF9347101	0.070
60	Furnace	Carrier	58MVB120-F-11120	3607A04743	0.120
60	Furnace	Carrier	58MVB120-F-11120	3607A04731	0.120
60	Furnace	Carrier	58MVB120-F-11120	3607A04738	0.120

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
60	Furnace	Carrier	CNPVP6024ACAABAA	3707X39682	0.120
66	Heat/Cool	Carrier	48TCDD24ABA5A0P0A0	2913P17614	0.22
66	Water Heater	Bradford White	MI40T6EN12	ZE3215C84	0.040
94	Water Heater	State Select	GS640YBRTG300	1508J000219	0.040
94	Boiler	RBI	SW0250	120437383	0.250
98	Boiler	Thermopak	GWA-215	9NI	0.215
98	Water Heater	Bradford White	MI40T6FBN7	CC7540553	0.040
100	Boiler	LAARS	PNCH0300NACC1CXN	C08198763	0.299
100	Water Heater	Bradford White	MI40T6FBN	LC34228152	0.040
102	Water Heater	Bradford White	M2XR75S6BN	HA14400866	0.076
102	Boiler	Parker	T300	48351	0.160
118	Boiler	Ravpak	H3-0242	0209198977	0.240
119	Boiler	Lochinvar	FTX600N	3115101858823	0.600
119	Boiler	Lochinvar	FTX600N	3115101858821	0.600
119	Water Heater	AO Smith	BTX80110	1534M002534	0.076
120	Boiler	Laars	NTH285NXX3	G16378795	0.285
120	Boiler	Laars	NTH285NXX3	G16378792	0.285
120	Water Heater	AO Smith	BTH199200	1632M001280	0.1 99
122	Heat/Cool	Carrier	48GX-048090301--	2499011591	0.090
124	Water Heater	Bradford White	RG240T6N	NA37126468	0.040
124	Heat/Cool	Carrier	48A40050-QM531WW	4917U46495	0.400
180	Water Heater	AO Smith	BTH150100	1242M000109	0.150
180	Boiler	Buderus	GB162-100	3290 304 000025 7746900215	0.333
180	Boiler	Buderus	GB162-100	3290 304 000026 7746900215	0.333
180	Boiler	Buderus	GB162-100	3290 304 000027 7746900215	0.333
180	Boiler	Buderus	GB162-100	3290 304 000028 7746900215	0.333
180	Heat/Cool	Trane	AUC1B080A9421AE	13163TM12G	0.080
180	Heat/Cool	Trane	AUC1D100A9601AE	13145NKG2G	0.100
180	Heat/Cool	Trane	AUC1D100A9601AE	13145NKR2G	0.100
180	Heat/Cool	Trane	TUC1D120A9601AE	12255KHW7G	0.120
180	Pressure Washer	Landa	VNG8-30024C	11095800-100119	0.752
190	Boiler	AERCO	BMK2000	G-15-1110	2.000
190	Boiler	LAARS	RHCH2400NACF2EXX	A08197950	2.400
190	Water Heater	Power VT	800 N125A-PVL	0808125225	0.565
199	Boiler	Patterson-Kelley	C-2500	H906-11-6409	2.500
199	Boiler	Patterson-Kelley	C-2500	H906-11-6405	2.500
199	Humidifier	Modine	HFG150TMRHN40A1	1010601-1051	0.150
199	Humidifier	Modine	HFG150TMRHN40A1	1010601-1050	0.150
199	Humidifier	Modine	HFG150TMRHN40A1	1010601-1052	0.150
200	Boiler	Patterson Kelley	Mach C-900	W746-12-8903	0.900
200	Boiler	Patterson Kelley	Mach C-900	W746-12-8909	0.900
201	Boiler	Rite	55WG0	8218612	0.400

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
201	Heat/Cool	Carrier	48TFD008---511--	5103G20515	0.125
201	Water Heater	Bradford White	RG240T6N	PA38890338	0.040
201	Boiler	Rite	105W	29456	1.050
202	Boiler	Lattner	HE	NB52292	0.970
202	Boiler	Raypak	H3-0502	0306209003	0.500
202	Boi le r	Raypak	H3-0502	0306209004	0.500
202	Water Heater	Lochinvar	CGN150032100	1332M000350	0.150
204	Heat/Cool	AAON	RN-025-8-0-EA09-349	201004 - ANGR09712	0.270
209	Ceiling Heater	Modine	NA	NA	0.4
209	Ceiling Heater	Modine	NA	NA	0.400
209	Ceiling Heater	Modine	NA	NA	0.400
209	Heat/Cool	Tempstar	PGAA36C1K3	L952591109	0.060
214	Heat/Cool	Carrier	48TCDD24CGD5A0A0A0	2012U20726	0.220
214	Heat/Cool	Carrier	48HJD012-571--	2504G11585	0.180
215	Heat/Cool	Carrier	48HJD014-561	0507G11861	0.224
215	Heat/Cool	Carrier	48HJD014-561	4505G40911	0.224
215	Heat/Cool	Trane	YSC120A3ELA16	330101271L	0.150
215	Heat/Cool	Carrier	48TMD016---511YA	2208U14760	0.275
217	Heat/Cool	Trane	YHC036E3ELA1M	151712350L	0.06
217	Heat/Cool	Trane	YSH I 50F3RLA09	154810478D	0.15
220	Ceiling Heater	NA	NA	NA	0.125
220	Ceiling Heater	Modine	Hot Dawg	NA	0.125
220	Ceiling Heater	Modine	Hot Dawg	NA	0.125
220	Ceiling Heater	Modine	Hot Dawg	NA	0.125
220	Ceiling Heater	Modine	Hot Dawg	NA	0.125
220	Heat/Cool	York	ZF048N10N1AAA1A	N1H0279002	0.125
220	Water Heater	Lochinvar	SNR150-100	B11C20025053	0.150
220	Heat/Cool	York	ZF102N15N2FZZ50001A	N1D1977192	0.180
220	Heat/Cool	York	ZF102N15N2FZZ50001A	N1D1977193	0.180
220	Ceiling Heater	NA	NA	NA	0.125
220	Ceiling Heater	NA	NA	NA	0.125
220	Ceiling Heater	NA	NA	NA	0.125
220	Ceiling Heater	NA	NA	NA	0.125
220	Ceiling Heater	NA	NA	NA	0.125
220	Ceiling Heater	NA	NA	NA	0.125
220	Ceiling Heater	NA	NA	NA	0.125
220	Ceiling Heater	Modine	HotDawg	NA	0.125
220	Ceiling Heater	Modine	HotDawg	NA	0.125
220	Ceiling Heater	Modine	Hot Dawg	NA	0.125
220	Ceiling Heater	Modine	HotDawg	NA	0.125
222	Ceiling Heater	NA	NA	NA	0.12
222	Water Heater	Bradford White	RG240T6N	ME36160658	0.040
222	Boiler	RBI	LBO400NOE2AOCA	90436551	0.399
222	Ceiling Heater	NA	NA	NA	0.12 5
222	Ceiling Heater	NA	NA	NA	0.125
222	Ceiling Heater	NA	NA	NA	0.12 5
224	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
224	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
224	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
224	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
224	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
224	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
224	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
224	Ceiling Heater	NA	NA	NA	0.12
224	Water Heater	State Select	GS640YBRTG300	1508J000262	0.040
224	Boiler	RBI	LB0400NOE2A2CA	100436593	0.399
226	Heat/Cool	Carrier	48LCD017A2M5A0A0A0	4513P21311	0.220
226	Heat/Cool	Carrier	48LCD007A2A6A0A0A0	4914P94012	0.072
226	Ceiling Heater	NA	NA	NA	0.12
226	Water Heater	Vanguard	1PLV7	VGLN030750845	0.036
226	Ceiling Heater	NA	NA	NA	0.125
226	Ceiling Heater	NA	NA	NA	0.125
226	Ceiling Heater	NA	NA	NA	0.125
228	Heat/Cool	Carrier	48TJD024-581YA	1603F27452	0.275
230	Heat/Cool	Carrier	CNPHP4821ACAABAA	1510X18401	0.115
230	Water Heater	Bradford White	75T80B3N	JD16503097	0.076
230	Heat/Cool	Carrier	48TCEA06A2A3A0A0A0	0211020356	0.115
230	Heat/Cool	Carrier	48TCEA06A2A3A0A0A0	0211020357	0.115
232	Water Heater	Lochinvar	SNR150-100	A11C200024315	0.150
232	Boiler	RBI	FB 1750	120437366	1.750
232	Heat/Cool	York	D2NY060N09046NXA	N1F1140199	0.108
232	Heat/Cool	York	D2NX048N09046NXA	N1F1140197	0.108
232	Heat/Cool	York	D2NY060N09046NXA	N1F1140198	0.108
232	Ceiling Heater	NA	NA	NA	0.125
232	Ceiling Heater	NA	NA	NA	0.125
232	Ceiling Heater	NA	NA	NA	0.125
232	Ceiling Heater	NA	NA	NA	0.125
233	Boiler	RBI	LB0225	120437419	0.225
237	Water Heater	Bradford White	MI40T5LN8	HLR127241	0.034
237	Ceiling Heater	NA	NA	NA	0.125
237	Ceiling Heater	NA	NA	NA	0.125
237	Ceiling Heater	NA	NA	NA	0.125
237	Ceiling Heater	NA	NA	NA	0.125
237	Ceiling Heater	NA	NA	NA	0.125
237	Ceiling Heater	NA	NA	NA	0.125
237	Ceiling Heater	NA	NA	NA	0.125
237	Ceiling Heater	NA	NA	NA	0.125
239	Water Heater	Bradford White	RG250T6N	PD39301563	0.040
241	Heat/Cool	Carrier	48HCDD24ABA5A0B0A0	2215P20693	0.220
244	Boiler	Lochinvar	KBN2 1 I - M7	D13HI 1238908	0.21
244	Tankless Water Heater	Rheem	RTG-95DVN	RHLN1110J03970	0.200
244	Tankless Water Heater	Rheem	RTG-95DVN	RHLN1110J03969	0.200
244	Tankless Water Heater	Rheem	RTG-95DVN	RHLN1110103965	0.200
244	Water Heater	Bradford White	EF-60T-125E-3N2	JB16207859	0.125
244	Boiler	Lochinvar	KBN400	J11H10199252	0.399
245	Water Heater	Bradford White	RG240T6N	NA37126485	0.040
245	Boiler	Patterson-Kelley	Mach C-1500H	H601-13-8969	1.500
245	Boiler	Patterson-Kelley	Mach C-1500H	H601-13-8975	1.500
245	Heat/Cool	Carrier	NA	NA	0.074
245	Heat/Cool	Carrier	NA	NA	0.074

