

CLARK COUNTY
DEPARTMENT OF AIR QUALITY
4701 W. Russell Road, Suite 200, Las Vegas, Nevada 89118

Part 70 Operating Permit

Source: 825

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

ISSUED TO: MGM RESORTS INTERNATIONAL

SOURCE LOCATIONS:

MGM Grand, 3799 South Las Vegas Blvd
New York-New York, 3790 South Las Vegas Blvd
Monte Carlo, 3770 Las Vegas Blvd South
The Signature at MGM Grand, 145 East Harmon Ave
Mandalay Bay, 3950 South Las Vegas Blvd
The Four Seasons, 3960 South Las Vegas Blvd
Luxor, 3900 South Las Vegas Blvd
Excalibur, 3850 South Las Vegas Blvd
Bellagio, 3600 South Las Vegas Blvd
CityCenter, 3780 South Las Vegas Blvd
T21S, R61E, Sections 20 and 21
Hydrographic Basin Number: 212

COMPANY ADDRESS:

840 Grier Drive
Las Vegas, NV 89119

NATURE OF BUSINESS:

SIC Code 7011: Hotels and Motels
NAICS Code 721120: Casino Hotels

RESPONSIBLE OFFICIAL:

Name: Cindy Ortega
Title: Senior Vice President & Chief Sustainability Officer, Corporate
Sustainability Division – MGM RESORTS INTERNATIONAL
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ENVIRONMENTAL CONTACT:

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Phone: (702) 692-2103

Permit Issuance: September 16, 2016

Expiration Date: September 15, 2021

ISSUED BY: CLARK COUNTY DEPARTMENT OF AIR QUALITY



Richard D. Beckstead
Permitting Manager, Department of Air Quality

EXECUTIVE SUMMARY

MGM RESORTS INTERNATIONAL (MGM) is located in Clark County, Nevada, on Las Vegas Boulevard. The Permittee is a major source located in Hydrographic Area (HA) 212 (Las Vegas Valley). The Las Vegas Valley is in attainment for all regulated air pollutants. MGM has been permitted under NSR as a major source of NO_x and CO and minor for PM₁₀, PM_{2.5}, SO_x, VOC, and HAP. All of the activities and emission units at MGM are classified as Standard Industrial Code (SIC) 7011 (Hotels and Motels) and North American Industry Classification System (NAICS) Code 721120 (Casino Hotels). The emission units and activities at the MGM properties are divided among ten hotels. Emission units present at this source include natural gas boilers and water heaters, diesel-powered emergency generators and fire pumps, cooling towers, laundry facilities, woodworking and surface coating operations, gasoline storage and dispensing, two natural gas turbines, and pyrotechnic equipment.

ATC Modification 13 for the source was issued on December 31, 2009, in an effort to consolidate all previously issued authority to construct permits. MGM received the initial Part 70 Operating Permit on December 30, 2010. Since that time, MGM has submitted numerous Part 70 revision applications. The dates of these applications are listed in Section II of the Technical Support Document for this Operating Permit.

The following table identifies the source status based on the PTE of each regulated air pollutant. These PTE values are not intended to be enforced as emission limits by direct measurement unless otherwise noted in Section III of this permit.

Source-Wide PTE in Tons per Year

Pollutant	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
Source Total	91.80	91.80	737.79	328.18	4.01	68.84	22.29

The issuance of the Part 70 OP to MGM is based on the information submitted by the applicant and a technical review performed by Air Quality staff.

Pursuant to AQR 12.5, all terms and conditions in Sections I through VII in this OP are federally enforceable unless explicitly denoted otherwise.

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I. ACRONYMS

Table I.1: List of Acronyms

Acronym	Term
Air Quality	Clark County Department of Air Quality
AQR	Clark County Air Quality Regulations
AST	Aboveground Storage Tank
ATC	Authority to Construct Certificate or Authority to Construct
ATC/OP	Authority to Construct/Operating Permit
CAO	Field Corrective Action Order
CARB	California Air Resources Board
CE	Control Efficiency
CFR	United States Code of Federal Regulations
CO	Carbon Monoxide
CPI	Urban Consumer Price Index
EF	Emission Factor
EO	Executive Order
EPA	United States Environmental Protection Agency
EU	Emission Unit
GDO	Gasoline Dispensing Operation
HAP	Hazardous Air Pollutant
HP	Horse Power
HVLP	High Volume, Low Pressure
kW	kiloWatt
MMBtu	Millions of British Thermal Units
NAICS	North American Industry Classification System
NO _x	Nitrogen Oxides
NOV	Notice of Violation
NSPS	New Source Performance Standards
NSR	New Source Review
OP	Operating Permit
PM ₁₀	Particulate Matter less than 10 microns
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
scf	Standard Cubic Feet
SIC	Standard Industrial Classification
SO _x	Sulfur Oxides
TDS	Total Dissolved Solids
VOC	Volatile Organic Compound

II. GENERAL CONDITIONS

A. General Requirements

1. The Permittee shall comply with all conditions of the Part 70 Operating Permit. Any permit noncompliance may constitute a violation of the Clark County Air Quality Regulations, Nevada law, and Clean Air Act and is grounds for the following: enforcement action; permit termination; revocation and re-issuance; revision; or for denial of a permit renewal application. *[AQR 12.5.2.6(g)(1)]*
2. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid. *[AQR 12.5.2.6(f)]*
3. The Permittee shall pay all permit fees pursuant to AQR Section 18. *[AQR 12.5.2.6(h)]*
4. The permit does not convey any property rights of any sort, or any exclusive privilege. *[AQR 12.5.2.6(g)(4)]*
5. The Permittee agrees to allow inspection of the premises, to which this permit relates, by the Control Officer at any time during the Permittee's hours of operation without prior notice. The Permittee shall not obstruct, hamper or interfere with any such inspection. *[AQR 4.3.3; AQR 4.9; AQR 5.1.1; AQR 12.5.2.8(b)]*
6. The Permittee shall allow the Control Officer upon presentation of credentials to: *[AQR 4.3; AQR 12.5.2.8(b)]*
 - a. Have access to and copy any records that must be kept under the conditions of the permit;
 - b. Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
 - c. Sample or monitor substances or parameters for the purpose of assuring compliance with the permit or applicable requirements; and
 - d. Document alleged violations using devices such as cameras or video equipment.
7. Any Permittee who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, the Permittee shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit. A responsible official shall certify the additional information consistent with the requirements of AQR Section 12.5.2.4. *[AQR 12.5.2.2]*
8. The Permittee who has been issued a permit under Section 12.5 shall post such permit in a location which is clearly visible and accessible to the facility's employees and representatives of the department. *[AQR 12.5.2.6(m)]*

B. Modification, Revision, Renewal Requirements

1. No person shall begin actual construction of a New Part 70 source, or modify or reconstruct an existing Part 70 source that falls within the preconstruction review applicability criteria, without first obtaining an ATC Permit from the Control Officer. [AQR 12.4.1.1(a)]
2. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the Permittee for the permit modification, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [AQR 12.5.2.6(g)(3)]
3. A permit, permit revision, or renewal may be approved only if all of the following conditions have been met: [AQR 12.5.2.10(a)]
 - a. The Permittee has submitted to the Control Officer a complete application for a permit, permit revision, or permit renewal, except that a complete application need not be received before a Part 70 general permit is issued pursuant to Section 12.5.2.20; and
 - b. The conditions of the permit provide for compliance with all applicable requirements and the requirements of Section 12.5.
4. The Permittee shall not build, erect, install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere reduces or conceals an emission, which would otherwise constitute a violation of an applicable requirement. [AQR 80.1]
5. No permit revisions shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. [AQR 12.5.2.6(i)]
6. Permit expiration terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted. [AQR 12.5.2.11(b)]
7. For purposes of permit renewal, a timely application is a complete application that is submitted at least six (6) months and not greater than eighteen (18) months prior to the date of permit expiration. If a source submits a timely application under this provision, it may continue operating under its current Part 70 Operating Permit until final action is taken on its application for a renewed Part 70 Operating Permit. [AQR 12.5.2.1(a)(2)]

C. Notifications/Providing Information Requirements

1. The Permittee shall submit all compliance certifications to EPA and to the Control Officer. [AQR 12.5.2.8(e)(4)]
2. Any application form, report, or compliance certification submitted to the Control Officer pursuant to the permit or AQRs shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under AQR 12.5 shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [AQR 12.5.2.6(l)]

3. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by the permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the Administrator along with a claim of confidentiality. *[AQR 12.5.2.6(g)(5)]*
4. Upon request of the Control Officer, the Permittee shall provide such information or analyses as will disclose the nature, extent, quantity or degree of air contaminants which are or may be discharged by such source, and type or nature of control equipment in use, and the Control Officer may require such disclosures be certified by a professional engineer registered in the state. In addition to such report, the Control Officer may designate an authorized agent to make an independent study and report as to the nature, extent, quantity or degree of any air contaminants which are or may be discharged from source. An authorized agent so designated is authorized to inspect any article, machine, equipment, or other contrivance necessary to make the inspection and report. *[AQR 4.4]*
5. The Permittee shall submit annual emissions inventory reports based on the following: *[AQR 18.6.1]*
 - a. The annual emissions inventory must be submitted to Air Quality by March 31 of each calendar year. If the due date falls on a Saturday, Sunday, or a Federal or Nevada holiday, then the submittal is due on the next regularly scheduled business day; and
 - b. The report shall include the emission factors and calculations used to determine the emissions from each permitted emission unit, even when an emission unit is not operated.

D. Compliance Requirements

1. The Permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[AQR 12.5.2.6(g)(2)]*
2. Any person who violates any provision of this Operating Permit, including, but not limited to, any application requirement; any permit condition; any fee or filing requirement; any duty to allow or carry out inspection, entry or monitoring activities or any requirements by Air Quality is guilty of a civil offense and shall pay civil penalty levied by the Air Pollution Control Hearing Board/Hearing Officer of not more than \$10,000. Each day of violation constitutes a separate offense. *[AQR 9.1]*
3. Any person aggrieved by an order issued pursuant to AQR 9.1 is entitled to review as provided in Chapter 233B of NRS. *[AQR 9.12]*
4. The Permittee shall comply with the requirements of 40 CFR 61, Subpart M, of the National Emission Standard for Asbestos for all demolition and renovation projects. *[AQR 13.1(b)(8)]*
5. The Permittee shall certify compliance with terms and conditions contained in the Part 70 Operating Permit, including emission limitations, standards, work practices, and the means for monitoring such compliance. *[AQR 12.5.2.8(e)]*

6. The Permittee shall submit compliance certifications annually in writing to the Control Officer (4701 W. Russell Road, Suite 200, Las Vegas, NV 89118) and the Administrator at USEPA Region IX (Director, Air and Toxics Divisions, 75 Hawthorne St., San Francisco, CA 94105). A compliance certification for each calendar year will be due on January 30th of the following year and shall include the following: *[AQR 12.5.2.8(e)]*
 - a. The identification of each term or condition of the permit that is the basis of the certification;
 - b. The identification of the methods or other means used by the Permittee for determining the compliance status with each term and condition during the certification period. The methods and means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements described in this permit. If necessary, the Permittee shall also identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information; and
 - c. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous, intermittent, or not in compliance. The certification shall be based on the methods or means designated in subsection II.D.5(b). The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify, as possible exceptions to compliance, any periods during which compliance is required and in which an excursion or exceedance, as defined under 40 CFR Part 64.1, occurred.
7. The Permittee shall report to the Control Officer (4701 W. Russell Road, Suite 200, Las Vegas, NV 89118) any startup, shutdown, malfunction, emergency or deviation which cause emissions of regulated air pollutants in excess of any limits set by regulation or by this permit. The report shall be in two parts as specified below: *[AQR 12.5.2.6(d)(4)(B); AQR 25.6.1]*
 - a. within twenty-four (24) hours of the time the Permittee learns of the excess emissions, the report shall be communicated by phone (702) 455-5942, fax (702) 383-9994, or email: airquality@clarkcountynv.gov; and
 - b. within seventy-two (72) hours of the notification required by paragraph (a) above, the detailed written report containing the information required by AQR Section 25.6.3 shall be submitted.
8. The Permittee shall report to the Control Officer with the semi-annual monitoring report all deviations from permit conditions that do not result in excess emissions, including those attributable to malfunction, startup, or shutdown. Reports shall identify the probable cause of each deviation and any corrective actions or preventative measures taken. *[AQR 12.5.2.6(d)(4)(B)]*
9. The owner or operator of any source required to obtain a permit under Section 12 shall report to the Control Officer emissions that are in excess of an applicable requirement or emission limit that pose a potential imminent and substantial danger to public health, safety or the environment as soon as possible, but in no case later than twelve (12) hours after the deviation is discovered, with a written report submitted within two (2) days of the occurrence. *[AQR 25.6.2]*

E. Performance Testing Requirements

1. Upon request of the Control Officer, the Permittee shall test or have tests performed to determine the emissions of air contaminants from any source whenever the Control Officer has reason to believe that an emission in excess of that allowed by the Air Quality regulations is occurring. The Control Officer may specify testing methods to be used in accordance with good professional practice. The Control Officer may observe the testing. All tests shall be conducted by reputable, qualified personnel. *[AQR 4.5]*
2. Upon request of the Control Officer, the Permittee shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants. *[AQR 4.6]*
3. The Permittee shall submit for approval a performance testing protocol which contains testing, reporting, and notification schedules, test protocols, and anticipated test dates to the Control Officer (4701 W. Russell Road, Suite 200, Las Vegas, NV 89118) not less than 45, nor more than 90 days prior to the anticipated date of the performance test, unless otherwise specified in Sections III.A.6, III.C.6, III.E.6, III.G.6, III.I.6, or III.J.6. *[AQR 12.5.2.8]*
4. For sources subject to 40 CFR Part 60, the Permittee shall submit to EPA for approval any alternative test methods that are not already approved by EPA, to demonstrate compliance with a requirement under 40 CFR Part 60. *[40 CFR 60.8(b)]*
5. The Permittee shall submit a report describing the results of each performance test to the Control Officer within 60 days from the end of the performance test. *[AQR 12.5.2.8]*

F. Reporting Requirements

1. The Permittee shall submit semi-annual monitoring reports to Air Quality based on the following requirements. *[AQR 12.5.2.6(d)]*
 - a. The report shall include a semi-annual summary of each items listed in Recordkeeping Section of each hotel facility.
 - b. The report shall be based on six calendar months, which includes partial calendar months.
 - c. The report shall be received by Air Quality within 30 calendar days after the reporting period.
2. The Control Officer reserves the right to require additional reports and reporting to verify compliance with permit conditions, permit requirements, and requirements of applicable federal regulations. *[AQR 4.4 and AQR 12.5.2.6(d)]*

Table II.F.1: Summary of Required Submission Dates for Various Reports

Required Report	Applicable Period	Due Date
Semi-annual Report for 1st Six-Month Period	January, February, March, April, May, June	July 30 each year ¹
Semi-annual Report for 2 nd Six-Month Period, Any additional annual records required.	July, August, September, October, November, December	January 30 each year ¹

Required Report	Applicable Period	Due Date
Annual Compliance Certification Report	Calendar Year	January 30 each year ¹
Annual Emission Inventory Report	Calendar Year	March 31 each year ¹
Excess Emission Notification	As Required	Within 24 hours of the time the Permittee first learns of the excess emissions
Excess Emission Report	As Required	Within 72 hours of the notification
Deviation Report	As Required	Along with semi-annual reports ¹
Performance Test Report	As Required	Within 60 days from the end of the test ¹

¹If the due date falls on a Saturday, Sunday or a Federal or Nevada holiday, then the submittal is due on the next regularly scheduled business day.

III. EMISSION UNITS AND APPLICABLE REQUIREMENTS

[Authority for all values, limits, and conditions in this section, unless otherwise noted: 825 NSR ATC/OP Modification 6 (11/29/04) through Modification 13, Revision 1, (12/31/09); 825 NSR ATC (10/21/13); 369 NSR ATC/OP Modification 1 (09/11/02); 74 NSR ATC/OP Modification 1 (11/15/04); 15615 NSR ATC/OP Modification 0 (08/15/05); 737 NSR ATC/OP Modification 4 (04/29/04); 805 NSR ATC/OP Modification 0 (11/22/99); 609 NSR ATC/OP Modification 1 (03/03/02); 756 NSR ATC/OP Modification 1 (01/07/05); and Minor Title V Revisions (00825_20120607_APP and 00825_20120913_APP) incorporated into the Title V]

A. MGM GRAND

1. Emission Units

- a. The stationary source covered by the Part 70 OP consists of the emission units and associated appurtenances summarized in Table III.A.1.a. *[825 NSR ATC/OP Modification 5 (7/18/00), 825 NSR ATC/OP Modification 6 (11/29/04), 825 ATC Modification 13 (12/31/09), 737 ATC Modification 3 (01/10/03), 737 ATC Modification 4 (04/29/04), Minor Title V Revisions (00825_20120607_APP and 00825_20120913_APP) incorporated into the Title V, Title V Applications (00825_T5_R00_20080523_SUP-2, 00825_20121220_APP, and 00825_20130606_APP) incorporated into the Title V]*

Table III.A.1.a: Summary of Emission Units – MGM Grand

EU	Rating	Type	Manufacturer	Model No.	Serial No.
MG02	2.0 MMBtu/hr	Boiler	Envirotech	N/A	1110
MG04	4.0 MMBtu/hr	Boiler	Unilux	ZF400	1999
MG05	4.0 MMBtu/hr	Boiler	Unilux	ZF400	2000
MG06	4.0 MMBtu/hr	Boiler	Unilux	ZF400	2013
MG13	32.66 MMBtu/hr	Boiler	Cleaver Brooks	CBLE700-800- 200	OL097510
MG14	32.66 MMBtu/hr	Boiler	Cleaver Brooks	CBLE700-800- 200	OL096895

EU	Rating	Type	Manufacturer	Model No.	Serial No.
MG15	32.66 MMBtu/hr	Boiler	Cleaver Brooks	CBLE700-800- 200	OL096896
MG16	16.33 MMBtu/hr	Boiler	Cleaver Brooks	CBLE700-800- 200	OL096897
MG17	2,520 hp	Diesel Emergency Generator	Caterpillar	3516TA	25Z02910
MG18	2,520 hp	Diesel Emergency Generator	Caterpillar	3516TA	25Z02931
MG19	2,520 hp	Diesel Emergency Generator	Caterpillar	3516TA	25Z02927
MG20	2,520 hp	Diesel Emergency Generator	Caterpillar	3516TA	25Z02913
MG21	2,520 hp	Diesel Emergency Generator	Caterpillar	3516TA	25Z02929
MG22	2,520 hp	Diesel Emergency Generator	Caterpillar	3516TA	25Z02932
MG23	2,520 hp	Diesel Emergency Generator	Caterpillar	3516TA	25Z02916
MG24	208 hp	Diesel Fire Pump	Cummins	6BTA5.9-F1	44802838
MG25	515 hp	Diesel Fire Pump	Clark Detroit Allison	DDFP- L8FA8176V	8VF-155265
MG26	412 hp	Diesel Fire Pump	Detroit Allison	DDFP-06FA- 8175	6VF-199592
MG27	196 hp	Diesel Fire Pump	Caterpillar	3208DIT	03Z16779
MG28	183 hp	Diesel Fire Pump	Detroit Allison	PDPF- 06YR2531F	U719491F
MG29	15'x25'	Spray Booth	Goldwest	2450	1568
MG30	18,000 gpm	Cooling Tower	Baltimore Aircoil	4469-20-3W	92-4G-6184
MG31	18,000 gpm	Cooling Tower	Baltimore Aircoil	4469-20-3W	92-4G-6184
MG32	18,000 gpm	Cooling Tower	Baltimore Aircoil	4469-20-3W	92-46-6393
MG33	N/A	Solvent Degreasing			
MG34	2.0 MMBtu/hr	Boiler	Patterson- Kelley	NM-2000	CR46-05-28834
MG35	2.0 MMBtu/hr	Boiler	Patterson- Kelley	NM-2000	CR46-05-28833
MG39	98" x 120" x	Spray Booth	McMaster-	7899T96	

EU	Rating	Type	Manufacturer	Model No.	Serial No.
	110"		Carr		
MG40	74" x 41" x 38"	Spray Booth	McMaster-Carr	7866T83	
MG43		Pyrotechnics			
MG44		Carpentry Shop with Dust Collector	Donaldson Torit	30 CYC	IG903561
MG45		Carpentry Shop with Dust Collector	Dust Hog	C200	60031958
MG46	3,000 gallons	Aboveground Storage Tank	Ace Tank & Equipment		
MG49	2.0 MMBtu/hr	Boiler	Raypak	WH1-0401	602247052
MG50	2.0 MMBtu/hr	Boiler	Raypak	WH1-0401	602247051
MG51	149 hp	Fire Pump	Clarke	JU6H-UF68	PF6068T701042
MG52	20.0 MMBtu/hr	Boiler	Unilux	ZF2000W	2811
MG53	20.0 MMBtu/hr	Boiler	Unilux	ZF2000W	2810
MG54	6.00 MMBtu/hr	Boiler	Aerco	BMK6000	H-12-2201

2. Emission Limitations

- b. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.A.2.a. [825 NSR ATC/OP Modification 5 (7/18/00), 825 NSR ATC/OP Modification 6 (11/29/04), 825 ATC Modification 13 (12/31/09), 737 ATC Modification 3 (01/10/03), 737 ATC Modification 4 (04/29/04), Minor Title V Revisions (00825_20120607_APP and 00825_20120913_APP) incorporated into the Title V, Title V Applications (00825_T5_R00_20080523_SUP-2 and 00825_20121220_APP) incorporated into the Title V]

Table III.A.2.a: PTE (tons per year) – MGM Grand

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
MG02	2.0 MMBtu/hr	0.07	0.07	0.43	0.72	0.01	0.05	0.02
MG04	4.0 MMBtu/hr	0.13	0.13	0.86	1.44	0.01	0.09	0.03
MG05	4.0 MMBtu/hr	0.13	0.13	0.86	1.44	0.01	0.09	0.03
MG06	4.0 MMBtu/hr	0.13	0.13	0.86	1.44	0.01	0.09	0.03
MG13	32.66 MMBtu/hr	1.07	1.07	6.95	11.74	0.09	0.77	0.26
MG14	32.66 MMBtu/hr	1.07	1.07	6.95	11.74	0.09	0.77	0.26
MG15	32.66 MMBtu/hr	1.07	1.07	6.95	11.74	0.09	0.77	0.26
MG16	16.33 MMBtu/hr	0.53	0.53	3.47	5.87	0.04	0.39	0.13
MG17	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
MG18	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
MG19	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
MG20	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
MG21	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
MG22	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
MG23	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
MG24	208 hp	0.11	0.11	1.61	0.35	0.01	0.13	0.01
MG25	515 hp	0.28	0.28	3.99	0.86	0.01	0.32	0.01
MG26	412 hp	0.23	0.23	3.19	0.69	0.01	0.26	0.01
MG27	196 hp	0.11	0.11	1.52	0.33	0.01	0.12	0.01
MG28	183 hp	0.10	0.10	1.42	0.31	0.01	0.12	0.01
MG29	5.00 lb/gal	0.01	0.01	0.00	0.00	0.00	1.20	0.56
MG30	18,000 gpm	7.28	7.28	0.00	0.00	0.00	0.00	0.00
MG31	18,000 gpm	7.28	7.28	0.00	0.00	0.00	0.00	0.00
MG32	18,000 gpm	1.12	1.12	0.00	0.00	0.00	0.00	0.00
MG33	6.80 lbs/gal VOC	0.00	0.00	0.00	0.00	0.00	2.24	2.24
MG34	2.0 MMBtu/hr	0.07	0.07	0.32	0.65	0.01	0.05	0.02
MG35	2.0 MMBtu/hr	0.07	0.07	0.32	0.65	0.01	0.05	0.02
MG39	6.84 lb/gal	0.01	0.01	0.00	0.00	0.00	6.84	3.21
MG40	6.84 lb/gal	0.01	0.01	0.00	0.00	0.00	2.05	0.96
MG43	6.70 lb/show	0.18	0.18	0.00	0.14	0.00	0.00	0.02
MG44	2 lb/hr	0.01	0.01	0.00	0.00	0.00	0.00	0.00
MG45	2 lb/hr	0.01	0.01	0.00	0.00	0.00	0.00	0.00
MG46	3,000 gal	0.00	0.00	0.00	0.00	0.00	1.55	0.01
MG49	0.399 MMBtu/hr	0.01	0.01	0.12	0.14	0.01	0.01	0.01
MG50	0.399 MMBtu/hr	0.01	0.01	0.12	0.14	0.01	0.01	0.01
MG51	149 hp	0.08	0.08	1.15	0.25	0.01	0.09	0.01
MG52	20.0 MMBtu/hr	0.65	0.65	3.19	3.24	0.05	0.47	0.17
MG53	20.0 MMBtu/hr	0.65	0.65	3.19	3.24	0.05	0.47	0.17
MG54	6.00 MMBtu/hr	0.20	0.20	1.29	2.16	0.02	0.14	0.05

- c. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.A.2.b. [825 NSR ATC/OP Modification 5 (07/18/00) and 825 NSR ATC Modification 13 (12/31/09)]

Table III.A.2.b: PTE (pounds per hour) – MGM

EU	Rating	NO _x	CO
MG13	32.6 MMBtu/hr	1.59	2.68
MG14	32.6 MMBtu/hr	1.59	2.68
MG15	32.6 MMBtu/hr	1.59	2.68
MG16	16.33 MMBtu/hr	0.79	1.34
MG52	20.0 MMBtu/hr	0.73	0.74
MG53	20.0 MMBtu/hr	0.73	0.74

- d. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. *[AQR 26.1.1]*

3. Operational Limitations

- a. The Permittee shall limit the operation of the emergency generators and fire pump (EUs: MG17 through MG28 and MG51) for testing and maintenance purposes to 100 hours per calendar year. The Permittee may operate the emergency generators up to 50 hours per calendar year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. The 50 hours per calendar year for nonemergency situations cannot be used for peak shavings or to generate income for the facility. *[40 CFR 63.6640(f)(1)]*
- b. The Permittee shall limit the consumption of VOC containing paint strippers, paints, basecoats, primers, reducers, thinners, solvents, etc., to 480 gallons per any consecutive 12-months, based on a weighted average VOC content of 5.00 pounds per gallon in the Goldwest booth (EU: MG29). *[825 NSR ATC/OP Modification 6 (11/29/04) Condition III-A-7]*
- c. The Permittee shall limit the consumption of solvent in the degreasing operations to 660 gallons per any consecutive 12-months (EU: MG33). *[825 NSR ATC/OP Modification 6 (11/29/04) Condition III-A-9]*
- d. The Permittee shall limit the consumption of VOC containing paint strippers, paints, basecoats, primers, reducers, thinners, solvents, etc., to 2,000 gallons per any consecutive 12-months, based on a weighted average VOC content of 6.84 pounds per gallon in the first McMaster-Carr booth (EU: MG39). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-A-3-a]*
- e. The Permittee shall limit the consumption of VOC containing paint strippers, paints, basecoats, primers, reducers, thinners, solvents, etc., to 600 gallons per any consecutive 12-months, based on a weighted average VOC content of 6.84 pounds per gallon in the second McMaster-Carr booth (EU: MG40). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-A-3-b]*
- f. The Permittee shall limit the use of pyrotechnics to 3,191.3 pounds per any consecutive 12-months (EU: MG43). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-A-3-c]*
- g. The Permittee shall operate the two dust collectors at all times PM₁₀ is emitted during the use of the respective shop and shall be limited to 1,200 hours per year for each dust collector (EUs: MG44 and MG45). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-A-3-d]*
- h. The Permittee shall limit the amount of throughput (aggregate of all gasoline products) to 99,000 gallons per any consecutive 12-months (EU: MG46). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-A-3-e]*

4. Control Requirements

Boilers/Water Heaters

- a. The Permittee shall combust only natural gas in all boilers and water heaters. *[825 NSR ATC/OP Modification 5 (07/18/00) Condition III-B-1]*
- b. The Permittee shall operate and maintain all boilers and water heaters in accordance with the manufacturer's specifications. *[825 NSR ATC/OP Modification 5 (07/18/00) Condition III-B-2]*

- c. The Permittee shall operate the Envirotech boiler with burners rated for maximum emission rates of 40 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EU: MG02). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- d. The Permittee shall operate each of the three Unilux boilers with burners rated for maximum emission rates of 40 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EUs: MG04 through MG06). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- e. The Permittee shall operate each of the four Cleaver Brooks boilers with burners rated for maximum emission rates of 40 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EUs: MG13 through MG16). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- f. The Permittee shall operate each of the seven Patterson Kelley boilers with burners rated for maximum emission rates of 30 ppmv NO_x and 100 ppmv CO, corrected to three percent oxygen (EUs: MG34 and MG35). *[825 NSR ATC Modification 13 (11/30/2009) Condition IV-A-2-c]*
- g. The Permittee shall operate each of the two Raypak boilers with burners rated for maximum emission rates of 55 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EUs: MG49 and MG50). *[825 NSR ATC Modification 13 (11/30/2009) Condition IV-A-2-d]*
- h. The Permittee shall operate each of the two 20.0 MMBtu/hr Unilux boilers with burners rated for maximum emission rates of 30 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EUs: MG52 and MG53). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

Diesel Generators/Fire Pumps

- i. The Permittee shall operate and maintain all diesel generators and fire pumps in accordance with the manufacturer's specifications (EUs: MG17 through MG28 and MG51). *[825 NSR ATC/OP Modification 5 Condition III-B-4, 825 NSR ATC/OP Modification 6 (11/29/04) Condition III-B-9, and Minor Title V Revision (00825_20120913_APP) incorporated into the Title V]*
- j. The Permittee shall combust only diesel fuel in the diesel generators and fire pumps (EUs: MG17 through MG28 and MG51). *[40 CFR 63, Subpart ZZZZ (63.6604)]*
- k. The Permittee shall operate the diesel emergency generators with turbochargers and aftercoolers (EUs: MG17 through MG23). *[825 NSR ATC/OP Modification 5 Condition III-B-5 and 825 NSR ATC/OP Modification 6 (11/29/04) Condition III-B-8]*
- l. The Permittee shall operate the fire pumps with turbochargers (EUs: MG24 through MG28). *[Title V Renewal (00825_20150629_APP) incorporated into the Title V]*

Cooling Towers

- m. The Permittee shall operate each of the two of the Baltimore Aircoil cooling towers with drift eliminators with a manufacturer's drift rate of 0.013 percent (EUs: MG30 and MG31). *[825 NSR ATC/OP Modification 6 (11/29/04) Condition III-B-10]*
- n. The Permittee shall operate the Baltimore Aircoil cooling towers with drift eliminators with a manufacturer's drift rate of 0.002 percent (EU: MG32). *[825 NSR ATC/OP Modification 6 (11/29/04) Condition III-B-10]*

- o. The Permittee shall not allow the TDS content of each the cooling tower circulation water to exceed 3,000 ppm for each of the Baltimore Aircoil cooling towers (EUs: MG30 through MG32). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

Surface Coating

- p. The Permittee shall not operate spray booths unless all exhaust air passes through appropriate filter media having a particulate capture efficiency of at least 99.0 percent. This is accomplished with tacky filter material that is at least 2 inches thick. The dry filter media must cover all openings in the spray booth. *[825 NSR ATC/OP Modification 6 (11/29/04) Condition III-B-14]*
- q. The Permittee shall use only closed containers for storage or disposal of VOC or HAP-containing cloth or paper (excluding masking tape) used for surface preparation and cleanup. *[825 NSR ATC/OP Modification 6 (11/29/04) Condition III-B-15]*
- r. All filters or other control equipment associated with surface coating operations shall follow manufacturer's specifications for use and operation. Dry filters must be changed at sufficient intervals to prevent a decrease in their effectiveness and prevent them from clogging. *[825 NSR ATC/OP Modification 6 (11/29/04) Condition III-B-18]*
- s. The Permittee shall use a manometer (or equivalent) to monitor the pressure drop across the spray booth filters. The filters should be replaced when the pressure drop exceeds 0.25 inches of water (6.35 millimeters of water), unless the manufacturer's specifications indicate a different pressure drop value. *[825 NSR ATC/OP Modification 6 (11/29/04) Condition III-B-19]*
- t. The Permittee shall clean surface coating application equipment in an enclosed container to minimize VOC volatilization into the ambient air. *[825 NSR ATC/OP Modification 6 (11/29/04) Condition III-B-20]*
- u. All containers with VOC-containing products shall remain securely closed, except during product transfer. Containers shall be inspected regularly for leakage and the contents of any leaking container must be immediately transferred to an appropriately labeled container that has been specifically designed for storage of the compound. *[825 NSR ATC/OP Modification 6 (11/29/04) Condition III-B-21]*
- v. The Permittee shall employ good housekeeping practices to prevent the accumulation and/or dispersal of particulate matter from sanding, blasting, surface preparation, etc. carried out in conjunction with surface coating operations. No more than 0.25 inches of particulate matter shall accumulate on surrounding surfaces at any time. *[825 NSR ATC/OP Modification 6 (11/29/04) Condition III-B-17]*

Woodworking

- w. The Permittee shall operate the Donaldson Torit Cyclone and the Dust Hog baghouse dust collectors at all times, during all cutting, sanding, blasting, and surface preparation, to maintain 99% control efficiency for PM₁₀ emissions (EUs: MG44 and MG45). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-A-4-a and b]*

Gasoline Storage/Dispensing

- x. The Permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Preventative measures to be taken include, but are not limited to, the following: *[40 CFR 63.11116]*

- i. Minimize gasoline spills.
 - ii. Clean up spills as expeditiously as practicable.
 - iii. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use.
 - iv. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
- y. The Permittee shall install, maintain and operate a Phase I Vapor Recovery System on all storage tanks that meets the following requirements: [AQR 12.5.2.6]
- i. The Phase I vapor recovery system shall be rated with at least 95.0 percent control efficiency when in operation. This system shall be certified by an industry recognized certification body, i.e., California Air Resources Board (CARB) or equivalent.
 - ii. The Phase I vapor recovery system shall be a dual-point vapor balance system, as defined by 40 CFR 63.11132, in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.
 - iii. All Phase I vapor recovery equipment shall be installed, maintained and operated in accordance with the manufacturer's specifications and certification requirements.
 - iv. All vapor connections and lines on storage tanks shall be equipped with closures that seal upon disconnect.
 - v. The vapor line from the gasoline storage tanks to the gasoline cargo tank shall be vapor-tight, as defined in 40 CFR 63.11132.
 - vi. The vapor balance system shall be designed such that the pressure in the cargo tank does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.
 - vii. The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.
 - viii. If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the tank as the fill tube.
 - ix. Liquid fill connections for all systems shall be equipped with vapor-tight caps.
 - x. A pressure/vacuum (PV) vent valve on each gasoline storage tank system shall be installed, maintained and operated in accordance with the manufacturer's specifications. The pressure specifications for PV vent valves shall comply with:
 1. a positive pressure setting of 2.5 to 6.0 inches of water, and a negative pressure setting of 6.0 to 10.0 inches of water; and
 2. the total leak rate of all PV vent valves at the affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water. [AQR 12.5.2.6]
 - xi. The vapor balance system shall be capable of meeting the static pressure performance requirement in 40 CFR 63, Subpart CCCCCC, Table 1, Part 1 and comply with the equation: $P_f = 2e^{-500.887/V}$

- z. Cargo tanks unloading at the source must comply with management practices as follows: *[AQR 12.5.2.6]*
- i. All hoses in the vapor balance system are properly connected.
 - ii. The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect.
 - iii. All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight.
 - iv. All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank.
 - v. All hatches on the tank truck are closed and securely fastened.
 - vi. The filling of storage tanks shall be limited to unloading from vapor-tight gasoline cargo tanks with documentation carried onboard that it has met the specifications of EPA Method 27.