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
245	Heat/Cool	Carrier	NA	NA	0.074
245	Heat/Cool	Carrier	48TFD006-611	2807620233	0.074
246	Ceiling Heater	Modine	NA	NA	0.400
246	Ceiling Heater	Modine	NA	NA	0.400
246	Ceiling Heater	Modine	NA	NA	0.400
246	Ceiling Heater	Modine	NA	NA	0.400
248	Ceiling Heater	Dayton	NA	NA	0.400
248	Ceiling Heater	Sterling	NA	NA	0.400
248	Ceiling Heater	Sterling	NA	NA	0.400
248	Ceiling Heater	Sterling	NA	NA	0.400
248	Ceiling Heater	Sterling	NA	NA	0.400
250	Boiler	Thermopak	GWA-301	3R8	0.301
252	Boiler	Patterson-Kelley	Mach C-750	W605-15-11555	0.750
252	Paint Booth Heater	Weather-Rite	CAR 650HT	54128B	4.500
252	Paint Booth Heater	Weather-Rite	CAR 650HT	54128A	4.500
252	Paint Booth Heater	Weather-Rite	CAR 650HT	56799A	4.770
252	Paint Booth Heater	Weather-Rite	CAR 650HT	56799B	4.770
252	Boiler	Laars	PNCH0300NACK1CXX	C06179696	0.300
252	Boiler	Laars	PNCH0300NACK1CXX	C06179695	0.300
252	Furnace	Westernaire	MCH-120	W-01-101-15	0.300
252	Boiler	Ravpak	H1-0260	303206045	0.264
252	Heat/Cool	Westernaire	MCH-50	W-01-101-2	0.250
252	Tankless Water Heater	Rinnai	Ru160IN	KEBA-060217	0.160
255	Furnace	Greenheck	DG-120-H30-HZ	05K22404	0.443
256	Paint Booth Heater	Weather Rite	650HT	56190A	3.300
256	Paint Booth Heater	Weather Rite	650HT	56190B	3.300
256	Water Heater	Patterson Kelley	D-700	AZ-45-09-34063	0.700
256	Boiler	Patterson-Kelley	C-1500H	H601-13-8970	1.500
256	Boiler	Patterson-Kelley	C-1500H	H601-13-8968	1.500
256	Paint Booth Heater	JBI	CFA-225	225-4	2.365
256	Paint Booth Heater	JBI	CFA-225	225-5	2.365
257	Boiler	Raypak	H7-1505A	1709451637	1.500
257	Water Heater	AO Smith	BTH-500A300	1744108097987	0.500
257	Water Heater	AO Smith	BTH-500A300	1744108049576	0.500
259	Water Heater	Bradford White	EF60T125E3N2	KD18096444	0.125
259	Water Heater	Bradford White	EF60T199E3N2	KE18247057	0.200
259	Water Heater	Bradford White	EF60T199E3N2	KD18168697	0.200
259	Boiler	Raypak	H7-2005	1303354199	2.000
259	Boiler	Raypak	H7-2005	1303354200	2.000
260	Heat/Cool	Trane	YCH150D4L0BB	803101177D	0.150
260	Heat/Cool	Trane	YSC036A4RLA2TC000A1A00000	803101517L	0.060
260	Heat/Cool	Trane	YSC072A4RLA2WC000A1A00000	803101604L	0.080
260	Heat/Cool	Trane	YSC060A4RLA33C000A1A00000	803101349L	0.060
260	Heat/Cool	Trane	YSC072A4RLA2WC000A1 A00000	803101608L	0.080
260	Heat/Cool	Trane	YSC048A4RLA2XC000A1A00000	803101331L	0.060