5. Monitoring

Boilers/Water Heaters

- a. The Permittee shall install and utilize non-resettable hour meters such that the monthly consumption of natural gas can be established for each applicable boiler (EUs: MG13 through MG16, MG52, and MG53). *[AQR 12.5.2.6(d) and 40 CFR 60, Subpart Dc]*

Burner Efficiency Tests

- b. The Permittee operating a boiler with a maximum heat input rating equal to or greater than 4.0 MMBtu/hr but less than 10.0 MMBtu/hr shall perform a burner efficiency test at least once each calendar year. Burner efficiency tests shall be conducted in accordance with the manufacturer's specifications and specifications for good combustion practices (EUs: MG04 through MG06 and MG54). *[AQR 12.5.2.6(d)]*
- c. The Permittee operating a boiler with a maximum heat input rating of 10.0 MMBtu/hr or greater shall perform burner efficiency tests at least twice each year. The tests shall be performed at least five (5) months but no more than seven (7) months apart during each calendar year (EUs: MG13 through MG16, MG52, and MG53). *[AQR 12.5.2.6(d)]*
- d. The Permittee may choose not to perform a burner efficiency test on that boiler during that calendar year if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 4.0 MMBtu/hr, are zero (0) during a calendar year. *[AQR 12.5.2.6(d)]*
- e. The Permittee may perform a burner efficiency test on that boiler only once during that calendar year if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 10.0 MMBtu/hr, are less than 50 hours during a calendar year. *[AQR 12.5.2.6(d)]*
- f. A performance test may replace a required burner efficiency test upon approval by the Control Officer. *[AQR 12.5.2.6(d)]*
- g. The results from burner efficiency testing shall not be used to determine an emission unit's compliance status with its corresponding emission limit(s). *[AQR 12.5.2.6]*

Diesel Generators/Fire Pumps

- h. The Permittee shall operate each emergency generator/fire pump with a non-resettable hour meter and monitor the duration of operation for testing, maintenance and non-emergency operation, and separately for emergencies. The nature of the emergency leading to emergency operation shall be documented (EUs: MG17 through MG28 and MG51). [AQR 12.5.2.6(d)]

Surface Coating

- i. The Permittee shall inspect spray paint booth and all ancillary equipment for leaks, malfunctions, proper operation of gauges and pressure drops each month the booth is operated, and perform appropriate maintenance as needed. A log must be kept of all inspections as well as any corrective actions taken to repair the equipment. [AQR 12.5.2.6(d)]

Gasoline Storage/Dispensing

- j. The Permittee shall conduct monthly inspections associated with the Phase I vapor recovery system to determine if components of the system are defective. [AQR 12.5.2.6(d)]

Visible Emissions

- k. The Permittee shall perform visual emissions checks each calendar quarter on a source-wide level for each diesel-fired emission unit and emitting activity to demonstrate compliance with the opacity limit. If any diesel-fired emission unit or emitting activity does not operate during the calendar quarter, then no observation of that unit or activity shall be required. If visible emissions that appear to exceed the opacity limit(s) are observed, corrective actions shall be taken to minimize the emissions, and, if practicable, the opacity of emissions shall be visually determined in accordance with 40 CFR 60 Appendix A: Reference Method 9. [AQR 12.5.2.6(d)]

Cooling Towers

- l. The Permittee shall monitor the TDS of each cooling tower recirculation water, monthly, using a conductivity meter, or other device approved in advance by the Control Officer (EUs: MG30 through MG32). [AQR 12.5.2.6(d)]

6. Testing

Boiler/ Water Heater Performance Tests

- a. Performance testing shall be performed following the procedures provided under 40 CFR 60 (as amended). Performance testing shall be the instrument for determining compliance with emission limitations set forth in this permit for all boilers that have a heat input rating equal to or greater than 10.0 MMBtu/hr (EUs: MG13 through MG16, MG52, and MG53). [AQR 12.5.2.6(d)]
- b. Subsequent performance testing shall be conducted at a frequency of no later than once every 5 years from the previous performance test on that boiler. Subsequent performance testing shall be conducted on emission units MG13 through MG16, MG52, and MG53. [AQR 12.5.2.6(d)]
- c. Performance testing for the applicable boilers shall comply with the testing protocol requirements identified in Table III.A.6.c: [AQR 12.5.2.6(d)]

Table III.A.6.c: Performance Testing Protocol Requirements

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

Note: 40 CFR Part 60, Subpart Dc applies to specific combustion units at this facility.

Gasoline Storage/Dispensing

- d. The Permittee shall conduct Phase I vapor recovery tests in accordance with the California Air Resources Board (CARB)-approved vapor recovery test procedures (as revised) listed in Table III.A.6.j. [AQR 12.5.2.6(d)]
- e. The Permittee shall schedule each vapor recovery test with the Stationary Sources Compliance Supervisor at least 30 calendar days prior to the anticipated date of testing, unless otherwise specified in this permit. [AQR 12.5.2.6(d)]
- f. Any prior approved scheduled vapor recovery system test cannot be canceled and/or rescheduled except with the prior approval of the Control Officer, Compliance Division. [AQR 12.5.2.6(d)]
- g. The Permittee shall conduct Phase I Vapor Recovery System Testing on affected GDO equipment according to the following requirements: [AQR 12.5.2.6(d)]
 - i. The Permittee shall conduct and pass an initial vapor recovery system test within 30 days of startup of new equipment, or when the integrity of the vapor recovery system has been affected by a modification or repair. Routine maintenance, including the replacement of hoses, nozzles and ECD, does not require an initial vapor recovery system test.
 - ii. The Permittee shall conduct and pass subsequent Phase I vapor recovery system tests on or before the anniversary date of the initial performance test at the frequency specified in Table III.A.6.j.
 - iii. Each vapor recovery system test may be witnessed by an inspector from Air Quality.
- h. The Permittee shall submit the GDO Test Results Submittal Form for a Gasoline Dispensing Operation (available on Air Quality’s website) to the Control Officer after each vapor recovery system test. The submittal form shall meet the following conditions: [AQR 12.5.2.6(d)]
 - i. The test results shall be complete and signed by the Responsible Official for the equipment being tested. The Responsible Official must certify that the test results are true, accurate and complete.
 - ii. Test results shall be submitted by regular mail, fax, or in person.
 - iii. The test report shall be submitted by the source or by the Permittee’s testing company or consultant, but the source is the responsible party and must ensure that the test report is delivered to Air Quality within the above timeline.
- i. If the source passes the vapor recovery system test, the Permittee shall submit the test results report to the Control Officer within 30 days from the date of the vapor recovery system test. [AQR 12.5.2.6(d)]
- j. If the source fails a vapor recovery system test, the Permittee shall comply with the following: [AQR 12.5.2.6(d)]

- i. The Permittee shall notify the Control Officer within 24 hours of equipment test failure, make all necessary repairs and re-test the affected facility. After re-testing, the Permittee shall notify the Control Officer to advise of the re-test and submit test results within 15 days of completion.
- ii. The process of re-testing shall continue until the affected facility successfully passes all aspects of the vapor recovery system test.
- iii. The Control Officer may require the Permittee to conduct any previously required test after a failed vapor recovery system test in the presence of an Air Quality representative.

Table III.A.6.j: Vapor Recovery System Testing Procedures and Schedules

Type of Vapor Recovery System	Test Procedure	Frequency
Phase I Vapor Balance System	Pressure Decay/Leak test: CARB Procedure TP201.3B	Initial and every three years thereafter
	Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves: CARB Procedure TP-201.1E (as revised)	Initial and every three years thereafter

- k. The source shall implement changes to the existing vapor recovery system if any performance test results indicate such changes are necessary to maintain compliance with this permit.

7. Record Keeping

- a. The Permittee shall maintain records on site that include, at minimum, the following information: *[AQR 12.5.2.6(d)]*
 - i. monthly amount of natural gas consumed (in MMBtu, scf, or therms) for each boiler (EUs: MG13 through MG16, MG52, and MG53); *[40 CFR 60.48c(g)(2)]*
 - ii. monthly amount of diesel fuel purchased (in gallons) for emergency generators and fire pumps (EUs: MG17 through MG28 and MG51);
 - iii. date and duration of operation of emergency generators and fire pumps for testing, maintenance, and non-emergency use (EUs: MG17 through MG28 and MG51);
 - iv. date and duration of operation of emergency generators and fire pumps for emergency use, including documentation justifying use during the emergency (EUs: MG17 through MG28 and MG51);
 - v. monthly monitoring results of TDS content of cooling tower circulation water;
 - vi. MSDS or records demonstrating the VOC content for each compound used for surface coating activities;
 - vii. a log book of all inspections, maintenance, and repairs as specified in this Operating Permit;
 - viii. records of burner efficiency testing as specified in this Operating Permit;
 - ix. results of performance testing as specified in this Operating Permit; and
 - x. GDO records shall contain, at minimum, the following information (EU: MG46): *[AQR 12.5.2.6]*

- (i) a record of any maintenance on any part of the Phase I equipment, including a general description of the maintenance;
 - (ii) the date and time the equipment was taken out-of-service;
 - (iii) the date of repair or replacement;
 - (iv) general description of the part location (e.g., pump, tank, nozzle number, etc.);
 - (v) a description of the problem; and
 - (vi) results of the monthly inspections.
- b. The Permittee shall maintain on site and report the following information semi-annually: *[AQR 12.5.2.6(d)]*
- i. monthly total of operating hours of emergency generator(s) for testing, maintenance, and non-emergency use (EUs: MG17 through MG28 and MG51);
 - ii. monthly total of operating hours of emergency generator(s) for emergency use, including documentation justifying use during the emergency (EUs: MG17 through MG28 and MG51);
 - iii. monthly and any consecutive 12-month total consumption (in gallons) of each VOC-containing compound (paints, basecoats, primers, reducers, thinners, solvents, etc.) related to surface coating activities (EUs: MG29, MG39, and MG40);
 - iv. monthly and any consecutive 12-month total consumption (in gallons) of degreaser used (EU: MG33);
 - v. monthly and any consecutive 12-month total of gasoline throughput *[40 CFR 63.11116(b)]*;
 - vi. monthly and any consecutive 12-month total hours of woodworking operations (EUs: MG44 and MG45); and
 - vii. monthly and any consecutive 12-month total pounds of pyrotechnics used (EU: MG43).
- c. For all inspections, visible emission checks, and testing required under monitoring, logs, reports, and records shall include at least the date and time, the name of the person performing the action, the results or findings, and the type of corrective action taken (if required). *[AQR 12.5.2.6(d)]*
- d. The Control Officer or the Air Quality-approved Certified Phase I Vapor Recovery Tester shall use an approved Audit Form to record the type of performance tests conducted, as well as, the results of the tests. An approved form may be obtained from Air Quality or an Air Quality-approved Certified Phase I Vapor Recovery Tester. The source shall retain the completed Audit Form for each test performed. *[AQR 12.5.2.6(d)]*

B. NEW YORK – NEW YORK

1. Emission Units

- a. The stationary source covered by the Part 70 OP consists of the emission units and associated appurtenances summarized in Table III.B.1.a. *[369 NSR ATC/OP Modification 1 (09/11/02), 737 NSR ATC/OP Modification 3 (01/10/03), 737 NSR ATC/OP Modification 4 (04/29/04), 825 NSR ATC/OP Modification 6 (11/29/04), 825 NSR ATC/OP Modification 9*

(09/06/06), 825 NSR ATC Modification 13 (12/31/09), Revision to an ATC/OP (00825_M14_R00_L00_20080523_APP) incorporated into the Title V, and Title V Application (00825_20131015_SUP) incorporated into the Title V]

Table III.B.1.a: Summary of Emission Units – New York – New York

EU	Rating	Type	Manufacturer	Model No.	Serial No.
NY27	1,818 hp	Diesel Emergency Generator	Caterpillar	3512TA	24Z06937
NY28	1,818 hp	Diesel Emergency Generator	Caterpillar	3512TA	24Z06932
NY29	1,818 hp	Diesel Emergency Generator	Caterpillar	3512TA	24Z06931
NY37	1.999 MMBtu/hr	Boiler	RBI	Futura III, MB2000	S/N 110540862
NY38	1.999 MMBtu/hr	Boiler	RBI	Futura III, MB2000	S/N 110540863
NY40		Carpentry Shop with Dust Collector	Murphy Rodgers	MRSE-13-4D	1003
NY42	1.999 MMBtu/hr	Boiler	RBI	Futura III, MW2000	20952475
NY43	1.999 MMBtu/hr	Boiler	RBI	Futura III, MW2000	10952259
NY44	1.999 MMBtu/hr	Boiler	RBI	Futura III, MW2000	10952225
NY45	1.999 MMBtu/hr	Pool Heater	RBI	MW2000	071364989

2. Emission Limitations

- a. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.B.2.a. [369 NSR ATC/OP Modification 1 (09/11/02), 737 NSR ATC/OP Modification 3 (01/10/03), 737 NSR ATC/OP Modification 4 (04/29/04), 825 NSR ATC/OP Modification 6 (11/29/04), 825 NSR ATC/OP Modification 9 (09/06/06), 825 NSR ATC Modification 13 (12/31/09), Revision to an ATC/OP (00825_M14_R00_L00_20080523_APP) incorporated into the Title V, and Title V Application (00825_20131015_SUP) incorporated into the Title V]

Table III.B.2.a: PTE (tons per year) – New York – New York

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
NY27	1,818 hp	0.32	0.32	10.91	2.50	0.01	0.32	0.01
NY28	1,818 hp	0.32	0.32	10.91	2.50	0.01	0.32	0.01
NY29	1,818 hp	0.32	0.32	10.91	2.50	0.01	0.32	0.01
NY37	1.999 MMBtu/hr	0.07	0.07	0.21	0.32	0.01	0.05	0.02
NY38	1.999 MMBtu/hr	0.07	0.07	0.21	0.32	0.01	0.05	0.02
NY40		0.04	0.04	0.00	0.00	0.00	0.00	0.00
NY42	1.999 MMBtu/hr	0.07	0.07	0.21	0.32	0.01	0.05	0.02
NY43	1.999 MMBtu/hr	0.07	0.07	0.21	0.32	0.01	0.05	0.02
NY44	1.999 MMBtu/hr	0.07	0.07	0.21	0.32	0.01	0.05	0.02
NY45	1.999 MMBtu/hr	0.07	0.07	0.10	0.32	0.01	0.05	0.02

- b. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes when viewed in accordance with EPA Method 9. [AQR 26.1.1]

3. Operational Limitations

- a. The Permittee shall limit the operation of the emergency generators (EUs: NY27 through NY29) for testing and maintenance purposes to 100 hours per calendar year. The Permittee may operate the emergency generators up to 50 hours per calendar year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. The 50 hours per calendar year for nonemergency situations cannot be used for peak shavings or to generate income for the facility. [40 CFR 63.6640(f)(1)]
- b. The Murphy Rodgers dust collector shall be operating at all times PM₁₀ is emitted during the use of the shop and shall be limited to 3,640 hours per any consecutive 12-months (EU: NY40). [825 NSR ATC Modification 13 (12/31/09) Condition IV-B-3-a]

4. Control Requirements

Boilers/Water Heaters

- a. The Permittee shall combust only natural gas in all boilers and water heaters. [369 NSR ATC/OP Modification 1 (09/11/02) Condition III-B-1, 825 NSR ATC/OP Modification 9 (09/06/06) Condition III-B-1, and 737 NSR ATC/OP Modification 3 (01/10/03) Condition III-B-11]
- b. The Permittee shall operate and maintain all boilers and water heaters in accordance with the manufacturer's specifications. [369 NSR ATC/OP Modification 1 (09/11/02) Condition III-B-31, 825 NSR ATC/OP Modification 9 (09/06/06) Condition III-B-2, and 737 NSR ATC/OP Modification 3 (01/10/03) Condition III-B-11]
- c. The Permittee shall operate each of the RBI boilers with burners rated for maximum emission rates of 20 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EUs: NY37 and NY38). [825 NSR ATC/OP Modification 9 (09/06/06) Condition III-B-3]
- d. The Permittee shall operate the RBI boilers with burners rated for maximum emission rates of 20 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EUs: NY42 through NY44). [825 NSR ATC Modification 13 (12/31/09) Condition IV-B-2-d]

Diesel Generators/Fire Pumps

- e. The Permittee shall operate and maintain all diesel generators and fire pumps in accordance with the manufacturer's specifications. [369 NSR ATC/OP Modification 1 (09/11/02) Condition III-B-7]
- f. The Permittee shall combust only diesel fuel in all diesel generators. [40 CFR 63, Subpart ZZZZ (63.6604)]
- g. The Permittee shall operate each of the diesel emergency generators with turbochargers (EUs: NY27 through NY29). [369 NSR ATC/OP Modification 1 (09/11/02) Condition III-B-6]

Woodworking

- h. The Permittee shall operate the Murphy Rodgers baghouse dust collectors during all cutting, sanding, blasting, and surface preparation to control 99% of PM₁₀ emissions (EU: NY40). [825 NSR ATC Modification 13 (12/31/09) Condition IV-B-4]

5. Monitoring

Diesel Generators/Fire Pumps

- a. The Permittee shall operate each emergency generator/fire pump with a non-resettable hour meter and monitor the duration of operation for testing, maintenance and non-emergency operation, and separately for emergencies. The nature of the emergency leading to emergency operation shall be documented (EUs: NY27 through NY29). [AQR 12.5.2.6(d)]

Visible Emissions

- b. The Permittee shall perform visual emissions checks each calendar quarter on a source-wide level for each diesel-fired emission unit and emitting activity to demonstrate compliance with the opacity limit. If any diesel-fired emission unit or emitting activity does not operate during the calendar quarter, then no observation of that unit or activity shall be required. If visible emissions that appear to exceed the opacity limit(s) are observed, corrective actions shall be taken to minimize the emissions, and, if practicable, the opacity of emissions shall be visually determined in accordance with 40 CFR 60 Appendix A: Reference Method 9. [AQR 12.5.2.6(d)]

6. Testing

- a. No performance testing requirements have been identified for emission units at New York - New York. [AQR 12.5.2.6(d)]

7. Record Keeping

- a. The Permittee shall maintain records on site that include, at minimum, the following information: [AQR 12.5.2.6(d)]
 - i. monthly amount of diesel fuel purchased (in gallons) for emergency generators (EUs: NY27 through NY29);
 - ii. date and duration of operation of emergency generators for testing, maintenance, and non-emergency use (EUs: NY27 through NY29); and
 - iii. date and duration of operation of emergency generators for emergency use, including documentation justifying use during the emergency (EUs: NY27 through NY29).
- b. The Permittee shall maintain on site and report the following information semi-annually: [AQR 12.5.2.6(d)]
 - iv. monthly total of operating hours of emergency generators for testing, maintenance, and non-emergency use (EUs: NY27 through NY29);
 - v. monthly total of operating hours of emergency generators for emergency use, including documentation justifying use during the emergency (EUs: NY27 through NY29); and
 - vi. monthly and any consecutive 12-month total hours of woodworking operations (EU: NY40).