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
260	Heat/Cool	Trane	YSC048A4RLA2XC00CA1A00000	803101325L	0.060
262	Boiler	Patterson-Kelley	N-2000-2	CL47-02-24302	2.000
262	Water Heater	Bradford White	M440T6FBN	GC13074571	0.040
270	Boiler	RBI	FB 0750	110437044	0.750
270	Boiler	RBI	FB 0750	100436870	0.750
270	Boiler	RBI	FB 0750	120437333	0.750
270	Water Heater	Vanguard	3WA59	VGLN080652825	0.030
270	Ceiling Heater	Modine	NA	NA	0.400
270	Ceiling Heater	Modine	NA	NA	0.400
270	Ceiling Heater	Modine	NA	NA	0.400
270	Ceiling Heater	Modine	NA	NA	0.400
270	Ceiling Heater	Dayton	NA	NA	0.400
270	Ceiling Heater	Dayton	NA	NA	0.400
270	Ceiling Heater	Dayton	NA	NA	0.400
270	Ceiling Heater	Dayton	NA	NA	0.400
270	Ceiling Heater	Dayton	NA	NA	0.400
270	Ceiling Heater	Dayton	NA	NA	0.400
270	Ceiling Heater	Dayton	NA	NA	0.400
272	Boiler	Ravpak	H-0724A-CCARCCA	1088106940	0.726
277	Boiler	LAARS	PNCH0750NACK2CXN	C07 182107	0.750
277	Water Heater	Rheem	G75-75N-2	RRLN1210100650	0.075
277	Water Heater	Rheem	G75-75N-2	RRLNl210100644	0.075
278	Boiler	Thermo-Pak	GWA-215	11P26	0.215
278	Water Heater	Rheem	G75UN	M141705116	0.075
282	Water Heater	Rheem / Vanguard	1PZ64	VGLN0202A07127	0.036
282	Water Heater	Bradford White	MI5036FBN	MA35556723	0.040
282	Water Heater	Lochinvar	ETN100	CK8374330	0.085
282	Boiler	Patterson-Kelley	C2000H	H841-12-8830	2.000
282	Boiler	Patterson-Kelley	C-300	M549-12-8924	0.300
282	Boiler	Patterson -Kelley	C-300	M549-12-8922	0.300
283	Heat/Cool	Carrier	48HJD012---661--	3300030687	0.180
283	Heat/Cool	Carrier	48LCD006A2A6A0A0AO	4414C86473	0.072
283	Heat/Cool	Carrier	48LCD007A2A6A0A0A0	1515P98597	0.072
283	Water Heater	State Select	GS640YBRTG300	1503J014230	0.040
283	Water Heater	State Select	GS640YBRTG300	1508J000222	0.040
283	Water Heater	Bradford White	RG240T6N	PC39089138	0.040
283	Boiler	RBI	SW-0400	60539017	0.4
283	Boiler	Patterson-Kelley	C750	W638128777	0.750
283	Heat/Cool	Trane	YCH120C4L0AB	L09103774D	0.13 5
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
283	Ceiling Heater	NA	NA	NA	0.125
284	Water Heater	Reliance	5100NRRT970	B98485725	0.075
284	Boiler	Ravpak	H1-0133	205194445	0.136
285	Boiler	Patterson Kellv	C1500H	H601-13-8971	1.500
285	Boiler	Lochinvar	RWN360PM	C014100	0.360
286	Heat/Cool	Carrier	48TMD025---511YA	0204F10706	0.275
286	Tankless Water Heater	Rinnai	RL94e	GD.CA-030547	0.199
290	Heat/Cool	Carrier	48TFD012---511--	3508020705	0.18
290	Boiler	Janitrol	82	02631	0.75
290	Water Heater	AO Smith	FCG100300	1434M001550	0.075
290	Water Heater	AO Smith	GVR40300	1141J004404	0.040
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
290	Ceiling Heater	NA	NA	NA	0.125
292	Boiler	Patterson Kellev	C-1500H	H604-13-9027	1.500
292	Heat/Cool	Carrier	48HJD006---531AA	3600G20311	0.072
292	Water Heater	Bradford White	RG240T6N	PL40504729	0.040
294	Heat/Cool	Trane	NA	NA	0.080
294	Water Heater	AO Smith	BTR365A118	1503M002427	0.365
295	Water Heater	Bradford White	M440T6FBN	JM17526832	0.040
295	Heat/Cool	York	D3CG076N08225B	NDXM116226	0.100
297	Boiler	LAARS	PNCH1000NACN2CXN	C08199319	0.999
297	Water Heater	AO Smith	BTH300A100	0838M000631	0.300
300	Water Heater	Bradford White	M2XR75S6BN	FK12550485	0.076
300	Boiler	Teledyne Laars	HH0400MN20CBAKX	M97A00925	0.399
312	Water Heater	Bradford White	Ml40T6FBN	EK11193400	0.040
312	Boiler	Patterson-Kelley	Mach C-1500	H601-13-8972	1.500
320	Water Heater	Bradford White	MI40T6FBN	EH11037161	0.040
320	Boiler	Teledyne Laars	HH0520MN20CBABX	M97B01419	0.520

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
322	Water Heater	AO Smith	GCV40100	GB040043609	0.040
324	Heat/Cool	Carrier	48HJD008---531AA	2097G30303	0.125
324	Heat/Cool	Carrier	48ewd044---	3497f90447	0.4
324	Boiler	RBI	LB0400	40538448	0.399
324	Boiler	Rite	180X	9797N9	1.800
324	Boiler	Teledyne Laars	HH0715EN09FBACW	C97D02924	0.715
324	Heat/Cool	Carrier	48SS-030040521AA	2097G10868	0.040
324	Heat/Cool	Carrier	48SS-060080531AA	0797G10055	0.080
324	Heat/Cool	Carrier	48SS-048080541AA	1997G10269	0.080
328	Water Heater	Bradford White	MI40T6FBN	MA35614085	0.040
328	Boiler	Patterson-Kelley	Mach C-450	M702-13-9011 A	0.450
330	Water Heater	Rheem	21VR75	RHNG0103116 932	0.075
330	Heat/Cool	Carrier	48TFD008---511--	0303G30440	0.125
330	Heat/Cool	Carrier	48TFD008---511--	0303G30441	0.125
330	Heat/Cool	Carrier	48HJD012---571--	5103G40495	0.180
330	Heat/Cool	Carrier	48HCDD08A2A5A0A0G0	4915P88799	0.125
332	Boiler	Teledyne Laars	HH0520MN20CBABX	M97B01416	0.520
332	Water Heater	Rheem	G100-80N	RRLN0309D04 698	0.076
334	Boiler	RBI	DB1350	100851533	1.350
334	Boiler	LAARS	PW0250CN l 2CBABN	C09209973	0.250
336	Boiler	LAARS	PN CH0750N ACK2C XX	C09215753	0.750
340	Water Heater	PVl Industries	500P250A-TP	1204114826	0 .399
340	Boiler	RBI	MB1750	011466794	1.750
340	Boiler	RBI	MB1750	011466795	1.750
340	Water Heater	Loch invar	CGN055060250	181210967512 8	0.060
340	Boiler	Lochinvar	KHN199	180910942353 6	0.200
350	Heat/Cool	Carrier	48HJD008---531DA	4296030279	0.125
350	Heat/Cool	Carrier	48HJD006---531AA	3600020308	0.072
350	Heat/Cool	Carrier	48HJD006---531AA	3600020309	0.072
350	Heat/Cool	Carrie r	48HJD006---531AA	3600020310	0.072
350	Heat/Cool	Carrier	NA	NA	0.125
350	Water Heater	Rheem-Ruud	HE80-130N	0708T2028N	0.130
362	Water Heater	Rheem	1PZ59	VGLN07024060 8	0.038
362	Water Heater	Bradford White	M440T6FBN	FM12799249	0.040
362	Boiler	Patterson-Kelley	Mac h C-450	M702-13-9014	0.450
414	Furnace	Carrier	59TN6A120V241122	0215A47320	0.12
414	Water Heater	AO Smith	BTH150 200	1509M000323	0.150
414	Ceiling Heater	Re-Verber-Ray	NA	NA	0.160
414	Ceiling Heater	Re- Verber-Ray	NA	NA	0.160
414	Ceiling Heater	Re-Verber-Ray	NA	NA	0.160
414	Ceiling Heater	Re-Verber-Ray	NA	NA	0.160
414	Ceiling Heater	Re-Verber-Ray	NA	NA	0.160
415	Ceiling Heater	Reznor	NA	NA	0.4
415	Ceiling Heater	Reznor	NA	NA	0.4
415	Ceiling Heater	Reznor	NA	NA	0.4
415	Boiler	Patterson-Kelley	Mach C-750	W643-16 -13 089	0.75
415	Heat/Cool	Carrier	48TCDD17A2A6A2B0A0	4517P17497	0.220

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
415	Heat/Cool	Carrier	48TCDD17A2A6A2B0A0	4517P17498	0.220
421	Ceiling Heater	Reznor	NA	NA	0.4
423	Water Heater	Bradford White	D100L1993N	HD14887513	0 .200
423	Boiler	Aerco	EST 399	AE1088	0.399
423	Boiler	Aerco	EST 399	AE1089	0.399
425	Water Heater	State Select	GS640YBRT0300	15081000258	0.040
425	Boiler	Raypack	WH1-0401	912303779	0.399
428	Water Heater	Bradford White	Ml40T6FBN	EG10875810	0.040
428	Boiler	Teledyne Laars	HH0400MN20CBAKX	M97A00941	0.399
429	Water Heater	AO Smith	BTP150-400000	1437R000088	0.400
431	Ceiling Heater	Reznor	Ceiling Heater	NA	0.400
431	Ceiling Heater	Reznor	Ceiling Heater	NA	0.400
431	Ceiling Heater	Reznor	Ceiling Heater	NA	0.400
431	Heat/Cool	Carrier	48EJE028---	4501F22683	0.525
431	Heat/Cool	Carrier	48EJE028---	4501F22684	0.525
431	Heat/Cool	Carrier	48EJE028---	4501F22685	0.525
431	Heat/Cool	Carrier	48EJE028---	4501F22695	0.525
431	Heat/Cool	Carrier	48HJF006---641DA	4301G21430	0.15
431	Heat/Cool	Carrier	48EJE034---	4501F22701	0.525
431	Heat/Cool	Carrier	48EJE034---	4501F22692	0.525
431	Heat/Cool	Carrier	48HJF0l7	2801F94916	0.36
431	Heat/Cool	Carrier	48HJF0l7	2101F85627	0.36
431	Heat/Cool	Carrier	48HJF007---641DA	4301G24400	0.15
431	Heat/Cool	Carrier	48HJF007---641DA	4301G24401	0.15
431	Heat/Cool	Carrier	48HJF005---641DA	4301G24336	0.15
431	Heat/Cool	Carrier	48EJE034---	4501F22697	0.525
431	Heat/Cool	Carrier	48EJE034---	4501F22696	0.525
431	Heat/Cool	Carrier	48EJE034---	4501F22700	0.525
431	Heat/Cool	Carrier	48EJE024---	4501F22691	0.35
431	Heat/Cool	Carrier	48A2D035-PN621LL	5016U44523	0.35
431	Heat/Cool	Carrier	48HJD012---631DA	4895G30285	0.18
431	Heat/Cool	Carrier	48HJD012---631DA	4895G30280	0.18
431	Heat/Cool	Carrier	NA	NA	0.525
431	Heat/Cool	Carrier	48HJD012---631DA	4895030283	0.18
431	Heat/Cool	Carrier	48HCDD12A2A6A0B0A0	1215P97720	0.18
431	Heat/Cool	Carrier	48HCDA06A2A6A0B0A0	0415C84494	0.072
431	Heat/Cool	Carrier	48HCDD12A2A6A0B0A0	1215P97718	0.18
431	Heat/Cool	Carrier	48HCDD12A2A6A0B0A0	1215P97719	0.18
431	Heat/Cool	Carrier	48HCDD12A2A6A0B0A0	1215P97717	0.18
431	Heat/Cool	Carrier	48HJF006 ---641DA	4301G21430	0.15
431	Water Heater	Bradford White	100T8883N	MA35593963	0.085
431	Water Heater	Bradford White	1O0T8883N	MA35593964	0.085
431	Water Heater	Bradford White	100T8883N	LC34119289	0.085
431	Water Heater	Bradford White	D100Ll993N	PA38768937	0.200
431	Water Heater	AO Smith	BT65l04	MB02-1469332-104	0.060
431	Water Heater	A.O. Smith	FSG30248	GJ0l-0161974-248	0.032
431	Ceiling Heater	Renzor	NA	NA	0.400
439	Heat/Cool	Carrier	48HCDD08A2A6A0A0A0	0115P37931	0.125
439	Heat/Cool	Carrier	48TCDA06A2A6A0A0A0	111OG10242	0.072
439	Ceiling Heater	Janitrol	WHE-30	911H5096	0.03
439	Ceiling Heater	Janitrol	WHE-30	NA	0.03

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
439	Water Heater	Bradford White	MI40T6FBN	HK15661792	0.040
439	Water Heater	Bradford White	MI40T6FBN	GB13053593	0.040
442	Heat/Cool	Titan	TA-120NGHRVw/EV	11934	0.605
442	Heat /Cool	Titan	TA-120NGHRVw/EV	11933	0.605
442	Ceiling Heater	Modine	Hot Dawg UH-06W	NA	0.125
442	Ceiling Heater	Modine	Hot Dawg UH-04W	NA	0.125
442	Ceiling Heater	Modine	Hot Dawg UH -07W	NA	0.125
442	Ceiling Heater	Modine	Hot Dawe UH-07W	NA	0.125
442	Water Heater	Bradford White	D100L1993N	EE10606894	0.200
442	Heat/Cool	Trane	YCH301C4H0CA	826100372D	0.400
443	Heat/Cool	Carrier	48TCDD25A6A5A6B0G0	2318P23973	0.220
445	Water Heater	Bradford White	100T88B3N	LD34355886	0.7
445	Boiler	Ajax	WGFD-700	89-42100	0.812
447	Heat/Cool	Carrier	48TJD0l6	4799F65040	0.230
448	Heat/Cool	NA	NA	NA	0.5
449	Heated Pressure Washer	Landa	VHG4 -22024A	11095350-162233	0.4
449	Heat/Cool	Modine	HFP350AMRLN23F2	0917 094815-8170	0.35
449	Heat/Cool	Modine	HFP350AMRLN23F2	0917094815-8172	0.35
449	Heat/Cool	Modine	HFP350AMRLN23F2	0917094815-8171	0.35
449	Ceiling Heater	Modine	Hot Dawg UH-l 0A	NA	0.125
449	Water Heater	AO Smith	BTX80100	1504M002374	0.076
450	Ceiling Heater	Modine	Hot Dawg UH-1 L	NA	0.125
450	Ceiling Heater	Modine	Hot Dawg UH-2L	NA	0.125
450	Ceiling Heater	Modine	Hot Dawg UH-3L	NA	0.125
450	Ceiling Heater	Modine	Hot Dawg UH-4L	NA	0.125
450	Ceiling Heater	Modine	Hot Dawg UH-5L	NA	0.125
450	Ceiling Heater	Modine	Hot Dawg UH-6L	NA	0.125
450	Ceiling Heater	Modine	Hot Dawg UH-7L	NA	0.125
450	Ceiling Heater	Modine	Hot Dawg UH-8L	NA	0.125
450	Ceiling Heater	Modine	Hot Dawg UH-9L	A	0.125
450	Ceiling Heater	Modine	Hot Dawg UH-11L	NA	0.125
451	Boiler	RBI	DB0400	120437131	0.399
451	Water Heater	Bradford White	MI40T6FBN	LF34557886	0.040
451	Furnace	Carrier	48TMD008---501--	3505G30678	0.125
453	Water Heater	AO Smith	FCV 50 100	GG03-1661114-100	0.040
453	Heat/Cool	Trane	YCH150D3L0BA	335100998D	0.150
453	Heat/Cool	Trane	YCH150D3L0BA	333100525D	0.150
454	Water Heater	Bradford White	RG240T6N	NB37357518	0.040
454	Heat/Cool	Trane	YCH150D3L0BA	333100474D	0.150
454	Heat/Cool	Trane	YCH150D3L0BA	335100923D	0.150
461	Heat/Cool	Carrier	48HJD008---541--	1904G40672	0.125
462	Heat/Cool	Modine	MDB127AC1375BB1CA5BH2G	761886-01-3112	1.150
467	Boiler	Patterson-Kelley	C-4000	K240-12-8806	4.000
467	Boiler	Patterson-Kelley	C-4000	K203-13-9024	4.000
470	Boiler	Patterson Kelley	C450LNX	M702-13-9009A	0.450
523	Boiler	RBI	LB300	111057384	0.300
523	Boiler	Ravpak	WH1-0401	1007312048	0.399