C. MONTE CARLO

1. Emission Units

- a. The stationary source covered by the Part 70 OP consists of the emission units and associated appurtenances summarized in Table III.C.1.a. [74 NSR ATC/OP Modification 1 (11/15/04) and Minor Title V Revisions (00825_T5_R00_20080523_SUP-2 and 00825_20120913_APP) incorporated into the Title V]

Table III.C.1.a: Summary of Emission Units – Monte Carlo

EU	Rating	Type	Manufacturer	Model No.	Serial No.
MC001	12.6 MMBtu/hr	Boiler	Universal Energy	BF300L	248-EG
MC002	12.6 MMBtu/hr	Boiler	Universal Energy	BF300L	249-EG
MC003	12.6 MMBtu/hr	Boiler	Universal Energy	BF300L	250-EG
MC004	12.6 MMBtu/hr	Boiler	Universal Energy	BF300L	251-EG
MC014	3,393 gpm	Cooling Tower	Baltimore Air Coil	31213A-RM	U053137701MAD
MC015	3,393 gpm	Cooling Tower	Baltimore Air Coil	31213A-RM	U053137702MAD
MC016	3,393 gpm	Cooling Tower	Baltimore Air Coil	31213A-RM	U053137703MAD
MC017	3,393 gpm	Cooling Tower	Baltimore Air Coil	31213A-RM	U053137704MAD
MC018	3,393 gpm	Cooling Tower	Baltimore Air Coil	31213A-RM	U053137705MAD
MC019	2,172 hp	Diesel Emergency Generator	Caterpillar	3512	6WN00081
MC020	2,172 hp	Diesel Emergency Generator	Caterpillar	3512	6WN00082
MC021	348 hp	Diesel Emergency Generator	Clarke-Detroit	DDFPT6FA 840IV	6VF213751
MC022	343 hp	Diesel Emergency Generator	Caterpillar	3306	9NR02273
MC024	3,000 dscfm	Shop with Dust Collector	Donaldson Torit	UMA 250	3857951-01-01-01

2. Emission Limitations

- a. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.C.2.a. [74 NSR ATC/OP Modification 1 (11/15/04) and Minor Title V Revisions (00825_T5_R00_20080523_SUP-2, 00825_20120913_APP, and 00825_20150729_APP) incorporated into the Title V]

Table III.C.2.a: PTE (tons per year) – Monte Carlo

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
MC001	12.6 MMBtu/hr	0.41	0.41	2.02	4.09	0.03	0.30	0.10
MC002	12.6 MMBtu/hr	0.41	0.41	2.02	4.09	0.03	0.30	0.10
MC003	12.6 MMBtu/hr	0.41	0.41	2.02	4.09	0.03	0.30	0.10
MC004	12.6 MMBtu/hr	0.41	0.41	2.02	4.09	0.03	0.30	0.10
MC014	3,393 gpm	0.53	0.53	0.00	0.00	0.00	0.00	0.00
MC015	3,393 gpm	0.53	0.53	0.00	0.00	0.00	0.00	0.00
MC016	3,393 gpm	0.53	0.53	0.00	0.00	0.00	0.00	0.00
MC017	3,393 gpm	0.53	0.53	0.00	0.00	0.00	0.00	0.00

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
MC018	3,393 gpm	0.53	0.53	0.00	0.00	0.00	0.00	0.00
MC019	2,172 hp	0.38	0.38	13.03	2.99	0.01	0.38	0.02
MC020	2,172 hp	0.38	0.38	13.03	2.99	0.01	0.38	0.02
MC021	348 hp	0.19	0.19	2.70	0.58	0.01	0.22	0.01
MC022	343 hp	0.19	0.19	2.66	0.57	0.01	0.22	0.01
MC024	3,000 dscfm	0.60	0.60	0.00	0.00	0.00	0.00	0.00

- b. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.C.2.b. *[74 NSR ATC/OP Modification 1 (11/15/04) Condition II-B and Minor Title V Revision (00825_20150729_APP) incorporated into the Title V]*

Table III.C.2.b: PTE (pounds per hour) – Monte Carlo

EU	Rating	NO _x	CO
MC001	12.6 MMBtu/hr	0.46	0.93
MC002	12.6 MMBtu/hr	0.46	0.93
MC003	12.6 MMBtu/hr	0.46	0.93
MC004	12.6 MMBtu/hr	0.46	0.93

- c. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. *[AQR 26.1.1]*

3. Operational Limitations

- a. The Permittee shall limit the operation of the emergency generators (EUs: MC019 through MC022) for testing and maintenance purposes to 100 hours per calendar year. The Permittee may operate the emergency generators up to 50 hours per calendar year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. The 50 hours per calendar year for nonemergency situations cannot be used for peak shavings or to generate income for the facility. *[40 CFR 63.6640(f)(1)]*

4. Control Requirements

Boilers/Water Heaters

- a. The Permittee shall combust only natural gas in all boilers and water heaters. *[74 NSR ATC/OP Modification 1 (11/15/04) Condition III-B-1 and Minor Title V Revision (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- b. The Permittee shall operate and maintain all boilers and water heaters in accordance with the manufacturer's specifications. *[74 NSR ATC/OP Modification 1 (11/15/04) Condition III-B-2 and Minor Title V Revision (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- c. The Permittee shall operate each of the Universal Energy boilers with flue gas recirculation and burners rated for maximum emission rates of 30 ppmv NO_x and 100 ppmv CO, corrected to three percent oxygen (EUs: MC001 through MC004). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

Diesel Generators/Fire Pumps

- d. The Permittee shall operate and maintain all diesel generators and fire pumps in accordance with the manufacturer's specifications. *[74 NSR ATC/OP Modification 1 (11/15/04) Condition III-B-8]*
- e. The Permittee shall only combust only diesel fuel in each diesel generator. *[40 CFR 63, Subpart ZZZZ (63.6604)]*
- f. The Permittee shall operate the diesel emergency generators with turbochargers and aftercoolers (EUs: MC019, MC020, and MC022). *[74 NSR ATC/OP Modification 1 (11/15/04) Condition III-B-7]*
- g. The Permittee shall operate the diesel emergency generator with a turbocharger (EU: MC021). *[74 NSR ATC/OP Modification 1 (11/15/04) Condition III-B-7]*

Cooling Towers

- h. The Permittee shall operate each of the Baltimore Aircoil cooling towers with drift eliminators with a manufacturer's drift rate of 0.005 percent (EUs: MC014 through MC018). *[Minor Title V Revision (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- i. The Permittee shall not allow the TDS content of each the cooling tower circulation water to exceed 3,000 ppm (EUs: MC014 through MC018). *[Minor Title V Revision (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

Woodworking

- j. The Permittee shall operate the Donaldson Torit dust collector during all cutting, sanding, blasting, and surface preparation to control 99% of PM₁₀ emissions (EU: MC024). *[Minor Title V Revision (00825_20120913_APP) incorporated into the Title V]*

5. Monitoring

Boilers/Water Heaters

- a. The Permittee shall install and utilize non-resettable hour meters such that the monthly consumption of natural gas can be established for each applicable boiler (EUs: MC001 through MC004). *[AQR 12.5.2.6(d) and 40 CFR 60, Subpart Dc]*

Burner Efficiency Tests

- b. The Permittee operating a boiler with a maximum heat input rating of 10.0 MMBtu/hr or greater shall perform burner efficiency tests at least twice each year. The tests shall be performed at least five (5) months but no more than seven (7) months apart during each calendar year (EUs: MC001 through MC004). *[AQR 12.5.2.6(d)]*
- c. The Permittee may choose not to perform a burner efficiency test on that boiler during that calendar year if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 4.0 MMBtu/hr, are zero (0) during a calendar year. *[AQR 12.5.2.6(d)]*
- d. The Permittee may perform a burner efficiency test on that boiler only once during that calendar year if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 10.0 MMBtu/hr, are less than 50 hours during a calendar year. *[AQR 12.5.2.6(d)]*
- e. A performance test may replace a required burner efficiency test as approved by the Control Officer. *[AQR 12.5.2.6(d)]*

- f. The results from burner efficiency testing shall not be used to determine an emission unit's compliance status with its corresponding emission limit(s). [AQR 12.5.2.6]

Diesel Generators/Fire Pumps

- g. The Permittee shall operate each emergency generator/fire pump with a non-resettable hour meter and monitor the duration of operation for testing, maintenance and non-emergency operation, and separately for emergencies. The nature of the emergency leading to emergency operation shall be documented (EUs: MC019 through MC022). [AQR 12.5.2.6(d)]

Cooling Towers

- h. The Permittee shall monitor the TDS of the recirculation water for each cooling tower, monthly, using a conductivity meter, or other device approved in advance by the Control Officer. [AQR 12.5.2.6(d)]

Visible Emissions

- i. The Permittee shall perform visual emissions checks each calendar quarter on a source-wide level for each diesel-fired emission unit and emitting activity to demonstrate compliance with the opacity limit. If any diesel-fired emission unit or emitting activity does not operate during the calendar quarter, then no observation of that unit or activity shall be required. If visible emissions that appear to exceed the opacity limit(s) are observed, corrective actions shall be taken to minimize the emissions, and, if practicable, the opacity of emissions shall be visually determined in accordance with 40 CFR 60 Appendix A: Reference Method 9. [AQR 12.5.2.6(d)]

6. Testing

Boiler/ Water Heater Performance Tests

- a. Performance testing is subject to the requirements of 40 CFR 60 (as amended). Performance testing shall be the instrument for determining compliance with emission limitations set forth in this permit for all boilers that have a heat input rating equal to or greater than 10.0 MMBtu/hr (EUs: MC001 through MC004). [AQR 12.5.2.6(d)]
- b. Subsequent performance testing shall be conducted at a frequency of no later than once every 5 years from the previous performance test on that boiler. Subsequent performance testing shall be conducted on emission units MC001 through MC004. [AQR 12.5.2.6(d)]
- c. Performance testing for the applicable boilers shall comply with the testing protocol requirements identified in Table III.C.6.c: [AQR 12.5.2.6(d)]

Table III.C.6.c: Performance Testing Protocol Requirements

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

Note: 40 CFR Part 60, Subpart Dc applies to specific combustion units at this facility.

7. Record Keeping

- a. The Permittee shall maintain records on site that include, at minimum, the following information: [AQR 12.5.2.6(d)]

- i. monthly and any consecutive 12-month total amount of natural gas consumed (in MMBtu, scf, or therms) for each boiler (EUs: MC001 through MC004); [40 CFR 60.48c(g)(2)]
 - ii. monthly amount of diesel fuel purchased (in gallons) for emergency generators (EUs: MC019 through MC022);
 - iii. date and duration of operation of emergency generators for testing, maintenance, and non-emergency use (EUs: MC019 through MC022); and
 - iv. date and duration of operation of emergency generators for emergency use, including documentation justifying use during the emergency (EUs: MC019 through MC022).
 - v. monthly monitoring results of TDS content of cooling tower circulation water;
 - vi. records of burner efficiency testing as specified in this Operating Permit; and
 - vii. results of performance testing as specified in this Operating Permit.
- b. The Permittee shall maintain on site and report the following information semi-annually: [AQR 12.5.2.6(d)]
- i. monthly total of operating hours of emergency generator(s) for testing, maintenance, and non-emergency use (EUs: MC019 through MC022); and
 - ii. monthly total of operating hours of emergency generator(s) for emergency use, including documentation justifying use during the emergency (EUs: MC019 through MC022).

D. THE SIGNATURE AT MGM GRAND

1. Emission Units

- a. The stationary source covered by the Part 70 OP consists of the emission units and associated appurtenances summarized in Table III.D.1.a. [15615 NSR ATC/OP Modification 1 (08/15/05) and Minor Title V Revision (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]

Table III.D.1.a: Summary of Emission Units – Signature

EU	Rating	Type	Manufacturer	Model No.	Serial No.
TBA01	1.0 MMBtu/hr	Boiler	Lochinvar	PBN-1000	K04H00170956
TBA02	1.0 MMBtu/hr	Boiler	Lochinvar	PBN-1000	K04H00170957
TBA03	0.50 MMBtu/hr	Boiler	Lochinvar	PBN-0500	K04H00170954
TBA04	0.50 MMBtu/hr	Boiler	Lochinvar	PBN-0500	K04H00170955
TBA05	0.50 MMBtu/hr	Boiler	Lochinvar	PFN-0500	K04H00171227
TBA06	0.50 MMBtu/hr	Boiler	Lochinvar	PFN-0500	K04H00171228
TBA07	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	K04H00171229
TBA08	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	K04H00171230
TBA09	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	K04H00171231
TBA10	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	K04H00171232
TBA11	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	K04H00171233
TBA12	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	K04H00171234
TBA13	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	K04H00171235
TBA14	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	K04H00171236

EU	Rating	Type	Manufacturer	Model No.	Serial No.
TBA15	1,180 hp	Diesel Emergency Generator	Caterpillar	3412CTA	1EZ07104
TBB01	1.0 MMBtu/hr	Boiler	Lochinvar	PBN-1001	H0500178777
TBB02	1.0 MMBtu/hr	Boiler	Lochinvar	PBN-1001	H0500178778
TBB03	0.50 MMBtu/hr	Boiler	Lochinvar	PFN- 0501PM	L05H00182363
TBB04	0.50 MMBtu/hr	Boiler	Lochinvar	PFN- 0501PM	L05H00182364
TBB05	0.50 MMBtu/hr	Boiler	Lochinvar	PBN-0501	A06H00183059
TBB06	0.50 MMBtu/hr	Boiler	Lochinvar	PBN-0501	A06H00183060
TBB07	0.75 MMBtu/hr	Boiler	Lochinvar	PFN- 0751PM	L05H00182643
TBB08	0.75 MMBtu/hr	Boiler	Lochinvar	PFN- 0751PM	L05H00182644
TBB09	0.75 MMBtu/hr	Boiler	Lochinvar	PFN- 0751PM	L05H00182645
TBB10	0.75 MMBtu/hr	Boiler	Lochinvar	PFN- 0751PM	L05H00182646
TBB11	0.75 MMBtu/hr	Boiler	Lochinvar	PFN- 0751PM	L05H00182655
TBB12	0.75 MMBtu/hr	Boiler	Lochinvar	PFN- 0751PM	L05H00182656
TBB13	0.75 MMBtu/hr	Boiler	Lochinvar	PFN- 0751PM	L05H00182657
TBB14	0.75 MMBtu/hr	Boiler	Lochinvar	PFN- 0751PM	L05H00182658
TBB15	2,520 hp	Diesel Emergency Generator	Caterpillar	3516 BTA	GZR00237
TBB16	3,600 gpm	Cooling Tower	Baltimore Aircoil	31213A	U053430901VAD
TBB17	3,600 gpm	Cooling Tower	Baltimore Aircoil	31213A	U053430902VAD
TBB18	3,600 gpm	Cooling Tower	Baltimore Aircoil	31213A	U053430903VAD
TBB19	3,600 gpm	Cooling Tower	Baltimore Aircoil	31213A	U065367301VAD
TBC01	1.0 MMBtu/hr	Boiler	Lochinvar	PBN-1000	B06H00184073
TBC02	1.0 MMBtu/hr	Boiler	Lochinvar	PBN-1000	BH6H00184074
TBC03	0.75 MMBtu/hr	Boiler	Lochinvar	PFN- 0751PM	E06H00186881
TBC04	0.75 MMBtu/hr	Boiler	Lochinvar	PFN- 0751PM	E06H00186895
TBC05	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	E06H00186899
TBC06	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	E06H00186900
TBC07	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	E06H00186898
TBC08	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	E06H00186880
TBC09	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	E06H00186897
TBC10	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	E06H00186596
TBC11	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	E06H00186547
TBC12	0.75 MMBtu/hr	Boiler	Lochinvar	PFN-0750	E06H00186548

EU	Rating	Type	Manufacturer	Model No.	Serial No.
TBC13	0.50 MMBtu/hr	Boiler	Lochinvar	PFN-0500	E06H00187161
TBC14	0.50 MMBtu/hr	Boiler	Lochinvar	PFN-0500	E06H00187162

2. Emission Limitations

- a. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.D.2.a. [15615 NSR ATC/OP Modification 1 (08/15/05) and Minor Title V Revision (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]

Table III.D.2.a: PTE (tons per year) – Signature

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
TBA01	1.0 MMBtu/hr	0.03	0.03	0.13	0.26	0.01	0.02	0.01
TBA02	1.0 MMBtu/hr	0.03	0.03	0.13	0.26	0.01	0.02	0.01
TBA03	0.50 MMBtu/hr	0.01	0.01	0.06	0.13	0.01	0.01	0.01
TBA04	0.50 MMBtu/hr	0.01	0.01	0.06	0.13	0.01	0.01	0.01
TBA05	0.50 MMBtu/hr	0.01	0.01	0.06	0.13	0.01	0.01	0.01
TBA06	0.50 MMBtu/hr	0.01	0.01	0.06	0.13	0.01	0.01	0.01
TBA07	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBA08	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBA09	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBA10	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBA11	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBA12	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBA13	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBA14	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBA15	1,180 hp	0.21	0.21	7.08	1.62	0.01	0.21	0.01
TBB01	1.0 MMBtu/hr	0.03	0.03	0.13	0.26	0.01	0.02	0.01
TBB02	1.0 MMBtu/hr	0.03	0.03	0.13	0.26	0.01	0.02	0.01
TBB03	0.50 MMBtu/hr	0.01	0.01	0.06	0.13	0.01	0.01	0.01
TBB04	0.50 MMBtu/hr	0.01	0.01	0.06	0.13	0.01	0.01	0.01
TBB05	0.50 MMBtu/hr	0.01	0.01	0.06	0.13	0.01	0.01	0.01
TBB06	0.50 MMBtu/hr	0.01	0.01	0.06	0.13	0.01	0.01	0.01
TBB07	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBB08	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBB09	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBB10	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBB11	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBB12	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBB13	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBB14	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBB15	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
TBB16	3,600 gpm, 0.001% Drift Loss	0.11	0.11	0.00	0.00	0.00	0.00	0.00
TBB17	3,600 gpm, 0.001% Drift Loss	0.11	0.11	0.00	0.00	0.00	0.00	0.00
TBB18	3,600 gpm, 0.001% Drift Loss	0.11	0.11	0.00	0.00	0.00	0.00	0.00
TBB19	3,600 gpm, 0.001% Drift Loss	0.11	0.11	0.00	0.00	0.00	0.00	0.00
TBC01	1.0 MMBtu/hr	0.03	0.03	0.13	0.26	0.01	0.02	0.01

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
TBC02	1.0 MMBtu/hr	0.03	0.03	0.13	0.26	0.01	0.02	0.01
TBC03	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBC04	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBC05	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBC06	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBC07	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBC08	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBC09	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBC10	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBC11	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBC12	0.75 MMBtu/hr	0.02	0.02	0.10	0.19	0.01	0.01	0.01
TBC13	0.50 MMBtu/hr	0.01	0.01	0.06	0.13	0.01	0.01	0.01
TBC14	0.50 MMBtu/hr	0.01	0.01	0.06	0.13	0.01	0.01	0.01

- b. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. *[AQR 26.1.1]*

3. Operational Limitations

- a. The Permittee shall limit the operation of each boiler to 7,000 hours per any consecutive 12-months (EUs: TBA01 through TBA14, TBB01 through TBB14, and TBC01 through TBC14). *[Minor Title V Revision (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- b. The Permittee shall limit the operation of the emergency generators (EUs: TBA15 and TBB15) for testing and maintenance purposes to 100 hours per calendar year. The Permittee may operate the emergency generators up to 50 hours per calendar year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. The 50 hours per calendar year for nonemergency situations cannot be used for peak shavings or to generate income for the facility. *[40 CFR 63.6640(f)(1)]*