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
536	Boiler	Patterson- Kelley	N-700	AL22-03-25014	0.700
536	Boiler	Raypak	WH1-0400	0305208313	0.399
538	Boiler	Teledyne Laars	HH0320MN20CBAKX	M97A01035	0.320
540	Boiler	Patterson Kelley	C450	M743-11-7537A	0.450
545	Boiler	Raypak	WH1-0400	0603248609	0.399
545	Boiler	Raypak	WH1-0401	0912303780	0.399
552	Boiler	Patterson-Kelley	C-1500H	H601-13-8974	1.500
552	Boiler	Patterson-Kelley	N-1500-2	CY35-07-31470	1.250
552	Boiler	Patterson-Kelley	Mach C-1050	W838-12-8779A	1.050
554	Boiler	Patterson-Kelley	C-450	M702-13-9007A	0.450
554	Water Heater	Rheem	G100-270A-8	URNG0401G04386	0.270
554	Water Heater	Rheem	G100-270A-8	URNGA111403320	0.270
556	Boiler	Patterson Kelley	Mach C-3000	K943-12-8856	3.000
556	Boiler	Patterson Kelley	Mach C-3000	K901-13-8985	3.000
556	Boiler	Patterson Kelley	Mach C-3000	K940-12-8800	3.000
565	Heat/Cool	Carrier	48GS-036060501	2399G10675	0.060
565	Heat/Cool	Carrie r	48TCDA04A2A3A0A0A0	1113C60727	0.072
567	Boiler	Patterson- Kelley	N-1500-2	CY02-06-28964	1.500
567	Boiler	Patterson- Kelley	N-1500-2	CY02-06-28965	1.500
584	Water Heater	Bradford White	100T88B3N	DD9039402	0.085
584	Boiler	Patterson- Kelley	Mach C-300	M549-12-8932A	0.300
584	Heat/Cool	Carrier	48PMDM16-F-50CQ	4509G40036	0.250
585	Boiler	Patterson-Kelly	N-2000-2	CY30-07-31336	2.000
585	Water Heater	Bradford White	D100L1993N	EL11270373	0.200
586	Boiler	Teledyne Laars	HH0520MN20CBABX	M97B01512	0.520
586	Water Heater	Bradford White	MI40T6FBN	JJ17143237	0.040
588	Water Heater	Bradford White	RG240T6N	MF36345206	0.040
588	Boiler	Teledyne Laars	HH0400MN20CBAKX	M97A00670	0.399
595	Boiler	Lochinvar	CBN0985	C974226	0.985
595	Boiler	Lochinvar	CBN0985	C974227	0.985
595	Water Heater	Bradford White	MI40T6FBN	LE34388051	0.040
600	Water Heater	Bradford White	M2XR75S6BN	DD9053860	0.076
600	Water Heater	Bradford White	M2XR75S6BN	HA14455287	0.076
600	Boiler	Patterson-Kelley	C-900	W746-12-8908	0.900
604	Tankless Water Heater	Rinnai	RL751	CA-079717	0.180
604	Heat/Cool	York	DF120N15N2FAA3C	N0E7830020	0.180
605	Heat/Cool	Carrier	48PMDM16-A-60-BH	250G10038	0.25
605	Heat/Cool	Carrier	48PMDM16-A-60-BH	250G10039	0.25
610	Furnace	Amana	PGB36A0452A	9108033250	0.045
610	Water Heater	Bradford White	MIMH30T6FLX	FB11633167	0.032
610	Heat/Cool	Carrier	48HJD012-571	2902G40667	0.180
615	Water Heater	Bradford White	D100L1993N	LK35145744	0.200
615	Boiler	Teledyne Laars	HH0520MN20CBABX	M97B01500	0.520
616	Heat/Cool	Carrier	48TCDD08A2A5A0A0A0	3517P41607	0.125
617	Boiler	Teledyne Laars	HH0320MN20CBAKX	M97A01040	0.320
620	Boiler	Camus	MFNH 1600-E-02	020501489	1.600
620	Water Heater	Bradford White	M15036FBN	GE13368073	0.040

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
623	Heat/Cool	Carrier	48GX-048090301	2499G11596	0.090
623	Heat/Cool	Carrier	48HJD008-531AA	2195G30560	0.125
625	Boiler	Ravpak	WH1-0400	0409225732	0.399
625	Boiler	Patterson-Kelley	Mach C-1050	W838-12-8764A	1.050
625	Boiler	Patterson-Kelley	Mach C-1050	W851-16-13172A	1.050
625	Boiler	Johnston	516SACG	S3381	0.196
625	Boiler	Johnston	516SACG	S3380	0.196
704	Boiler	Raypak	H2-1223	9810152937	1.2205
704	Boiler	Raypak	W1-1631	9810152936	1.630
715	Boiler	Patterson -Kelley	N-700	AL26-03-25165	0.700
715	Boiler	Raypak	WH1-0400	0305208314	0.399
730	Water Heater	Rheem	RTG-950VN	RHLN1110J04244	0.200
745	Boiler	Patterson Kelley	N700	AY010831936	0.700
745	Boiler	Laars	PW0325CN12CBACN	D02CB0039	0.325
767	Boiler	Patterson Kelley	N700	AY07-10 - 34309	0.700
767	Boiler	Lochinvar	PFN1701	L12H00245112	1.700
767	Boiler	Lochinvar	PFN 1701	L12H00245113	1.700
775	Boiler	Teledyne Laars	HH0400MN20CBAKX	M97A00669	0.399
775	Boiler	Teledyne Laars	HH0400MN20CBAKX	M97A00940	0.399
777	Boiler	Teledyne Laars	HH0400MN20CBAKX	M97A00924	0.399
777	Boiler	Aerco	AM399WWXV	16190106	0.399
777	Boiler	RBI	LB1650NOR2A2CA	070435795	1.650
781	Boiler	LAARS	NTH750NJX3	G16357784	0.750
781	Boiler	LAARS	NTH750NJX3	G16357788	0.750
781	Boiler	Lochinvar	AWN701PM	1625103097192	0.700
781	Boiler	Lochinvar	AWN701PM	1625103097191	0.700
781	Boiler	Lochinvar	AWN701PM	1625103097190	0.700
790	Boiler	Patterson Kelley	CM-399	A451-15-12424	0.399
790	Heat/Cool	York	DJ150N15Q4BMA4B	N0H8211452	0.180
790	Heat/Cool	Carrier	48HCDD24ABA6A0P0A0	4413P21262	0.220
790	Heat/Cool	York	Z33AN54NGKDFB10001A	N1A0485051	0.533
791	Boiler	Laars	HH0715EN09KBACCQ	C07194257	0.715
791	Boiler	Laars	HH0715EN09KBACCQ	C07194256	0.715
802	Heat/Cool	Carrier	48SX-030040321	3695080496	0.040
802	Heat/Cool	Amana	PGA48B0902A	9203257144	0.09
805	Boiler	Raypak	H1-0260	212202758	0.264
807	Water Heater	Bradford White	RG250T6N	PC39097639	0.040
807	Boiler	Patterson-Kelley	C-1500H	H601-13-8973	1.500
808	Boiler	RBI	LB300	11157934	0.300
808	Water Heater	Bradford White	M130T6FBN	MB35675196	0.032
809	Water Heater	Bradford White	MI40T6FBN	JL17352797	0.040
809	Heat/Cool	Carrier	48HJD012-671	4008G11541	0.180
809	Heat/Cool	Trane	YSH240F4RLA03	134 1 10689D	0.250
810	Heat/Cool	Central Environmental Systems	DCUC-T120N205C	NHBM056766	0.204

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
811	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
811	Ceiling Heater	Reznor	Ceiling Heater	NA	0.400
811	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
811	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
811	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
811	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
811	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
811	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
811	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
811	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
811	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY- VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY- VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.12
811	Water Heater	Bradford White	MI40T6FBN	EG10807218	0.040
811	Boiler	Patterson Kelley	C450	M702-13-9012	0.450
811	Heat/Cool	Trane	YCH120C3L0AC	P52101151D	0.135
811	Heat/Cool	Carrier	48HGD016A--511SN	2505G30012	0.250
811	Heat/Cool	Carrier	48HGE028AC-5112G	5005G50025	0.365

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.120
811	Ceiling Heater	CO-RAY-VAC	NA	NA	0.120
812	Water Heater	AO Smith	BTC 120 920	MD93-026609 1-920	0.120
812	Boiler	Smith Castiron	03 00-S/W-10 INT	A93-166	0.675
813	Ceiling Heater	Dayton	4E454	Q9553664	0.03
813	Pressure Washer	Hydroblasters	4/2000EHGV	96060030	0.325
814	Water Heater	Bradford White	Ml40T6FBN	FF12089275	0.040
826	Boiler	Raypak	H1-0260	0304206977	0.264
828	Heat/Cool	Carrier	48HCDD08A2A5A0A0A0	3916P38982	0.125
828	Boiler	Raypak	WH1-0400	305208316	0.399
828	Water Heater	Bradford White	RG240T6N	PL40504652	0.040
831	Ceiling Heater	Fostoria	NA	NA	0.92151
831	Ceiling Heater	Fostoria	NA	NA	0.92151
831	Ceiling Heater	Fostoria	NA	NA	0.92151
831	Ceiling Heater	Fostoria	NA	NA	0.92151
831	Ceiling Heater	Fostoria	NA	NA	0.92151
831	Ceiling Heater	Fostoria	NA	NA	0.92151
831	Ceiling Heater	Fostoria	NA	NA	0.92151
831	Ceiling Heater	Fostoria	NA	NA	0.92151
831	Heat/Cool	Carrier	NA	NA	0.5
831	Heat/Cool	Carrier	NA	NA	0.5
831	Heat/Cool	Carrier	NA	NA	0.5
831	Water Heater	AO Smith	BTR 200 110	A06M001782	0.199
832	Boiler	Raypak	H1-0260	409225729	0.264
832	Ceiling Heater	Fostoria	NA	NA	0.92151
832	Ceiling Heater	Fostoria	NA	NA	0.92151
832	Ceiling Heater	Fostoria	NA	NA	0.92151
832	Ceiling Heater	Fostoria	NA	NA	0.92151
832	Ceiling Heater	Fostoria	NA	NA	0.92151
832	Ceiling Heater	Fostoria	NA	NA	0.92151
832	Ceiling Heater	Fostoria	NA	NA	0.92151
832	Ceiling Heater	Fostoria	NA	NA	0.92151
832	Water Heater	AO Smith	BTR 200 110	H04M017576	0.199
836	Ceiling Heater	Dayton	NA	NA	0.4
836	Ceiling Heater	Dayton	NA	NA	0.4
836	Ceiling Heater	Dayton	NA	NA	0.4
836	Ceiling Heater	Gaffers & Sattler	NA	NA	0.400
838	Ceiling Heater	Dayton	NA	NA	0.4
838	Ceiling Heater	Dayton	NA	NA	0.4
840	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
840	Ceiling Heater	Dayton	NA	NA	0.4
840	Ceiling Heater	Reznor	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Ceiling Heater	NA	NA	NA	0.4
840	Water Heater	Bradford White	MI40T6FBN7	BL6944271	0.040
840	Ceiling Heater	NA	NA	NA	0.400
843	Heat/Cool	Trane	YSC102E3RLA12D000A1 B000B0	112412321L	0.120
848	Heat/Cool	Carrier	48TCDD24AFA5A0A0A0	4511U48786	0.220
849	Ceiling Heater	Reznor	NA	NA	0.4
849	Ceiling Heater	Reznor	NA	NA	0.4
849	Heat/Cool	American Standard	YHC072A3ELA2R	809102982L	0.080
854	Water Heater	Bradford White	MI30T6FBN	KA17674058	0.032
854	Ceiling Heater	Fostoria	NA	NA	0.922
854	Ceiling Heater	Fostoria	NA	NA	0.922
858	Ceiling Heater	Sterling	Ceiling Heater	NA	0.400
858	Ceiling Heater	Sterling	Ceiling Heater	NA	0.400
858	Ceiling Heater	Sterling	Ceiling Heater	NA	0.400
858	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
858	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
858	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
858	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
858	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
858	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
858	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
858	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
858	Ceiling Heater	Reznor	Ceiling Heater	NA	0.400
858	Ceiling Heater	Reznor	Ceiling Heater	NA	0.400
858	Ceiling Heater	Reznor	Ceiling Heater	NA	0.400
858	Ceiling Heater	Reznor	Ceiling Heater	NA	0.400
858	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
858	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
858	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
858	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
858	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
858	Ceiling Heater	Advanced Dunbar Product	Ceiling Heater	NA	0.400
858	Ceiling Heater	Advanced Dunbar Product	Ceiling Heater	NA	0.400
858	Water Heater	Vanguard	3WA62	VGLN04065035 9	0.036
858	Water Heater	Bradford White	RG240T6N	ML36955242	0.040
858	Boiler	Ajax	WG-600	90-42319	0.600
861	Ceiling Heater	Reznor	NA	NA	0.4
861	Ceiling Heater	Reznor	NA	NA	0.4
861	Ceiling Heater	Reznor	NA	NA	0.400
867	Water Heater	Bradford White	M440T6FBN	JM17547017	0.040
868	Ceiling Heater	Dayton	3E373D	B01G003605	0.200
868	Ceiling Heater	Reznor	Ceiling Heater	NA	0.400

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
868	Pressure Washer	Hotsy	1832ss-208	11096610-100150	0.558
868	Paint Booth Heater	Rupp Industries	RAM30	S85181A	3.025
869	Ceiling Heater	Dayton	NA	NA	0.2
870	Boiler	Ravpak	H3-0330	709271480	0.327
873	Ceiling Heater	Reznor	NA	NA	0.4
873	Ceiling Heater	Reznor	NA	NA	0.4
873	Ceiling Heater	Reznor	NA	NA	0.4
873	Ceiling Heater	Reznor	NA	NA	0.4
873	Ceiling Heater	Reznor	NA	NA	0.4
873	Ceiling Heater	Reznor	NA	NA	0.4
873	Ceiling Heater	Reznor	NA	NA	0.4
873	Water Heater	Bradford White	MI40T6FBN2	ZM3994643	0.040
873	Furnace	Lennox	G2055/6E-150-2	5893C13420	0.150
874	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
874	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
874	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
874	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
877	Heat/Cool	Carrier	48TJD012---511GA	4599030912	0.180
877	Heat/Cool	Carrier	48TJF016---591AA	0404F13121	0.300
877	Heat/Cool	Carrier	48TJF016---591AA	0404F13119	0.300
878	Water Heater	Bradford White	EF100T150E3N2	JL17367138	0.150
878	Boiler	Lochinvar	KBN500	J08H10069541	0.500
878	Boiler	Ajax	WNG250	57547	0.250
878	Boiler	Rite	48	8319044	0.250
880	Heat/Cool	Carrier	48TCDA06A2A5A0A0A0	1412C68310	0.072
880	Water Heater	Bradford White	MI40T6FBN	EA10049337	0.040
880	Boiler	Rite	48	8319045	0.250
882	Water Heater	Bradford White	M440T6FBN	JM17475328	0.040
882	Boiler	Rite	48	8319046	0.250
882	Heat/Cool	Carrier	48TCDA06A2A5A0B0A0	3713C72061	0.072
882	Heat /Cool	Trane	YCC048F1M0BF	R031SW11H	0.080
899	Water Heater	Bradford White	RG240T6N	NL38596970	0.040
899	Boiler	Patterson-Kelley	C-300	M516-07-1793	0.300
1015	Water Heater	Bradford White	RG2S0T6N	PA38899167	0.040
1018	Heat/Cool	Trane	YCD211C3HBCA	503100807D	0.350
1037	Water Heater	AO Smith	BT80931	ML88-0145198-931	0.075
1037	Boiler	LAARS	PNCH0200NACC1BXN	C08194822	0.199
1037	Water Heater	Bradford White	MI40T6FBN	LF34557891	0.040
1041	Heat/Cool	Carrier	48HJE012---531--	2596G30752	0.224
1041	Heat/Cool	Carrier	58STX11022	4114A17673	0.11
1100	Water Heater	American Water Heater	G62-75T75-4NV	0401131700	0.075
1100	Boiler	Patterson-Kelley	C-450	M702-13-9008A	0.450
1106	Heat/Cool	Carrier	48TFD008611	2404050931	0.125
1106	Heat/Cool	Carrier	48TFD008611	1604G30608	0.125
1106	Heat/Cool	Carrier	48TFD008611	1604G30609	0.125
1106	Heat/Cool	Carrier	48TFD008611	2404G50932	0.125
1107	Heat/Cool	York	DM090N15N4AAA4B	N0C8673583	0.180
1107	Heat/Cool	York	DM090N15N4AAA4B	N0C8673584	0.180
1107	Heat/Cool	York	DM090N15N4AAA4B	N0B8649522	0.180
1107	Heat/Cool	York	DM090N15N4AAA4B	N0B8661713	0.180