4. Control Requirements

Boilers/Water Heaters

- a. The Permittee shall combust only natural gas in all boilers and water heaters. *[15615 NSR ATC/OP Modification 1 (08/15/05) Condition III-B-1]*
- b. The Permittee shall operate and maintain all boilers and water heaters in accordance with the manufacturer's specifications. *[15615 NSR ATC/OP Modification 1 (08/15/05) Condition III-B-1]*
- c. The Permittee shall operate each boiler with burners rated for maximum emission rates of 30 ppmv NO_x and 100 ppmv CO, corrected to three percent oxygen (EUs: TBA01 through TBA14, TBB01 through TBB14, and TBC01 through TBC14). *[15615 NSR ATC/OP Modification 1 (08/15/05) Conditions III-B-3 and III-B-4]*

Diesel Generators/Fire Pumps

- d. The Permittee shall operate and maintain all diesel generators and fire pumps in accordance with the manufacturer's specifications. *[15615 NSR ATC/OP Modification 1 (08/15/05) Conditions III-B-3 and III-B-8]*

- e. The Permittee shall combust only diesel fuel in all diesel generators. *[40 CFR 63, Subpart ZZZZ (63.6604)]*
- f. The Permittee shall operate each of the diesel emergency generators with turbochargers and aftercoolers (EUs: TBA15 and TBB15). *[15615 NSR ATC/OP Modification 1 (08/15/05) Condition III-B-8]*

Cooling Towers

- g. The Permittee shall operate each of the Baltimore Aircoil cooling towers with drift eliminators with a manufacturer's drift rate of 0.001 percent (EUs: TBB16 through TBB19). *[15615 NSR ATC/OP Modification 1 (08/15/05) Condition III-B-10]*
- h. The Permittee shall not allow the TDS content of each the cooling tower circulation water to exceed 3,000 ppm for each of the Baltimore Aircoil cooling towers (EUs: TBB16 through TBB19). *[Minor Title V Revision (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

5. Monitoring

Boilers/Water Heaters

- a. The Permittee shall install and utilize non-resettable hour meters such that the monthly operating hours can be established for each applicable boiler/water heater (EUs: TBA01 through TBA14, TBB01 through TBB14, and TBC01 through TBC14). *[AQR 12.5.2.6(d)]*

Diesel Generators/Fire Pumps

- b. The Permittee shall operate each emergency generator/fire pump with a non-resettable hour meter and monitor the duration of operation for testing, maintenance and non-emergency operation, and separately for emergencies. The nature of the emergency leading to emergency operation shall be documented (EUs: TBA15 and TBB15). *[AQR 12.5.2.6(d)]*

Cooling Towers

- c. The Permittee shall monitor the TDS of the recirculation water for each cooling tower, monthly, using a conductivity meter, or other device approved in advance by the Control Officer. *[AQR 12.5.2.6(d)]*

Visible Emissions

- d. The Permittee shall perform visual emissions checks each calendar quarter on a source-wide level for each diesel-fired emission unit and emitting activity to demonstrate compliance with the opacity limit. If any diesel-fired emission unit or emitting activity does not operate during the calendar quarter, then no observation of that unit or activity shall be required. If visible emissions that appear to exceed the opacity limit(s) are observed, corrective actions shall be taken to minimize the emissions, and, if practicable, the opacity of emissions shall be visually determined in accordance with 40 CFR 60 Appendix A: Reference Method 9. *[AQR 12.5.2.6(d)]*

6. Testing

- a. No performance testing requirements have been identified for emission units at The Signature at MGM Grand. *[AQR 12.5.2.6(d)]*

7. Record Keeping

- a. The Permittee shall maintain records on site that include, at minimum, the following information: *[AQR 12.5.2.6(d)]*
 - i. monthly TDS content of cooling tower circulation water.
 - ii. monthly amount of diesel fuel purchased (in gallons) for emergency generators (EUs: TBA15 and TBB15);
 - iii. date and duration of operation of emergency generators for testing, maintenance, and non-emergency use (EUs: TBA15 and TBB15); and
 - iv. date and duration of operation of emergency generators for emergency use, including documentation justifying use during the emergency (EU: TBA15 and TBB15).
- b. The Permittee shall maintain on site and report the following information semi-annually: *[AQR 12.5.2.6(d)]*
 - i. monthly and any consecutive 12-month total hours of operation for each boiler and water heater (EUs: TBA01 through TBA14, TBB01 through TBB14, and TBC01 through TBC14);
 - ii. monthly total of operating hours of emergency generator(s) for testing, maintenance, and non-emergency use (EUs: TBA15 and TBB15); and
 - iii. monthly total of operating hours of emergency generator(s) for emergency use, including documentation justifying use during the emergency (EU: TBA15 and TBB15).

E. MANDALAY BAY

1. Emission Units

- a. The stationary source covered by the Part 70 OP consists of the emission units and associated appurtenances summarized in Table III.E.1.a. *[737 NSR ATC/OP Modification 3 (01/10/03), 737 NSR ATC/OP Modification 4 (04/29/04), 825 NSR Modification 11 (11/16/06), 825 NSR ATC Modification 13 (12/31/09), Revision to an ATC/OP (00825_M14_R00_L00_20080523_APP) incorporated into the Title V, Title V Applications (00825_T5_R00_20080523_SUP-2 and 00825_20130606_APP) incorporated into the Title V, Minor Title V Revision (00825_20120913_APP) incorporated into the Title V, and Title V Renewal (00825_20150629_APP) incorporated into the Title V]*

Table III.E.1.a: Summary of Emission Units – Mandalay Bay

EU	Rating	Type	Manufacturer	Model No.	Serial No.
MB001	20.0 MMBtu/hr	Boiler	Unilux	ZF2000W	2218
MB002	20.0 MMBtu/hr	Boiler	Unilux	ZF2000W	2217
MB003	20.0 MMBtu/hr	Boiler	Unilux	ZF2000W	2216
MB004	20.0 MMBtu/hr	Boiler	Unilux	ZF2000W	2215
MB009	5.0	Boiler	Bryan	RV500	81771

EU	Rating	Type	Manufacturer	Model No.	Serial No.
	MMBtu/hr				
MB010	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8358
MB011	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8359
MB012	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8360
MB013	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8357
MB014	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8356
MB015	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8355
MB016	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-40-97-8350
MB017	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-40-97-8349
MB018	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-40-97-8348
MB019	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-40-97-8239
MB020	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8366
MB021	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8367
MB022	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-44-97-8413
MB023	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8361
MB024	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8362
MB025	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8363
MB026	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8364
MB027	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8351
MB028	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8352
MB029	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8353
MB030	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-43-97-8354
MB031	1.90 MMBtu/hr	Boiler	Patterson-Kelley	N1900-2	CJ-43-97-8396
MB032	1.90 MMBtu/hr	Boiler	Patterson-Kelley	N1900-2	CJ-43-97-8395
MB033	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-37-98-9504
MB034	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-39-98-9612
MB035	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-39-98-9613

EU	Rating	Type	Manufacturer	Model No.	Serial No.
MB036	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-08-98-8615
MB037	1.90 MMBtu/hr	Boiler	Patterson-Kelley	D1900-2	CJ-08-98-8613
MB039	1.75 MMBtu/hr	Boiler	RBI	FH 1950S	109918042
MB040	1.75 MMBtu/hr	Boiler	RBI	FH 1950S	109918043
MB041	1.75 MMBtu/hr	Boiler	RBI	FH 1950S	109918044
MB042	1.8 MMBtu/hr	Boiler	Lochinvar	CFN-1800	D028018
MB043	1.8 MMBtu/hr	Boiler	Lochinvar	CFN-1800	D028019
MB044	2.75 MMBtu/hr	Boiler	Unilux	ZF250HS	2804
MB045	2.75 MMBtu/hr	Boiler	Unilux	ZF250HS	2805
MB049	20.0 MMBtu/hr	Boiler	Unilux	ZF2000W	2808
MB050	20.0 MMBtu/hr	Boiler	Unilux	ZF2000W	2806
MB051	20.0 MMBtu/hr	Boiler	Unilux	ZF2000W	2807
MB055	1.8 MMBtu/hr	Water Heater	Raypak	WH9-1802	303206420
MB056	1.8 MMBtu/hr	Water Heater	Raypak	WH9-1802	303206419
MB057	1.8 MMBtu/hr	Water Heater	Raypak	WH9- 1802	
MB058	1.8 MMBtu/hr	Water Heater	Raypak	WH9- 1802	303206421
MB059	1.8 MMBtu/hr	Water Heater	Raypak	WH9- 1802	303206422
MB060	1.8 MMBtu/hr	Water Heater	Raypak	WH9- 1802	303206423
MB061	2,168 hp	Diesel Emergency Generator	Caterpillar	3516 DITA	25Z06027
MB062	2,168 hp	Diesel Emergency Generator	Caterpillar	3516 DITA	25Z02994
MB063	2,168 hp	Diesel Emergency Generator	Caterpillar	3516 DITA	25Z03002
MB064	240 hp	Diesel Fire Pump	Cummins	413	45574278
MB065	208 hp	Diesel Fire Pump	Cummins	403	45593028
MB066	2,518 hp	Diesel Emergency Generator	Caterpillar	3516 DITA	3NS00234
MB067	2,220 hp	Diesel Emergency	Cummins	KTA50-G9	33146939

EU	Rating	Type	Manufacturer	Model No.	Serial No.
		Generator			
MB068	3,200 gpm	Cooling Tower	Marley	NCC262CS-97	122096-001
MB069	3,200 gpm	Cooling Tower	Marley	NCC262CS-97	122096-002
MB070	3200 gpm	Cooling Tower	Marley	NCC262CS-97	122096-003
MB071	3,200 gpm	Cooling Tower	Marley	NCC262CS-97	122096-004
MB072	3,200 gpm	Cooling Tower	Marley	NCC262CS-97	122096-005
MB077	3,200 gpm	Cooling Tower	Marley	NCC262CS-97	122096-010
MB078	3,200 gpm	Cooling Tower	Marley	NC8311G-2	216412-A1
MB079	3,200 gpm	Cooling Tower	Marley	NC8311G-2	216412-B2
MB080	3,200 gpm	Cooling Tower	Marley	NC8311G-2	216412-B1
MB081	3,200 gpm	Cooling Tower	Marley	NC8311G-2	216412-A2
MB082	3,200 gpm	Cooling Tower	Marley	NC8311G-2	216412-C1
MB083	3,200 gpm	Cooling Tower	Marley	NC8311G-2	216412-D2
MB084	3,200 gpm	Cooling Tower	Marley	NC8311G-2	216412-D1
MB085	3,200 gpm	Cooling Tower	Marley	NC8311G-2	216412-C2
MB086	600 gpm	Cooling Tower	Baltimore Aircoil		
MB087		Spray Booth	Binks	Semi-Custom	27'x21'x10'
MB088		Carpentry Shop with Dust Collector	Murphy-Rogers	MRSE-16-4-D	S/N 1039
MB089	1,000 Gallons	Aboveground Storage Tank	Convault	RNE1000 3SF	M734031
MB090	5.4 MMBtu/hr	Boiler	Unilux	ZF500HS	3140
MB091	1.95 MMBtu/hr	Water Heater	RBI Futera II	FB1950NE2ACSS	30331380
MB092	1.95 MMBtu/hr	Water Heater	RBI Futera II	FB1950NE2ACSS	30331381
MB093	2,172 hp	Diesel Emergency Generator	Caterpillar	3512	1GZ01339
MB094	4.3 MMBtu/hr	Boiler	Hurst Scotch Marine	S500-150-77M	S4-X-100-150
MB095	0.199 MMBtu/hr	Hot Water Heater	A.O. Smith	BTH 199-970	1211M001212
MB096	0.199 MMBtu/hr	Hot Water heater	A.O. Smith	BTH 199-970	1225M000672

EU	Rating	Type	Manufacturer	Model No.	Serial No.
MB097	0.399 MMBtu/hr	Boiler	Raypak	CR406A-EN-C ASME	1006310946
MB098	0.399 MMBtu/hr	Boiler	Raypak	CR406A-EN-C ASME	1012316967
MB099	0.399 MMBtu/hr	Boiler	Raypak	CR406A-EN-X ASME	0610256847
MB100	3,200 gpm	Cooling Tower	Evapco	AT-228-0924	11-45672
MB101	3,200 gpm	Cooling Tower	Evapco	AT-228-0924	11-45674
MB102	3,200 gpm	Cooling Tower	Evapco	AT-228-0924	
MB103	3,200 gpm	Cooling Tower	Evapco	AT-228-0924	
MB104		Spray Booth	Col-Met	IB-06-07-05	
MB105		Spray Booth	Col-Met	IBB-04-07-02	
MB106	2,500 cfm	Carpentry Shop with Dust Collector	Donaldson Torit	20 Cyclone	3758157

2. Emission Limitations

- a. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.E.2.a. [737 NSR ATC/OP Modification 3 (01/10/03), 737 NSR ATC/OP Modification 4 (04/29/04), 825 NSR Modification 11 (11/16/06), 825 NSR ATC Modification 13 (12/31/09), Revision to an ATC/OP (00825_M14_R00_L00_20080523_APP) incorporated into the Title V, Title V Applications (00825_T5_R00_20080523_SUP-2, 00825_20121220_APP, and 00825_20130606_APP) incorporated into the Title V, Minor Title V Revision (00825_20120913_APP and 00825_20150729_APP) incorporated into the Title V, and Title V Renewal (00825_20150629_APP) incorporated into the Title V]

Table III.E.2.a: PTE (tons per year) – Mandalay Bay

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
MB001	20.0 MMBtu/hr	1.34	1.34	6.30	2.70	0.11	0.97	0.33
MB002	20.0 MMBtu/hr							
MB003	20.0 MMBtu/hr							
MB004	20.0 MMBtu/hr							
MB009	5.00 MMBtu/hr	0.16	0.16	0.77	2.96	0.01	0.12	0.04
MB010	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB011	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB012	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB013	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB014	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB015	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB016	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB017	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB018	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB019	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB020	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB021	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB022	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
MB023	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB024	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB025	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB026	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB027	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB028	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB029	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB030	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB031	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB032	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB033	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB034	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB035	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB036	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB037	1.90 MMBtu/hr	0.06	0.06	0.40	0.68	0.01	0.04	0.02
MB039	1.75 MMBtu/hr	0.06	0.06	0.37	0.58	0.01	0.04	0.01
MB040	1.75 MMBtu/hr	0.06	0.06	0.37	0.58	0.01	0.04	0.01
MB041	1.75 MMBtu/hr	0.06	0.06	0.37	0.58	0.01	0.04	0.01
MB042	1.80 MMBtu/hr	0.06	0.06	0.38	0.65	0.01	0.04	0.01
MB043	1.80 MMBtu/hr	0.06	0.06	0.38	0.65	0.01	0.04	0.01
MB044	2.75 MMBtu/hr	0.09	0.09	0.44	0.45	0.01	0.06	0.02
MB045	2.75 MMBtu/hr	0.09	0.09	0.44	0.45	0.01	0.06	0.02
MB049	20.0 MMBtu/hr	1.65	1.65	8.05	16.32	0.13	1.19	0.42
MB050	20.0 MMBtu/hr							
MB051	20.0 MMBtu/hr							
MB055	1.80 MMBtu/hr	0.06	0.06	0.27	0.28	0.01	0.04	0.01
MB056	1.80 MMBtu/hr	0.06	0.06	0.27	0.28	0.01	0.04	0.01
MB057	1.80 MMBtu/hr	0.06	0.06	0.27	0.28	0.01	0.04	0.01
MB058	1.80 MMBtu/hr	0.06	0.06	0.27	0.28	0.01	0.04	0.01
MB059	1.80 MMBtu/hr	0.06	0.06	0.27	0.28	0.01	0.04	0.01
MB060	1.80 MMBtu/hr	0.06	0.06	0.27	0.28	0.01	0.04	0.01
MB061	2,168 bhp	0.38	0.38	13.01	2.98	0.01	0.38	0.02
MB062	2,168 bhp	0.38	0.38	13.01	2.98	0.01	0.38	0.02
MB063	2,168 bhp	0.38	0.38	13.01	2.98	0.01	0.38	0.02
MB064	240 bhp	0.13	0.13	1.86	0.40	0.01	0.15	0.01
MB065	208 bhp	0.11	0.11	1.61	0.35	0.01	0.13	0.01
MB066	2,518 bhp	0.44	0.44	15.11	3.46	0.01	0.44	0.02
MB067	2,220 bhp	0.39	0.39	13.32	3.05	0.01	0.39	0.02
MB068	3,200 gpm	0.60	0.60	0.00	0.00	0.00	0.00	0.00
MB069	3,200 gpm	0.60	0.60	0.00	0.00	0.00	0.00	0.00
MB070	3,200 gpm	0.60	0.60	0.00	0.00	0.00	0.00	0.00
MB071	3,200 gpm	0.60	0.60	0.00	0.00	0.00	0.00	0.00
MB072	3,200 gpm	0.60	0.60	0.00	0.00	0.00	0.00	0.00
MB077	3,200 gpm	0.60	0.60	0.00	0.00	0.00	0.00	0.00
MB078	3,200 gpm	0.49	0.49	0.00	0.00	0.00	0.00	0.00
MB079	3,200 gpm	0.49	0.49	0.00	0.00	0.00	0.00	0.00
MB080	3,200 gpm	0.49	0.49	0.00	0.00	0.00	0.00	0.00
MB081	3,200 gpm	0.49	0.49	0.00	0.00	0.00	0.00	0.00
MB082	3,200 gpm	0.49	0.49	0.00	0.00	0.00	0.00	0.00
MB083	3,200 gpm	0.49	0.49	0.00	0.00	0.00	0.00	0.00
MB084	3,200 gpm	0.49	0.49	0.00	0.00	0.00	0.00	0.00