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
1110	Heat/Cool	Carrier	48TFE004511BA	4305G30428	0.074
1300	Boiler	Thermal Solutions	EVCA1500BN1-UCC	65404953	1.500
1300	Boiler	Thermal Solutions	EVCA1500BN1-UCC	65404952	1.500
1300	Boiler	Thermal Solutions	EVCA1500BN1-UCC	65404954	2.000
1300	Boiler	Thermal Solutions	EVCA1500BN1-UCC	65404955	2.000
1301	Ceiling Heater	Solaronics	NA	NA	0.2
1301	Ceiling Heater	Solaronics	NA	NA	0.2
1301	Ceiling Heater	Reznor	NA	NA	0.4
1301	Ceiling Heater	Reznor	NA	NA	0.4
1301	Boiler	Fulton	VMP-60	TBD	2.392
1301	Boiler	Fulton	VMP-60	TBD	2.392
1301	Boiler	Fulton	VMP-60	TBD	2.392
1705	Pool Heater (Boiler)	Raypak	P-1005A	1805466426	0.999
1705	Boiler	Patterson Kelly	C2000H	H846-15-12340	2.000
1705	Boiler	Patterson Kelly	C2000H	H846-15-12342	2.000
1705	Boiler	Patterson Kelly	C2000H	H846-15-12341	2.000
1706	Boiler	Fulton	PHW 500	114861	0.500
1706	Water Heater	AO Smith	AT-D2-IN-N	77005505	0.199
1706	Water Heater	AO Smith	AT-D2-IN-N	77003353	0.199
1730	Boiler	Lochinvar	KBN400	K10H10159829	0.399
1770	Boiler	Laars	PNCH0300NACC1CXN	C08199032	0.299
1770	Boiler	Laars	NTH399NXN2	G 10 130 223	0.399
1770	Water Heater	AO Smith	BTR 305A 118	0908M001669	0.305
1770	Water Heater	Bradford White	D80L3993NA	CK8317251	0.400
1780	Boiler	LAARS	MLXHW175NA1LN	J16277336	0.17 5
1780	Boiler	LAARS	MLXHW175NA1LN	J16277337	0.175
1780	Water Heater	AO Smith	BTH-300A 200	1512M001462	0.300
2935	Water Heater	Bradford White	D100L1993N	2B33923945	0.200
2935	Water Heater	Bradford White	D100L1993N	PG39779023	0.200
2945	Boiler	Laars	HH0715EN09KBACCQ	C07190902	0.311
2950	Water Heater	State Industries	SBD100199NES	F06M001996	0.200
2950	Water Heater	Bradford White	D100L1993N	KK28002280	0.200
2955	Boiler	Laars	HH0715EN09KBACCQ	C07190901	0.715
2970	Boiler	Laars	HH0715EN09KBACCQ	C07190900	0.399
2975	Water Heater	Bradford White	D100L1993N	LA33846398	0.200
2975	Water Heater	Bradford White	D100L1993N	PK40251720	0.200
2996	Heat/Cool	Payne	PY3GNAA24040AA	3409C18003	0.04
2996	Water Heater	Bradford White	100T8883N	HJ15534569	0.085
2999	Boiler	Rite Boiler	76	24968	0.760
2999	Water Heater	Bradford White	RG250T6N	SB41023808	0.040
6441	Heat/Cool	NA	NA	NA	0.5
6441	Water Heater	Bradford White	RG240T6N	PA38890321	0.040
6451	Heat/Cool	NA	NA	NA	0.5
6451	Water Heater	Bradford White	RG240T6N	PL40504688	0.040
6461	Heat/Cool	York	NA	NA	0.5
6461	Water Heater	Bradford White	RG240T6N	NF37805176	0.040
6471	Heat /Cool	NA	NA	NA	0.5
6471	Water Heater	GE	GG50T06AQJ00	GELN1106Z07577	0.038
6501	Heat/Cool	NA	NA	NA	0.5

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
6501	Heat/Cool	NA	NA	NA	0.5
6501	Water Heater	Rheem	22V50F1	RHLN0608Z0 1605	0.038
6501	Water Heater	Bradford White	RG240T6N	RHLN0608z0 1605	0.040
10108	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
10108	Ceiling Heater	Dayton	3E373B	87548625	0.400
10108	Ceiling Heater	Dayton	3E406B	09545845	0.400
10118	Heat/Cool	Carrier	48LCD008A2A5A0A0A0	3114P08766	0.150
10118	Heat/Cool	Trane	YSC060E3ELA 18000000000000	111411268L	0.060
10118	Water Heater	Bradford White	MI5036FBN	HD14840055	0.040
10119	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
10120	Water Heater	GE	GG50T06AVH00	GELN0409Z005 35	0.038
10121	Ceiling Heater	Modine	PD175AE0130	30101013300-0899	0.175
10123	Ceiling Heater	Reznor	Ceiling Heater	NA	0.400
10126	Heat/Cool	Trane	YCH090C3L0BE	R09100079D	0.120
10127	Water Heater	Rheem	XG40T06EC36Ul	M291612576	0.036
10130	Heat/Cool	Trane	YCH240B3L0DE	L24101445D	0.25
10132	Furnace	Tjernlund	BC-410	80-146A	0.25
10142	Water Heater	Rheem	ES120-36-G	0307E01063	0.35
10146	Heat/Cool	International Comfort Products	PGE120HDA00AAA--	G083310752	0.180
10146	Heat/Cool	Tempstar	PGE180HDA00AA	U083020828	0.275
10148	Ceiling Heater	Dayton	NA	NA	0.4
10148	Ceiling Heater	Dayton	NA	NA	0.4
10148	Ceiling Heater	Dayton	NA	NA	0.4
10148	Furnace	Rupp Air	RAM30	S200230	1.728
10150	Heat/Cool	Lennox	KGA180S4BS1Y	5611M06278	0.260
10150	Heat/Cool	Lennox	KGA180S4BS1Y	5611M02813	0.260
10154	Heat/Cool	Carrier	48HJD009BHL651--	2305G30701	0.125
10154	Heat/Cool	Carrier	48HJD008BHL641--	2405G40694	0.125
10154	Boiler	Lochinvar	CWN1796	C06H00184458	1.800
10154	Boiler	Lochinvar	CWN1796	C06H00184459	1.800
10155	Ceiling Heater	Reznor	UDAP30	NA	0.03
10155	Ceiling Heater	Reznor	UDAP30	BFJ79Y2N23 145X	0.03
10155	Heat/Cool	Carrie r	58STA070---12112	3306A17140	0.066
10156	Heat/Cool	Trane	YCH420BELM0B2DA1A	C14K06430	0.350
10156	Heat/Cool	Trane	YCH180B3L0FA	R27100580D	0.250
10156	Heat/Cool	American Standard	YCH240B3L0JB	743101322D	0.250
10157	Furnace	Carrier	58STA070---12112	3306A17125	0.066
10157	Ceiling Heater	Reznor	UDAP30	NA	0.03
10157	Ceiling Heater	Reznor	UDAP30	NA	0.03
10157	Water Heater	AO Smith	GCG65100	M06A065817	0.065
10159	Heat/Cool	Trane	YCH360BELH0A1CC1	C12A00556	0.350
10159	Heat/Cool	Trane	YSC092E3RLA17D	120611282L	0.120
10177	Heat/Cool	Trane	YCH120C3L0AC	R36101795D	0.135
10177	Heat/Cool	Trane	YCC036F3L0BE	R333XWL1H	0.040
10177	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
10177	Water Heater	AO Smith	BTR180110	MB040002849	0.180

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
10201	Furnace	York	D2CG240N24025F	NKHM132142	0.3
10201	Furnace	Goodman	PG120250-3AB	9506800029	0.23
10201	Furnace	York	D2CG240N24025F	NKHM127405	0.300
10202	Heat/Cool	Carrier	48HCDD24AFA5A0A0A0	4616P20536	0.22
10202	Heat/Cool	Carrier	48HCDD24AFA5A0A0A0	4616P20535	0.22
10202	Heat/Cool	Carrier	48HCDD24AFA5A0A0A0	4616P20533	0.22
10202	Heat/Cool	Carrier	48HCDD24AFA5A0A0AO	4616P20534	0.22
10202	Boiler	Raypak	H9-1262B	1005309323	1.26
10202	Boiler	Patterson Kelley	C-1050	W812-18-14077	1.050
10204	Heat/Cool	York	ZJ180N24P2AAA1B	N1F1082663	0.300
10206	Furnace	Lennox	GCS16-1603-270-2Y	5689F00244	0.27
10206	Furnace	Lennox	GCS16-1603-270-2Y	5689F00160	0.27
10206	Furnace	Goodman	PG120250-3AB	9503139519	0.23
10206	Furnace	Goodman	PG120250-3AB	9503139485	0.23
10206	Furnace	Goodman	PG120250-3AB	9503139509	0.23
10206	Boiler	AO Smith / Duramax	DW840S110E	J9633731	0.84
10206	Boiler	Parker	40L	964610	1.680
10210	Boiler	Raypak	W1-0263B-BCDRDAA	9309110415	0.264
10210	Boiler	Raypak	H1-0624C-CEARCAA	9309110498	0.627
10211	Heat/Cool	Carrier	48LCD017A7M5A0A3A0	1616P29224	0.22
10234	Boiler	Teledyne Laars	PW0400CN12C	8891537	0.400
10234	Boiler	Fourmost	DSID525-80-1	A902500302	0.505
10236	Boiler	Lochinvar	CWN0475	H913330	0.475
10236	Water Heater	Rheem	G91-200	URNG0998G01 125	0.199
10237	Water Heater	Bradford White	100T883N	MM0787574	0.088
10237	Heat/Cool	Trane	YCH150B3L0CA	NA	0.150
10242	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10242	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10242	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10242	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10242	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10242	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10242	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10242	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10242	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10242	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10246	Heat/Cool	Carrier	48HCDA05A2M5ADR0A0	0813C89856	0.072
10246	Water Heater	Envirotemp	G2F7575T4NOV300	1309A006663	0.075
10246	Water Heater	Envirotemp	G2F7575T4NOV300	1309A006655	0.075
10247	Heat/Cool	Trane	YCH300B3L0HB	937100253D	0.250
10248	Heat/Cool	Trane	YCH150D3L0BB	937100255D	0.150
10250	Heat/Cool	Trane	YCH150E3L0AA	930100457D	0.150
10250	Heat/Cool	Trane	YCH150E3L0AA	930100484D	0.150
10278	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
10278	Ceiling Heater	Modine	Ceiling Heater	NA	0.400
10301	Boiler	Patterson Kelley	C300	M512-07-1718	0.300
10432	Boiler	Lochinvar	RBN270	D015368	0.270
10558	Heat/Cool	Trane	YCH181B3L0DD	L41103594D	0.250
10558	Water Heater	GE	GG40T06AVG01	GELN1107V045 4 5	0.036

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
10560	Heat/Cool	Trane	YSC090F3RLA08C	144810842L	0.12
10564	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
10564	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
10564	Water Heater	GE	GG30T6A	GENG030323114	0.032
10566	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10566	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10566	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10566	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10566	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10566	Ceiling Heater	Re-Verber-Ray	Ceiling Heater	NA	0.160
10569	Heat/Cool	Carrie r	48TCDA06A2A5A0A0A0	0910G50101	0.072
10569	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
10569	Ceiling Heater	Solartronics	Ceiling Heater	NA	0.200
10569	Tankless Water Heater	Rinnai	NA	NA	0.199
10569	Tankless Water Heater	Rinnai	NA	NA	0.199
10570	Ceiling Heater	Dayton	Ceiling Heater	NA	0.400
10570	Ceiling Heater	Dayton	NA	NA	0.4
10570	Water Heater	GE	GG40T06AVG01	GELN0I08V12293	0.036
10575	Ceiling Heater	Reznor	NA	NA	0.4
10575	Ceiling Heater	Reznor	NA	NA	0.4
10590	Water Heater	A.O. Smith	G9-T5040NV400	1.8171JE+12	0.040
10650	Pressure Washer	Landa	VNG8-30024B	11095790-100046	0.752
10650	Pressure Washer	Landa	VNG8-30024B	11095790 - 100045	0.752
61663	Water Heater	American Commercial	DCG31-100T199-6N	ZF3288252	0.200
61663	Boiler	Raypak	W1-03338-CCDRBDA	9301105478	0.333
61664	Water Heater	AO Smith	BT80202	MF93-0276371-202	0.075
61664	Boiler	Patterson-Kelley	C-1050	W845-12-8885	1.050
61664	Water Heater	AO Smith	BT80202	MC93-0264749-202	0.075
61686	Furnace	Carrier	58WAV111-20	2401A71775	0.11
61686	Furnace	Carrie r	58WAV111-20	2401A71759	0.11
61686	Ceiling Heater	Sterling	NA	NA	0.4
61686	Ceiling Heater	Sterling	Ceiling Heater	NA	0.400
61686	Ceiling Heater	Sterling	Ceiling Heater	NA	0.400
61686	Ceiling Heater	Sterling	NA	NA	0.400
61697	Boiler	Parker	T760R	55298	0.760
61697	Water Heater	State	SBF100260NET	H02159238	0.260
61698	Heat/Cool	Trane	MCCB010UA0C0UA	K05C32000	0.249
61699	Heat/Cool	Trane	MCCB010UA0C0UB	K05C31992	0.249
2508	Water Heater	Bradford White	Ml40T6FBN2	ZM3994724	0.040
2508	Heat/Cool	Trane	YCH151C3L0BB	642101703D	0.150
2508	Heat/Cool	Carrier	48HJD014---561--	1205G30657	0.224
250B	Water Heater	Bradford White	RG250T6N	PK40257663	0.040
250B	Heat/Cool	Carrier	48TMD025---511BA	4607U34644	0.360

Attachment 2 – List of Diesel/Natural Gas Boilers

List of Diesel/Natural Gas Boilers

Bldg	EU	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
1301	RB112	Boiler	Fulton	VMP-60	TBD	2.392
1301	RB113	Boiler	Fulton	VMP-60	TBD	2.392
1301	RB114	Boiler	Fulton	VMP-60	TBD	2.392

Attachment 3 – List Propone Boilers

List of Propane Boilers Less than 1 MMBtu/hr

Bldg	Description	Manufacturer	Model Number	Serial Number	Input Rating (MMBtu/hr)
10439	Boiler	Ajax Boiler Inc.	WFG250	55921	0.250

Attachment 4 – List of Revised Conditions

Permit Condition	Requested Change
IV.C.8	Update permit condition IV.C.8 to reflect it is only applicable to EUs RB065a and RB659. EUs RB0655 through RB0658 are air handlers, not boilers or water heaters, and therefore do not require a burner efficiency test. For clarity, revise condition to state, "The permittee shall conduct burner efficiency tests in accordance with the manufacturer's O&M manual and good combustion practices. Alternative methods may be used upon Control Officer approval (Emission Units: RB065a and RB659)."
IV.C.9	Update permit condition IV.C.9 to reflect it is only applicable to EUs RB065a and RB659. RB0655 through RB0658 are air handlers, not boilers or water heaters, and therefore do not require a burner efficiency test. For clarity, revise condition to state, "The permittee shall perform a burner efficiency test once each calendar year (Emission Units: RB065a and RB659)."
IV.C.10	Update permit condition IV.C.10 to reflect it is only applicable to EUs RB065a and RB659. RB0655 through RB0658 are air handlers, not boilers or water heaters, and therefore do not require a burner efficiency test. For clarity, revise condition to state, "The permittee shall not have to perform a burner efficiency test if the actual hours of operation are 0. To exercise this option, the permittee must install an hour meter and begin keeping written records before the start of the calendar year (Emission Units: RB065a and RB659)."
V.B.1.c	Revise permit condition V.B.1.c to remove G038 as this unit shall comply with 40 CFR 60 IIII Table 1 which is not reflective of Table V-B-2. For clarity, revise condition to state, "The diesel engines (EUs: G035a, ~~**G038,**~~ G047, G064, G067, G068, G069, G073, G077, G080, G081, G084 through G086, G090 through G092, G094, G097, G102, G121, G124, G129, G130 through G132, G136, G137, G139, G142, G149, G154, G157, G160 through G163, and A076) shall comply with the emission standards set forth in 40 CFR 89.112 and 40 CFR 89.113 for new nonroad CI engines for the same model year and maximum engine power (40 CFR 60.4204 and 40 CFR 60.4205). The emission standards are provided in Table V-B-2:"
V.E.1.b	Revise permit condition V.E.1.b to remove reference to the date as a monitoring required for IC monitoring. For clarity, revise condition to state, "~~date,~~ duration of operation, and type of fuel consumed by each of the internal combustion engines for emergency use, including documentation justifying use during the emergency."

Table VIII-B-4	Revise the column for "Throughput (tons/hour)" listed in Table VIII B-4 to reflect the requested hourly throughput limit increase of **300** tons/hour. This impacts the following EUs: A034, A035, A036, A037, A038, A019, A020, A024, A025, A026, A069, A071, A075, A078, A079, A080, A081, A081a, A081b, A081c, A081d, A082, A082a, A082b, A082c, A082d, A082e, A082f, A083, A083a, A083b, A083c, and A083d.
VIII.B.2.d	Revise permit condition VIII. B.2.d to incorporate the increased tons/hour throughput limit. For clarity, revise condition to state, "The permittee shall limit the production at aggregate facility (EUs: A019, A020, A024 through A027, A034 through A039, A069, A070, A071, A075, and A078 through A83d) to produce **300** ~~**200**~~ tons of material per hour and 100,000 tons of material in any consecutive 12-months. [NSR ATC/OP 114, Modification 46, Revision 1 (11/17/08) and Applications for Minor Revision of Part 70 OP (07/16/14), (07/29/15), (04/16/18), (04/17/19), and Application for ATC (7/18/19)]."
XI	Remove Section XI conditions from the permit. As part of this current application, no new incinerator EUs are proposed to be added to the permit and the only existing permitted Incinerator, EU H001, is being requested for removal in this application.