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
MB085	3,200 gpm	0.49	0.49	0.00	0.00	0.00	0.00	0.00
MB086	600 gpm	0.01	0.01	0.00	0.00	0.00	0.00	0.00
MB087		0.01	0.01	0.00	0.00	0.00	4.97	0.99
MB088		0.01	0.01	0.00	0.00	0.00	0.00	0.00
MB089	1,000 Gal	0.00	0.00	0.00	0.00	0.00	0.84	0.01
MB090	5.4 MMBtu/hr	0.18	0.18	1.16	1.56	0.01	0.13	0.04
MB091	1.95 MMBtu/hr	0.03	0.03	0.20	0.34	0.01	0.02	0.01
MB092	1.95 MMBtu/hr	0.03	0.03	0.20	0.34	0.01	0.02	0.01
MB093	2,172 bhp	0.38	0.38	13.03	2.99	0.01	0.38	0.02
MB094	4.3 MMBtu/hr	0.14	0.14	0.28	0.70	0.01	0.10	0.03
MB095	0.199 MMBtu/hr	0.01	0.01	0.06	0.03	0.01	0.01	0.01
MB096	0.199 MMBtu/hr	0.01	0.01	0.06	0.03	0.01	0.01	0.01
MB097	0.399 MMBtu/hr	0.01	0.01	0.12	0.14	0.01	0.01	0.01
MB098	0.399 MMBtu/hr	0.01	0.01	0.12	0.14	0.01	0.01	0.01
MB099	0.399 MMBtu/hr	0.01	0.01	0.12	0.14	0.01	0.01	0.01
MB100	3,200 gpm	0.21	0.21	0.00	0.00	0.00	0.00	0.00
MB101	3,200 gpm	0.21	0.21	0.00	0.00	0.00	0.00	0.00
MB102	3,200 gpm	0.21	0.21	0.00	0.00	0.00	0.00	0.00
MB103	3,200 gpm	0.21	0.21	0.00	0.00	0.00	0.00	0.00
MB104		0.00	0.00	0.00	0.00	0.00	2.56	1.20
MB105		0.00	0.00	0.00	0.00	0.00	0.22	0.10
MB106	2,500 cfm	0.05	0.05	0.00	0.00	0.00	0.00	0.00

- b. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.E.2.b. *[737 NSR ATC/OP Modification 3 (01/10/03) Section B]*

Table III.E.2.b: PTE (pounds per hour) – Mandalay Bay

EU	Rating	NO _x	CO
MB001	20.0 MMBtu/hr	0.70	0.30
MB002	20.0 MMBtu/hr	0.70	0.30
MB003	20.0 MMBtu/hr	0.70	0.30
MB004	20.0 MMBtu/hr	0.70	0.30
MB049	20.0 MMBtu/hr	0.73	1.48
MB050	20.0 MMBtu/hr	0.73	1.48
MB051	20.0 MMBtu/hr	0.73	1.48

- c. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. *[AQR 26.1.1]*

3. Operational Limitations

- a. The Permittee shall limit the combined operation of the boilers rated at 20.0 MMBtu/hr to 18,000 hours per any consecutive 12-months (EUs: MB001 through MB004). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

- b. The Permittee shall limit the combined operation of the Unilux boilers (EUs: MB049 through MB051) to 22,000 hours per any consecutive 12-months. *[Title V Application (00825_20121220_APP) incorporated into the Title V]*
- c. The Permittee shall limit the operation of the emergency generators and fire pumps (EUs: MB061 through MB067 and MB093) for testing and maintenance purposes to 100 hours per calendar year. The Permittee may operate the emergency generators up to 50 hours per calendar year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. The 50 hours per calendar year for nonemergency situations cannot be used for peak shavings or to generate income for the facility. *[40 CFR 63.6640(f)(1)]*
- d. The Permittee shall limit the operation of each of the cooling towers with a circulation rate of 3,200 gallons per minute (EUs: MB078 through MB085) to 7,200 hours per any consecutive 12-months. *[737 NSR ATC/OP Modification 4 (04/29/04) Condition III-A-34]*
- e. The Permittee shall limit the operation of the cooling tower with a circulation rate of 600 gpm to 500 hours per any consecutive 12-months (EU: MB086). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- f. The Permittee shall limit the consumption of VOC containing paints, basecoats, primers, reducers, inks, thinners, solvents, etc. from the Binks spray booth (EU: MB087) to 3,839 gallons per any consecutive 12-months, based on an average VOC content of 2.59 pounds per gallon and 20 percent HAP content. *[737 NSR ATC/OP Modification 4 (04/29/04) Condition III-A-40]*
- g. The Permittee shall operate the Murphy Rodgers dust collector at all times PM₁₀ is emitted during the use of the shop and shall be limited to 1,200 hours per any consecutive 12-months (EU: MB088). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- h. The Permittee shall limit the throughput (aggregate of all gasoline products) to 20,000 gallons per any consecutive 12-months (EU: MB089). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- i. The Permittee shall limit the consumption of VOC-containing paints, basecoats, primers, reducers, inks, thinners, solvents, etc. from the Col-Met spray booth (EU: MB104) to 780 gallons per any consecutive 12-months, based on an average VOC content of 5.0 pounds per gallon and 47 percent HAP content. *[Title V Application (00825_20130606_APP) incorporated into the Title V]*
- j. The Permittee shall limit the consumption of VOC-containing paints, basecoats, primers, reducers, inks, thinners, solvents, etc. from the Co-Met spray booth (EU: MB105) to 780 gallons per any consecutive 12-months, based on an average VOC content of 0.56 pounds per gallon and 47 percent HAP content. *[Title V Application (00825_20130606_APP) incorporated into the Title V]*
- k. The Permittee shall operate the Donaldson Torit dust collector at all times PM₁₀ is emitted during the use of the shop and shall be limited to 1,600 hours per any consecutive 12-months (EU: MB106). *[Title V Application (00825_20130606_APP) incorporated into the Title V]*

4. Control Requirements

Boilers/Water Heaters

- a. The Permittee shall combust only natural gas in all boilers and water heaters. *[737 NSR ATC/OP Modification 3 (01/10/03) Condition III-B-11]*
- b. The Permittee shall operate and maintain all boilers and water heaters in accordance with the manufacturer's specifications. *[825 NSR ATC/OP Modification 11 (11/16/06) Condition III-B-2]*
- c. The Permittee shall operate each of the Unilux 20 MMBtu/hr boilers with burners rated for maximum emission rates of 29 ppmv NO_x and 20 ppmv CO, corrected to three percent oxygen (EUs: MB001 through MB004). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- d. The Permittee shall operate the Bryan 5 MMBtu/hr boiler with burners rated for maximum emission rates of 29 ppmv NO_x and 182 ppmv CO, corrected to three percent oxygen (EU: MB009). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- e. The Permittee shall operate each of the Patterson Kelley 1.9 MMBtu/hr boilers with burners rated for maximum emission rates of 40 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EUs: MB010 through MB037). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- f. The Permittee shall operate each of the RBI 1.75 MMBtu/hr boilers with burners rated for maximum emission rates of 40 ppmv NO_x and 102 ppmv CO, corrected to three percent oxygen (EUs: MB039 through MB041). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- g. The Permittee shall operate each of the Lochinvar 1.8 MMBtu/hr boilers with burners rated for maximum emission rates of 40 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EUs: MB042 through MB043). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- h. The Permittee shall operate each of the Unilux 2.75 MMBtu/hr boilers with burners rated for maximum emission rates of 30 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EUs: MB044 through MB045). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- i. The Permittee shall operate each of the Unilux 20.0 MMBtu/hr boilers with burners rated for maximum emission rates of 30 ppmv NO_x and 100 ppmv CO, corrected to three percent oxygen (EUs: MB049 through MB051). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- j. The Permittee shall operate each of the Raypak 1.8 MMBtu/hr water heaters with burners rated for maximum emission rates of 28 ppmv NO_x and 48 ppmv CO, corrected to three percent oxygen (EUs: MB055 through MM060). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- k. The Permittee shall operate the Unilux 5.4 MMBtu/hr boiler with burners rated for maximum emission rates of 40 ppmv NO_x and 89 ppmv CO, corrected to three percent oxygen (EU: MB090). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

- i. The Permittee shall operate each of the RBI 1.95 MMBtu/hr boilers with burners rated for maximum emission rates of 19 ppmv NO_x and 53 ppmv CO, corrected to three percent oxygen (EUs: MB091 through MB092). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- m. The Permittee shall operate the Hurst Scotch Marine 4.3 MMBtu/hr boiler with burners rated for maximum emission rates of 12 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EU: MB094). *[825 NSR ATC/OP Modification 11 (11/16/06) Condition III-B-3]*
- n. The Permittee shall operate each of the A.O. Smith 0.199 MMBtu/hr hot water heaters with burners rated for maximum emission rates of 55 ppmv NO_x and 53 ppmv CO, corrected to three percent oxygen (EUs: MB095 and MB096). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-C-2-c]*
- o. The Permittee shall operate each of the Raypak 0.399 MMBtu/hr boilers with burners rated for maximum emission rates of 55 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EUs: MB097 through MB099). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-C-2-d]*

Diesel Generators/Fire Pumps

- p. The Permittee shall operate and maintain all diesel generators and fire pumps in accordance with the manufacturer's specifications. *[737 NSR ATC/OP Modification 3 (01/10/03) Condition III-B-12]*
- q. The Permittee shall combust only diesel fuel in all diesel generators and fire pumps. *[40 CFR 63, Subpart ZZZZ (63.6604)]*
- r. The Permittee shall operate each of the diesel emergency generators with turbochargers (EUs: MB061 through MB067 and MB093). *[737 NSR ATC/OP Modification 3 (01/10/03) Condition III-B-12]*

Cooling Towers

- s. The Marley cooling towers shall each be equipped with drift eliminators with a manufacturer's drift rate of 0.005 percent (EUs: MB068 through MB072 and MB077 through MB085). *[737 NSR ATC/OP Modification 4 (04/29/04) Condition III-B-16]*
- t. The Baltimore Aircoil cooling tower shall be equipped with drift eliminators with a manufacturer's maximum drift rate of 0.002 percent (EU: MB086). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- u. The Evapco cooling towers shall each be equipped with drift eliminators with a manufacturer's drift rate of 0.002 percent (EUs: MB100 through MB103). *[Minor Title V Revision (00825_20120913_APP) incorporated into the Title V]*
- v. The Permittee shall not allow the TDS content of the cooling tower circulation water to exceed 4,500 ppm (EUs: MB068 through MB072 and MB077 through MB085). *[Minor Title V Revision (00825_20120913_APP) incorporated into the Title V]*
- w. The Permittee shall not allow the TDS content of the cooling tower circulation water to exceed 3,000 ppm (EU: MB086). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- x. The Permittee not allow the TDS content of the cooling tower circulation water to exceed 4,500 ppm (EUs: MB100 through MB103). *[Minor Title V Revision (00825_20120913_APP) incorporated into the Title V]*

Surface Coating

- y. The Permittee shall not operate the spray booths (EUs: MB087, MB104, and MB105) unless all exhaust air passes through appropriate filter media having a particulate capture efficiency of at least 99.0 percent. (This is usually accomplished with tacky filter material that is at least 2 inches thick.) The dry filter media must cover all openings in the spray booth. *[737 NSR ATC/OP Modification 3 (01/10/03) Condition III-B-1 and Title V Application (00825_20130606_APP) incorporated into the Title V]*
- z. The Permittee shall use covered containers for storage or disposal of VOC or HAP-containing cloth or paper (excluding masking tape) used for surface preparation and cleanup. *[737 NSR ATC/OP Modification 3 (01/10/03) Condition III-B-2 and Title V Application (00825_20130606_APP) incorporated into the Title V]*
- aa. All filters or other control equipment associated with surface coating operations shall follow manufacturer's specifications for use and operation. Dry filters must be changed at sufficient intervals to prevent a decrease in their effectiveness and prevent them from clogging. *[737 NSR ATC/OP Modification 3 (01/10/03) Condition III-B-5 and Title V Application (00825_20130606_APP) incorporated into the Title V]*
- bb. The Permittee shall use a manometer (or equivalent) to monitor the pressure drop across the spray booth filters. The filters should be replaced when the pressure drop exceeds 0.25 inches of water (6.35 millimeters of water), unless the manufacturer's specifications for use indicate a different pressure drop value. *[737 NSR ATC/OP Modification 3 (01/10/03) Condition III-B-6 and Title V Application (00825_20130606_APP) incorporated into the Title V]*
- cc. The Permittee shall clean surface coating application equipment in an enclosed container to minimize VOC volatilization into the ambient air. *[737 NSR ATC/OP Modification 3 (01/10/03) Condition III-B-7 and Title V Application (00825_20130606_APP) incorporated into the Title V]*
- dd. All containers with VOC-containing products shall remain securely closed, except during product transfer. Containers shall be inspected regularly for leakage and the contents of any leaking container must be immediately transferred to an appropriately labeled container that has been specifically designed for storage of the compound. *[737 NSR ATC/OP Modification 3 (01/10/03) Condition III-B-8 and Title V Application (00825_20130606_APP) incorporated into the Title V]*
- ee. The Permittee shall employ good housekeeping practices to prevent the accumulation and/or dispersal of particulate matter from sanding, blasting, surface preparation, etc. carried out in conjunction with surface coating operations. No more than 0.25 inches of particulate matter shall accumulate on surrounding surfaces at any time. *[737 NSR ATC/OP Modification 3 (01/10/03) Condition III-B-4 Title V Application (00825_20130606_APP) incorporated into the Title V]*

Woodworking

- ff. The Permittee shall operate the Murphy-Rogers dust collector during all cutting, sanding, blasting, and surface preparation to control 99% of PM₁₀ emissions (EUs: MB088). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- gg. The Permittee shall operate the Donaldson Torit dust collector during all cutting, sanding, blasting, and surface preparation to control 99% of PM₁₀ emissions (EUs: MB106). *[Title V Application (00825_20130606_APP) incorporated into the Title V]*

Gasoline Storage/Dispensing

- hh. The Permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Preventative measures to be taken include, but are not limited to, the following: [40 CFR 63.11116]
- i. Minimize gasoline spills.
 - ii. Clean up spills as expeditiously as practicable.
 - iii. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use.
 - iv. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
- ii. The Permittee shall install, maintain and operate a Phase I Vapor Recovery System on all storage tanks that meets the following requirements: [AQR 12.5.2.6]
- xii. The Phase I vapor recovery system shall be rated with at least 95.0 percent control efficiency when in operation. This system shall be certified by an industry recognized certification body, i.e., California Air Resources Board (CARB) or equivalent.
 - xiii. The Phase I vapor recovery system shall be a dual-point vapor balance system, as defined by 40 CFR 63.11132, in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.
 - xiv. All Phase I vapor recovery equipment shall be installed, maintained and operated in accordance with the manufacturer's specifications and certification requirements.
 - xv. All vapor connections and lines on storage tanks shall be equipped with closures that seal upon disconnect.
 - xvi. The vapor line from the gasoline storage tanks to the gasoline cargo tank shall be vapor-tight, as defined in 40 CFR 63.11132.
 - xvii. The vapor balance system shall be designed such that the pressure in the cargo tank does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.
 - xviii. The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.
 - xix. If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the tank as the fill tube.
 - xx. Liquid fill connections for all systems shall be equipped with vapor-tight caps.
 - xxi. A pressure/vacuum (PV) vent valve on each gasoline storage tank system shall be installed, maintained and operated in accordance with the manufacturer's specifications. The pressure specifications for PV vent valves shall comply with:
 3. a positive pressure setting of 2.5 to 6.0 inches of water, and a negative pressure setting of 6.0 to 10.0 inches of water; and
 4. the total leak rate of all PV vent valves at the affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water. [AQR 12.5.2.6]

- xxii. The vapor balance system shall be capable of meeting the static pressure performance requirement in 40 CFR 63, Subpart CCCCCC, Table 1, Part 1 and comply with the equation: $P_f = 2e^{-500.887/v}$
- jj. Cargo tanks unloading at the source must comply with management practices as follows: *[AQR 12.5.2.6]*
 - vii. All hoses in the vapor balance system are properly connected.
 - viii. The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect.
 - ix. All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight.
 - x. All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank.
 - xi. All hatches on the tank truck are closed and securely fastened.
 - xii. The filling of storage tanks shall be limited to unloading from vapor-tight gasoline cargo tanks with documentation carried onboard that it has met the specifications of EPA Method 27.

5. Monitoring

Boilers/Water Heaters

- a. The Permittee shall install and utilize non-resettable hour meters for each applicable boiler (EUs: MB001 through MB004 and MB049 through MB051). *[AQR 12.5.2.6(d)]*

Burner Efficiency Tests

- b. The Permittee operating a boiler with a maximum heat input rating equal to or greater than 4.0 MMBtu/hr but less than 10.0 MMBtu/hr shall perform a burner efficiency test at least once each calendar year. Burner efficiency tests shall be conducted in accordance with the manufacturer's specifications and specifications for good combustion practices (EUs: MB009, MB090, and MB094). *[AQR 12.5.2.6(d)]*
- c. The Permittee operating a boiler with a maximum heat input rating of 10.0 MMBtu/hr or greater shall perform burner efficiency tests at least twice each year. The tests shall be performed at least five (5) months but no more than seven (7) months apart during each calendar year (EUs: MB001 through MB004 and MB049 through MB051). *[AQR 12.5.2.6(d)]*
- d. The Permittee may choose not to perform a burner efficiency test on that boiler during that calendar year if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 4.0 MMBtu/hr, are zero (0) during a calendar year. *[AQR 12.5.2.6(d)]*
- e. The Permittee may perform a burner efficiency test on that boiler only once during that calendar year if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 10.0 MMBtu/hr, are less than 50 hours during a calendar year. *[AQR 12.5.2.6(d)]*
- f. A performance test may replace a required burner efficiency test as approved by the Control Officer. *[AQR 12.5.2.6(d)]*

- g. The results from burner efficiency testing shall not be used to determine an emission unit's compliance status with its corresponding emission limit(s). [AQR 12.5.2.6]

Diesel Generators/Fire Pumps

- h. The Permittee shall operate each emergency generator/fire pump with a non-resettable hour meter and monitor the duration of operation for testing, maintenance and non-emergency operation, and separately for emergencies. The nature of the emergency leading to emergency operation shall be documented (EUs: MB061 through MB067 and MB093). [AQR 12.5.2.6(d)]

Surface Coating

- i. The Permittee shall inspect spray paint booth and all ancillary equipment for leaks, malfunctions, proper operation of gauges and pressure drops each month the booth is operated, and perform appropriate maintenance as needed. A log must be kept of all inspections as well as any corrective actions taken to repair the equipment. [AQR 12.5.2.6(d)]

Gasoline Storage/Dispensing

- j. The Permittee shall conduct monthly inspections associated with the Phase I vapor recovery system to determine if components of the system are defective. [AQR 12.5.2.6(d)]

Cooling Towers

- k. The Permittee shall monitor the TDS of the recirculation water for each cooling tower, monthly, using a conductivity meter, or other device approved in advance by the Control Officer. [AQR 12.5.2.6(d)]

Visible Emissions

- l. The Permittee shall perform visual emissions checks each calendar quarter on a source-wide level for each diesel-fired emission unit and emitting activity to demonstrate compliance with the opacity limit. If any diesel-fired emission unit or emitting activity does not operate during the calendar quarter, then no observation of that unit or activity shall be required. If visible emissions that appear to exceed the opacity limit(s) are observed, corrective actions shall be taken to minimize the emissions, and, if practicable, the opacity of emissions shall be visually determined in accordance with 40 CFR 60 Appendix A: Reference Method 9. [AQR 12.5.2.6(d)]

6. Testing

Boiler/ Water Heater Performance Tests

- a. Performance testing shall be performed following the procedures provided under 40 CFR 60 (as amended). Performance testing shall be the instrument for determining compliance with emission limitations set forth in this permit for all boilers that have a heat input rating equal to or greater than 10.0 MMBtu/hr (EUs: MB001 through MB004 and MB049 through MB051). [AQR 12.5.2.6(d)]
- b. Subsequent performance testing shall be conducted at a frequency of no later than once every 5 years from the previous performance test on that boiler. Subsequent performance testing shall be conducted on emission units MB001 through MB004 and MB049 through MB051. [AQR 12.5.2.6(d)]
- c. Performance testing for the applicable boilers shall comply with the testing protocol requirements identified in Table III.E.6.c: [AQR 12.5.2.6(d)]

Table III.E.6.c: Performance Testing Protocol Requirements

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

Note: 40 CFR Part 60, Subpart Dc applies to specific combustion units at this facility.

Gasoline Storage/Dispensing

- d. The Permittee shall conduct Phase I vapor recovery tests in accordance with the California Air Resources Board (CARB)-approved vapor recovery test procedures (as revised) listed in Table III.E.6.j. [AQR 12.5.2.6(d)]
- e. The Permittee shall schedule each vapor recovery test with the Stationary Sources Compliance Supervisor at least 30 calendar days prior to the anticipated date of testing, unless otherwise specified in this permit. [AQR 12.5.2.6(d)]
- f. Any prior approved scheduled vapor recovery system test cannot be canceled and/or rescheduled except with the prior approval of the Control Officer, Compliance Division. [AQR 12.5.2.6(d)]
- g. The Permittee shall conduct Phase I Vapor Recovery System Testing on affected GDO equipment according to the following requirements: [AQR 12.5.2.6(d)]
 - i. The Permittee shall conduct and pass an initial vapor recovery system test within 30 days of startup of new equipment, or when the integrity of the vapor recovery system has been affected by a modification or repair. Routine maintenance, including the replacement of hoses, nozzles and ECD, does not require an initial vapor recovery system test.
 - ii. The Permittee shall conduct and pass subsequent Phase I vapor recovery system tests on or before the anniversary date of the initial performance test at the frequency specified in Table III.E.6.j.
 - iii. Each vapor recovery system test may be witnessed by an inspector from Air Quality.
- h. The Permittee shall submit the GDO Test Results Submittal Form (available on Air Quality's website) to the Control Officer after each vapor recovery system test. The submittal form shall meet the following conditions: [AQR 12.5.2.6(d)]
 - i. The test results shall be complete and signed by the Responsible Official for the equipment being tested. The Responsible Official must certify that the test results are true, accurate and complete.
 - ii. Test results shall be submitted by regular mail, fax, or in person.
 - iii. The test report shall be submitted by the source or by the Permittee's testing company or consultant, but the source is the responsible party and must ensure that the test report is delivered to Air Quality within the above timeline.
- i. If the source passes the vapor recovery system test, the Permittee shall submit the test results report to the Control Officer within 30 days from the date of the vapor recovery system test. [AQR 12.5.2.6(d)]
- j. If the source fails a vapor recovery system test, the Permittee shall comply with the following: [AQR 12.5.2.6(d)]

- i. The Permittee shall notify the Control Officer within 24 hours of equipment test failure, make all necessary repairs and re-test the affected facility. After re-testing, the Permittee shall notify the Control Officer to advise of the re-test and submit test results within 15 days of completion.
- ii. The process of re-testing shall continue until the affected facility successfully passes all aspects of the vapor recovery system test.
- iii. The Control Officer may require the Permittee to conduct any previously required test after a failed vapor recovery system test in the presence of an Air Quality representative.

Table III.E.6.j: Vapor Recovery System Testing Procedures and Schedules

Type of Vapor Recovery System	Test Procedure	Frequency
Phase I Vapor Balance System	Pressure Decay/Leak test: CARB Procedure TP201.3B	Initial and every three years thereafter
	Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves: CARB Procedure TP-201.1E (as revised)	Initial and every three years thereafter

- k. The source shall implement changes to the existing vapor recovery system if any performance test results indicate such changes are necessary to maintain compliance with this permit. *[AQR 12.5.2.6(d)]*

7. Record Keeping

- a. The Permittee shall maintain records on site that include, at minimum, the following information: *[AQR 12.5.2.6(d)]*
 - i. monthly amount of natural gas consumed (in MMBtu, scf, or therms) for each boiler (EUs: MB001 through MB004 and MB049 through MB051) *[40 CFR 60, Subpart Dc (60.48c(g)(2))]*;
 - ii. monthly amount of diesel fuel purchased (in gallons) for emergency generators and fire pumps (EUs: MB061 through MB067, and MB093);
 - iii. date and duration of operation of emergency generators and fire pumps for testing, maintenance, and non-emergency use (EUs: MB061 through MB067, and MB093);
 - iv. date and duration of operation of emergency generators and fire pumps for emergency use, including documentation justifying use during the emergency (EUs: MB061 through MB067, and MB093);
 - v. monthly monitoring results of TDS content of cooling tower circulation water;
 - vi. MSDS or records demonstrating the VOC content for each compound used for surface coating activities;
 - vii. a log book of all inspections, maintenance, and repairs as specified in this Operating Permit;
 - viii. records of burner efficiency testing as specified in this Operating Permit;
 - ix. results of performance testing as specified in this Operating Permit; and

- x. GDO records shall contain, at minimum, the following information (EU: MB089):
[AQR 12.5.2.6]
 - (i) a record of any maintenance on any part of the Phase I equipment, including a general description of the maintenance;
 - (ii) the date and time the equipment was taken out-of-service;
 - (iii) the date of repair or replacement;
 - (iv) a general description of the part location (e.g., pump, tank, nozzle number, etc.);
 - (v) a description of the problem; and
 - (vi) the results of the monthly inspections.

- b. The Permittee shall maintain on site and report the following information semi-annually:
[AQR 12.5.2.6(d)]
 - i. monthly and any consecutive 12-month total of operating hours for each boiler and water heater (EUs: MB001 through MB004 and MB049 through MB051);
 - ii. monthly total of operating hours of emergency generator(s) for testing, maintenance, and non-emergency use (EUs: MB061 through MB067, and MB093);
 - iii. monthly total of operating hours of emergency generator(s) for emergency use, including documentation justifying use during the emergency (EUs: MB061 through MB067, and MB093);
 - iv. monthly hours of operation of each cooling tower (EUs: MB078 through MB086);
 - v. monthly and any consecutive 12-month total consumption (in gallons) of each VOC-containing compound related to surface coating activities (paints, basecoats, primers, reducers, thinners, solvents, etc.);
 - vi. monthly and any consecutive 12-month total of gasoline throughput *[40 CFR 63.11116(b)]*; and
 - vii. monthly and any consecutive 12-month total hours of woodworking operations (EUs: MB088 and MB106).

- c. For all inspections, visible emission checks, and testing required under monitoring, logs, reports, and records shall include at least the date and time, the name of the person performing the action, the results or findings, and the type of corrective action taken (if required). *[AQR 12.5.2.6(d)]*

- d. The Control Officer or the Air Quality-approved Certified Phase I Vapor Recovery Tester shall use an approved Audit Form to record the type of performance tests conducted, as well as, the results of the tests. An approved form may be obtained from Air Quality or an Air Quality-approved Certified Phase I Vapor Recovery Tester. The source shall retain the completed Audit Form for each test performed. *[AQR 12.5.2.6(d)]*

F. THE FOUR SEASONS

1. Emission Units

- a. The stationary source covered by the Part 70 OP consists of the emission units and associated appurtenances summarized in Table III.F.1.a. *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

Table III.F.1.a: Summary of Emission Units – The Four Seasons

EU	Rating	Type	Manufacturer	Model No.	Serial No.
FS001	1.9 MMBtu/hr	Boiler	Patterson-Kelley	SD-1900-2	CJ2098-8888
FS002	1.9 MMBtu/hr	Boiler	Patterson-Kelley	SD-1900-2	CJ20-98-8889
FS003	1.9 MMBtu/hr	Boiler	Patterson-Kelley	SD-1900-2	CJ20-98-8891

2. Emission Limitations

- a. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.F.2.a. *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

Table III.F.2.a: PTE (tons per year) – The Four Seasons

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
FS001	1.9 MMBtu/hr	0.06	0.06	0.27	0.45	0.01	0.06	0.03
FS002	1.9 MMBtu/hr							
FS003	1.9 MMBtu/hr							

- b. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. *[AQR 26.1.1]*

3. Operational Limitations

- a. The Permittee shall limit the operation of the boilers rated at 1.90 MMBtu/hr to 7,500 hours per any consecutive 12-months as a group (EUs: FS001 through FS003). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

4. Control Requirements

Boilers/Water Heaters

- a. The Permittee shall combust only natural gas in all boilers and water heaters. *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- b. The Permittee shall operate and maintain all boilers and water heaters in accordance with the manufacturer’s specifications. *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- c. The Permittee shall operate each of the Patterson Kelly 1.9 MMBtu/hr boilers with burners rated for maximum emission rates of 30 ppmv NO_x and 85 ppmv CO, corrected to three percent oxygen (EUs: FS001 through FS003). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

5. Monitoring

Boilers/Water Heaters

- a. The Permittee shall install and utilize non-resettable hour meters for each applicable boiler (EUs: FS001 through FS003). [AQR 12.5.2.6(d)]

6. Testing

- a. No performance testing requirements have been identified for the emission units at the Four Seasons. [AQR 12.5.2.6(d)]

7. Record Keeping

- a. The Permittee shall maintain on site and report the following information semi-annually [AQR 12.5.2.6(d)]:
 - i. monthly and any consecutive 12-month total hours of operating for each boiler (EUs: FS001 through FS003).

G. LUXOR

1. Emission Units

- a. The stationary source covered by the Part 70 OP consists of the emission units and associated appurtenances summarized in Table III.G.1.a. [856 NSR ATC/OP Modification 1 (4/15/99), 737 NSR ATC/OP Modification 4 (4/29/04), 825 NSR ATC/OP Modification 10 (09/20/06), 825 NSR ATC Modification 13 (12/31/09), Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V, Authority to Construct Application (00825_M15_R00_20090226_APP) incorporated into the Title V, Title V Application (00825_20131015_SUP) incorporated into the Title V, and Title V Renewal (00825_20150629_APP) incorporated into the Title V]

Table III.G.1.a: Summary of Emission Units – Luxor

EU	Rating	Type	Manufacturer	Model No.	Serial No.
LX002	21.0 MMBtu/hr	Boiler	Bryan	RW 2100-W-FDG-WLX	73501
LX003	21.0 MMBtu/hr	Boiler	Bryan	RW 2100-W-FDG-WLX	73505
LX004	21.0 MMBtu/hr	Boiler	Bryan	RW 2100-W-FDG-WLX	73518
LX005	8.5 MMBtu/hr	Boiler	Bryan	RW 850-S-150-FDG-WLX	79526
LX006	8.5 MMBtu/hr	Boiler	Bryan	RW 850-S-150-FDG-WLX	79543
LX008	1.99 MMBtu/hr	Pool Heater	Teledyne	PNCP2000NACC 2BJN	C04106373
LX009	2,168 hp	Diesel Emergency Generator	Caterpillar	3516TA	25Z03005

EU	Rating	Type	Manufacturer	Model No.	Serial No.
LX010	2,168 hp	Diesel Emergency Generator	Caterpillar	3516TA	25Z02998
LX011	2,168 hp	Diesel Emergency Generator	Caterpillar	3516TA	25Z02999
LX012	500 hp	Diesel Emergency Fire Pump	Detroit	DDFP-L8FA 8176	8VF-155634
LX013	708 hp	Diesel Emergency Fire Pump	Detroit	DDFP8FH8178V	8VF-155357
LX015	3,600 gpm	Cooling Tower	Baltimore	31213A	U040981802MAD
LX016	3,600 gpm	Cooling Tower	Baltimore	31213A	U040981803MAD
LX017	3,600 gpm	Cooling Tower	Baltimore	31213A	U040981801MAD
LX018	3,600 gpm	Cooling Tower	Baltimore	31213A	U040981804MAD
LX019	3,750 gpm	Cooling Tower	Baltimore	31213A	U040981805MAD
LX022	26'6"x19'6"x9'	Spray Booth	Binks		
LX023		Carpentry Shop with Dust Collector	American Cyclone	ACH-BF-24	138169
LX024	2,206 hp	Natural Gas/ Diesel Emergency Generator	Caterpillar	3512C	EGB00199
LX025	2,206 hp	Natural Gas/ Diesel Emergency Generator	Caterpillar	3512C	EGB00203
LX029	0.399 MMBtu/hr	Pool Heater	Teledyne	ESC400NX	F96PA0146
LX030	0.4896 MMBtu/hr	"Believe" Show Natural Gas Burner Ring			
LX031	3,600 gpm	Cooling Tower	Baltimore	31213A	U065065501
LX032	3,600 gpm	Cooling Tower	Baltimore	31213A	U065065502
LX033	3,600 gpm	Cooling Tower	Baltimore	31213A	U065065503
LX034	0.399 MMBtu/hr	Spa Heater	Raypak	C-R406A-EN-X ASME	1212349894
LX035	0.399 MMBtu/hr	Spa Heater	Raypak	C-R406A-EN-X ASME	1303354597

2. Emission Limitations

- a. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.G.2.a. [856 NSR ATC/OP Modification 1 (4/15/99), 737 NSR ATC/OP Modification 4 (4/29/04), 825 NSR ATC/OP Modification 10 (09/20/06), 825 NSR ATC Modification 13 (12/31/09), Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V, and Authority to Construct Application (00825_M15_R00_20090226_APP) incorporated into the Title V, Title V Application (00825_20121220_APP) incorporated into the Title V, and Title V Application (00825_20131015_SUP) incorporated into the Title V]

Table III.G.2.a: PTE (tons per year) – Luxor

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
LX002	21.0 MMBtu/hr	0.70	0.70	2.89	6.09	0.04	0.48	0.18
LX003	21.0 MMBtu/hr	0.70	0.70	2.89	6.09	0.04	0.48	0.18
LX004	21.0 MMBtu/hr	0.70	0.70	2.89	6.09	0.04	0.48	0.18
LX005	8.50 MMBtu/hr	0.38	0.38	1.60	4.20	0.03	0.28	0.09
LX006	8.50 MMBtu/hr							
LX008	1.99 MMBtu/hr	0.04	0.04	0.18	0.18	0.01	0.03	0.01
LX009	2,168 bhp	0.38	0.38	13.01	2.98	0.01	0.38	0.02
LX010	2,168 bhp	0.38	0.38	13.01	2.98	0.01	0.38	0.02
LX011	2,168 bhp	0.38	0.38	13.01	2.98	0.01	0.38	0.02
LX012	500 hp	0.28	0.28	3.88	0.84	0.01	0.31	0.01
LX013	708 bhp	0.12	0.12	4.25	0.97	0.01	0.12	0.01
LX015	3,600 gpm	0.56	0.56	0.00	0.00	0.00	0.00	0.00
LX016	3,600 gpm	0.56	0.56	0.00	0.00	0.00	0.00	0.00
LX017	3,600 gpm	0.56	0.56	0.00	0.00	0.00	0.00	0.00
LX018	3,600 gpm	0.56	0.56	0.00	0.00	0.00	0.00	0.00
LX019	3,750 gpm	0.58	0.58	0.00	0.00	0.00	0.00	0.00
LX022		0.00	0.00	0.00	0.00	0.00	0.82	0.45
LX023		0.04	0.04	0.00	0.00	0.00	0.00	0.00
LX024	2,206 hp	0.05	0.05	7.50	0.99	0.01	0.18	0.10
LX025	2,206 hp	0.05	0.05	7.50	0.99	0.01	0.18	0.10
LX029	0.399 MMBtu/hr	0.01	0.01	0.17	0.14	0.01	0.01	0.01
LX030	Custom Design (approximately 0.4896 MMBtu/hr)	0.01	0.01	0.13	0.11	0.01	0.01	0.01
LX031	3,600 gpm	0.56	0.56	0.00	0.00	0.00	0.00	0.00
LX032	3,600 gpm	0.56	0.56	0.00	0.00	0.00	0.00	0.00
LX033	3,600 gpm	0.56	0.56	0.00	0.00	0.00	0.00	0.00
LX034	0.399 MMBtu/hr	0.01	0.01	0.17	0.14	0.01	0.01	0.01
LX035	0.399 MMBtu/hr	0.01	0.01	0.17	0.14	0.01	0.01	0.01

b. The Permittee shall limit the actual and allowable emissions from each emission unit to the PTE listed in Table III.G.2.b. [737 NSR ATC/OP Modification 4 (4/29/04)]

Table III.G.2.b: PTE (pounds per hour) – Luxor

EU	Rating	NO _x	CO
LX002	21.0 MMBtu/hr	0.66	1.39
LX003	21.0 MMBtu/hr	0.66	1.39
LX004	21.0 MMBtu/hr	0.66	1.39

c. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. [AQR 26.1.1]

3. Operational Limitations

- a. The Permittee shall limit the operation of the four boilers rated at 21.0 MMBtu/hr to 27,000 hours per any consecutive 12-months as a group (EUs: LX002 through LX004). *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-A-19]*
- b. The Permittee shall limit the operation of the two boilers rated at 8.5 MMBtu/hr to 12,000 hours per any consecutive 12-months as a group (EUs: LX005 and LX006). *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-A-20]*
- c. The Permittee shall limit the operation of the Teledyne pool heater to 5,000 hours per any consecutive 12-months (EU: LX008). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- d. The Permittee shall limit the operation of the emergency generators and fire pumps (EUs: LX009 through LX013, LX024, and LX025) for testing and maintenance purposes to 100 hours per calendar year. The Permittee may operate the emergency generators up to 50 calendar hours per year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. The 50 hours per calendar year for nonemergency situations cannot be used for peak shavings or to generate income for the facility. *[40 CFR 63.6640(f)(1)]*
- e. The Permittee shall limit the consumption of VOC-containing paints, basecoats, primers, reducers, inks, thinners, solvents, etc. in the spray booth (EU: LX022) to 240 gallons per any consecutive 12-months, based on an average VOC content of 6.84 pounds per gallon and 55 percent HAP content. *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-A-43]*
- f. The Permittee shall limit the activities for the shop to 3,640 hours per any consecutive 12-months (EU: LX023). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- g. The Permittee shall limit the operation of the "Believe" Show Natural Gas Burner Ring to 2,682,000 standard cubic feet of natural gas per any consecutive 12-months (EU: LX030). *[Authority to Construct Application (00825_M15_R00_20090226_APP) incorporated into the Title V]*

4. Control Requirements

Boilers/Water Heaters

- a. The Permittee shall combust only natural gas in all boilers and water heaters. *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-B-11]*
- b. The Permittee shall operate and maintain all boilers and water heaters in accordance with the manufacturer's specifications. *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-B-11]*
- c. The Permittee shall operate each of the 21 MMBtu/hr boilers with burners rated for maximum emission rates of 25 ppmv NO_x and 89 ppmv CO, corrected to three percent oxygen (EUs: LX002 through LX004). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- d. The Permittee shall operate each of the 8.5 MMBtu/hr boilers with burners rated for maximum emission rates of 25 ppmv NO_x and 47 ppmv CO, corrected to three percent oxygen (EUs: LX005 and LX006). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

- e. The Permittee shall operate the 1.99 MMBtu/hr pool heater with burners rated for maximum emission rates of 30 ppmv NO_x and 48 ppmv CO, corrected to three percent oxygen (EU: LX008). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- f. The Permittee shall operate each of the two 0.399 MMBtu/hr Teledyne pool heaters with burners rated for maximum emission rates of 80 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EU: LX029). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-D-2-c]*

Diesel Generators/Fire Pumps

- g. The Permittee shall operate and maintain all diesel generators and fire pumps in accordance with the manufacturer's specifications. *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-B-15]*
- h. The Permittee shall combust only diesel fuel in all diesel generators and fire pumps. *[40 CFR 63, Subpart ZZZZ (63.6604)]*
- i. The Permittee shall operate all diesel emergency generators with turbochargers and aftercoolers (EUs: LX009 through LX011, LX024, and LX025). *[856 NSR ATC/OP Modification 1 (4/15/99) Conditions 4-4 and 4-5, 737 NSR ATC/OP Modification 4 (4/29/04) Condition III-B-15, and 825 NSR ATC/OP Modification 10 (09/20/06) Condition III-B-1]*
- j. The Permittee shall operate the fire pumps with turbochargers (EUs: LX012 and LX013). *[Title V Renewal (00825_20150629_APP) incorporated into the Title V]*

Cooling Towers

- k. The Permittee shall operate each of the cooling towers with drift eliminators with a manufacturer's maximum drift rate of 0.005 percent (EUs: LX015 through LX019 and LX031 through LX033). *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-B-16 and Minor Title V Revision (00825_20120913_APP) incorporated into the Title V]*
- l. The Permittee not allow the TDS content of each the cooling tower circulation water to exceed 3,000 ppm (EUs: LX015 through LX019 and LX031 through LX033). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V and Minor Title V Revision (00825_20120913_APP) incorporated into the Title V]*

Surface Coating

- m. The Permittee shall not operate spray booths unless all exhaust air passes through appropriate filter media having a particulate capture efficiency of at least 99.0 percent. (This is usually accomplished with tacky filter material that is at least 2 inches thick.) The dry filter media must cover all openings in the spray booth. *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-B-1]*
- n. The Permittee shall not use open containers for storage or disposal of VOC or HAP-containing cloth or paper (excluding masking tape) used for surface preparation and cleanup. *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-B-2]*
- o. All filters or other control equipment associated with surface coating operations shall follow manufacturer's specifications for use and operation. Dry filters must be changed at sufficient intervals to prevent a decrease in their effectiveness and prevent them from clogging. *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-B-5]*

- p. The Permittee shall use a manometer (or equivalent) to monitor the pressure drop across the spray booth filters. The filters should be replaced when the pressure drop exceeds 0.25 inches of water (6.35 millimeters of water), unless the manufacturer's specifications for use indicate a different pressure drop value. *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-B-6]*
- q. The Permittee shall clean surface coating application equipment in an enclosed container to minimize VOC volatilization into the ambient air. *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-B-7]*
- r. All containers with VOC-containing products shall remain securely closed, except during product transfer. Containers shall be inspected regularly for leakage and the contents of any leaking container must be immediately transferred to an appropriately labeled container that has been specifically designed for storage of the compound. *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-B-8]*
- s. The Permittee shall employ good housekeeping practices to prevent the accumulation and/or dispersal of particulate matter from sanding, blasting, surface preparation, etc. carried out in conjunction with surface coating operations. No more than 0.25 inches of particulate matter shall accumulate on surrounding surfaces at any time. *[737 NSR ATC/OP Modification 4 (4/29/04) Condition III-B-6]*

Woodworking

- t. The Permittee shall operate the American Cyclone dust collector during all cutting, sanding, blasting, and surface preparation to control 99% of PM₁₀ emissions (EU: LX023). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

5. Monitoring

Boilers/Water Heaters/Burners

- a. The Permittee shall install and utilize non-resettable hour meters for each applicable boiler (EUs: LX002 through LX006 and LX008). *[AQR 12.5.2.6(d) and 40 CFR 60, Subpart Dc]*
- b. The Permittee shall install and utilize a non-resettable fuel meter on the Believe Show Natural Gas Burner Ring (EU: LX030). *[AQR 12.5.2.6]*

Burner Efficiency Tests

- c. The Permittee operating a boiler with a maximum heat input rating equal to or greater than 4.0 MMBtu/hr but less than 10.0 MMBtu/hr shall perform a burner efficiency test at least once each calendar year. Burner efficiency tests shall be conducted in accordance with the manufacturer's specifications and specifications for good combustion practices (EUs: LX005 and LX006). *[AQR 12.5.2.6(d)]*
- d. The Permittee operating a boiler with a maximum heat input rating of 10.0 MMBtu/hr or greater shall perform burner efficiency tests at least twice each year. The tests shall be performed at least five (5) months but no more than seven (7) months apart during each calendar year (EUs: LX002 through LX004). *[AQR 12.5.2.6(d)]*
- e. The Permittee may choose not to perform a burner efficiency test on that boiler during that calendar year if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 4.0 MMBtu/hr, are zero (0) during a calendar year. *[AQR 12.5.2.6(d)]*

- f. The Permittee may perform a burner efficiency test on that boiler only once during that calendar year if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 10.0 MMBtu/hr, are less than 50 hours during a calendar year. [AQR 12.5.2.6(d)]
- g. A performance test may replace a required burner efficiency test as approved by the Control Officer. [AQR 12.5.2.6(d)]
- h. The results from burner efficiency testing shall not be used to determine an emission unit's compliance status with its corresponding emission limit(s). [AQR 12.5.2.6]

Diesel Generators/Fire Pumps

- i. The Permittee shall operate each emergency generator/fire pump with a nonresettable hour meter and monitor the duration of operation for testing, maintenance and non-emergency operation, and separately for emergencies. The nature of the emergency leading to emergency operation shall be documented (EUs: LX009 through LX013, LX024, and LX025). [AQR 12.5.2.6(d)]

Cooling Towers

- j. The Permittee shall monitor the TDS of the recirculation water for each cooling tower, monthly, using a conductivity meter, or other device approved in advance by the Control Officer. [AQR 12.5.2.6(d)]

Surface Coating

- k. The Permittee shall inspect spray paint booth and all ancillary equipment for leaks, malfunctions, proper operation of gauges and pressure drops each month the booth is operated, and perform appropriate maintenance as needed. A log must be kept of all inspections as well as any corrective actions taken to repair the equipment. [AQR 12.5.2.6(d)]

Visible Emissions

- l. The Permittee shall perform visual emissions checks each calendar quarter on a source-wide level for each diesel-fired emission unit and emitting activity to demonstrate compliance with the opacity limit. If any diesel-fired emission unit or emitting activity does not operate during the calendar quarter, then no observation of that unit or activity shall be required. If visible emissions that appear to exceed the opacity limit(s) are observed, corrective actions shall be taken to minimize the emissions, and, if practicable, the opacity of emissions shall be visually determined in accordance with 40 CFR 60 Appendix A: Reference Method 9. [AQR 12.5.2.6(d)]

6. Testing

Boiler/ Water Heater Performance Tests

- a. Performance testing shall be performed following the procedures provided under 40 CFR 60 (as amended). Performance testing shall be the instrument for determining compliance with emission limitations set forth in this permit for all boilers that have a heat input rating equal to or greater than 10.0 MMBtu/hr (EUs: LX002 through LX004). [AQR 12.5.2.6(d)]
- b. Subsequent performance testing shall be conducted at a frequency of no later than once every 5 years from the previous performance test on that boiler. Subsequent performance testing shall be conducted on emission units LX002 through LX004. [AQR 12.5.2.6(d)]

- c. Performance testing for the applicable boilers shall comply with the testing protocol requirements identified in Table III.G.6.c: [AQR 12.5.2.6(d)]

Table III.G.6.c: Performance Testing Protocol Requirements

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

Note: 40 CFR Part 60, Subpart Dc applies to select emission units at this facility.

7. Record Keeping

- a. The Permittee shall maintain records on site that include, at minimum, the following information: [AQR 12.5.2.6(d)]
- i. monthly and amount of natural gas consumed (in MMBtu, scf, or therms) for each boiler (EUs: LX002 through LX003) [40 CFR 60.48c(g)(2)];
 - ii. monthly amount of diesel fuel purchased (in gallons) for emergency generators and fire pumps (EUs: LX009 through LX013, LX024, and LX025);
 - iii. date and duration of operation of emergency generators and fire pumps for testing, maintenance, and non-emergency use (EUs: LX009 through LX013, LX024, and LX025);
 - iv. date and duration of operation of emergency generators and fire pumps for emergency use, including documentation justifying use during the emergency (EUs: LX009 through LX013, LX024, and LX025);
 - v. monthly monitoring results of TDS content of cooling tower circulation water;
 - vi. MSDS or records demonstrating the VOC content for each compound used for surface coating activities;
 - vii. a log book of all inspections, maintenance, and repairs as specified in this Operating Permit;
 - viii. records of burner efficiency testing as specified in this Operating Permit; and
 - ix. results of performance testing as specified in this Operating Permit.
- b. The Permittee shall maintain on site and report the following information semi-annually: [AQR 12.5.2.6(d)]
- i. monthly and any consecutive 12-month total hours of operation for each boiler and water heater (EUs: LX002 through LX006 and LX008);
 - ii. monthly and any consecutive 12-month total of natural gas consumption for the Believe show (EU: LX030);
 - iii. monthly total of operating hours of emergency generator(s) for testing, maintenance, and non-emergency use (EUs: LX009 through LX013, LX024, and LX025);
 - iv. monthly total of operating hours of emergency generator(s) for emergency use, including documentation justifying use during the emergency (EUs: LX009 through LX013, LX024, and LX025);

- v. monthly and any consecutive 12-month total consumption (in gallons) of each VOC-containing compound related to surface coating activities (paints, basecoats, primers, reducers, thinners, solvents, etc.); and
 - vi. monthly and any consecutive 12-month total hours of woodworking operations (EUs: LX023).
- c. For all inspections, visible emission checks, and testing required under monitoring, logs, reports, and records shall include at least the date and time, the name of the person performing the action, the results or findings, and the type of corrective action taken (if required). [AQR 12.5.2.6(d)]

H. EXCALIBUR

1. Emission Units

- a. The stationary source covered by the Part 70 OP consists of the emission units and associated appurtenances summarized in Table III.H.1.a. [609 NSR ATC/OP Modification 1 (03/03/02), 825 NSR ATC Modification 13 (12/31/09), Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V, Minor Title V Revision (00825_20120913_APP) incorporated into the Title V, and Title V Renewal (00825_20150629_APP) incorporated into the Title V]

Table III.H.1.a: Summary of Emission Units – Excalibur

EU	Rating	Type	Manufacturer	Model No.	Serial No.
EX001	29.3 MMBtu/hr	Boiler	Superior	700 W	2380
EX002	29.3 MMBtu/hr	Boiler	Superior	700 W	2381
EX003	29.3 MMBtu/hr	Boiler	Superior	700 W	2382
EX004	2.1 MMBtu/hr	Water Heater	Lochinvar	CSN2065	C014610
EX005	2.1 MMBtu/hr	Water Heater	Lochinvar	CSN2070	L02H00149907
EX006	2.2 MMBtu/hr	Water Heater	Teledyne	AP2200EN18CC	C93C01615
EX007	1,592 hp	Diesel Emergency Generator	Caterpillar	3512	24Z02774
EX008	1,592 hp	Diesel Emergency Generator	Caterpillar	3512	24Z02784
EX009	1,592 hp	Diesel Emergency Generator	Caterpillar	3512	24Z02770
EX010	1,592 hp	Diesel Emergency Generator	Caterpillar	3512	24Z02753
EX011	270 hp	Diesel Emergency Fire Pump	Caterpillar	PL927-89	03Z8914
EX012	350 hp	Diesel Emergency Fire Pump	Caterpillar	3406B	6TB05883
EX013	3,300 gpm	Cooling Tower	Baltimore Aircoil	33424-2X	97222481

EU	Rating	Type	Manufacturer	Model No.	Serial No.
EX014	3,300 gpm	Cooling Tower	Baltimore Aircoil	33424-2X	97222462
EX015	3,300 gpm	Cooling Tower	Baltimore Aircoil	33424-2X	97222472
EX016	21'x24'x10'	Spray Booth	Sprayline	FDG20249	FAF24U
EX018	64.4 hp	Diesel Emergency Generator	Spectrum 30	30DS60	354543
EX019		Carpentry Shop with Dust Collector	Murphy-Rodgers	MRM-124D	1553
EX020	0.99 MMBtu/hr	Pool Heater	Lochinvar	CPN 0991	CO7H00196350
EX021	1.8 MMBtu/hr	Pool Heater	Lochinvar	CPN 1801	CO7H00196352
EX025	0.199 MMBtu/hr	Hot Water Heater	A.O. Smith	BTH 199-970	MLO300-02-3147
EX026	0.199 MMBtu/hr	Hot Water Heater	A.O. Smith	BTH 199-970	MLO300-02-3146
EX027	0.27 MMBtu/hr	Pool Heater	Raypak	C-R267A-EN-C	411227811
EX028	0.25 MMBtu/hr	Spa Heater	Raypak	C-R266A-EN-C	1008313339
EX029	0.25 MMBtu/hr	Spa Heater	Raypak	C-R266-A-EN-C	04111227811
EX030	0.25 MMBtu/hr	Spa Heater	Raypak	C-R266-A-EN-C	1106325858
EX031	1.90 MMBtu/hr	Boiler	Patterson-Kelley	N-1900-2	CK38-98-9543
EX032	207 hp	Diesel Emergency Generator	Cummins	6CT8.3-G2	45748231
EX033	600 gpm	Cooling Tower	Baltimore Aircoil	F1462-PM	99201761
EX034	174 hp	Diesel Emergency Generator	Cummins	B5.9-C	21337208
EX035	174 hp	Diesel Emergency Generator	Cummins	B5.9-C	21337209

2. Emission Limitations

- a. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.H.2.a. *[609 NSR ATC/OP Modification 1 (03/03/02), 825 NSR ATC Modification 13 (12/31/09), Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V, Minor Title V Revision (00825_20120913_APP) incorporated into the Title V, and Title V Renewal (00825_20150629_APP) incorporated into the Title V]*

Table III.H.2.a: PTE (tons per year) – Excalibur and Tram

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
EX001	29.30 MMBtu/hr	1.31	1.31	5.52	11.60	0.10	0.95	0.32
EX002	29.30 MMBtu/hr							
EX003	29.30 MMBtu/hr							
EX004	2.1 MMBtu/hr	0.07	0.07	0.34	0.34	0.01	0.05	0.02
EX005	2.1 MMBtu/hr	0.07	0.07	0.34	0.34	0.01	0.05	0.02
EX006	2.2 MMBtu/hr	0.07	0.07	0.35	0.36	0.01	0.05	0.02
EX007	1,592 hp	0.28	0.28	9.55	2.19	0.01	0.28	0.01
EX008	1,592 hp	0.28	0.28	9.55	2.19	0.01	0.28	0.01
EX009	1,592 hp	0.28	0.28	9.55	2.19	0.01	0.28	0.01
EX010	1,592 hp	0.28	0.28	9.55	2.19	0.01	0.28	0.01
EX011	270 hp	0.15	0.15	2.09	0.45	0.01	0.17	0.01
EX012	350 hp	0.19	0.19	2.71	0.58	0.01	0.22	0.01
EX013	3,300 gpm	0.51	0.51	0.00	0.00	0.00	0.00	0.00
EX014	3,300 gpm	0.51	0.51	0.00	0.00	0.00	0.00	0.00
EX015	3,300 gpm	0.51	0.51	0.00	0.00	0.00	0.00	0.00
EX016		0.01	0.01	0.00	0.00	0.00	0.80	0.12
EX018	64.4 hp	0.04	0.04	0.50	0.11	0.01	0.04	0.01
EX019		0.01	0.01	0.00	0.00	0.00	0.00	0.00
EX020	0.99 MMBtu/hr	0.03	0.03	0.16	0.32	0.01	0.02	0.01
EX021	1.8 MMBtu/hr	0.06	0.06	0.29	0.59	0.01	0.04	0.01
EX025	0.199 MMBtu/hr	0.01	0.01	0.06	0.03	0.01	0.01	0.01
EX026	0.199 MMBtu/hr	0.01	0.01	0.06	0.03	0.01	0.01	0.01
EX027	0.27 MMBtu/hr	0.01	0.01	0.08	0.05	0.01	0.01	0.01
EX028	0.25 MMBtu/hr	0.01	0.01	0.11	0.09	0.01	0.01	0.01
EX029	0.25 MMBtu/hr	0.01	0.01	0.11	0.09	0.01	0.01	0.01
EX030	0.25 MMBtu/hr	0.01	0.01	0.11	0.09	0.01	0.01	0.01
EX031	1.90 MMBtu/hr	0.06	0.06	0.30	0.31	0.01	0.04	0.02
EX032	207 hp	0.11	0.11	1.60	0.35	0.01	0.13	0.01
EX033	600 gpm	0.18	0.18	0.00	0.00	0.00	0.00	0.00
EX034	174 hp	0.10	0.10	1.35	0.29	0.01	0.11	0.01
EX035	174 hp	0.10	0.10	1.35	0.29	0.01	0.11	0.01

b. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.H.2.b. [609 NSR ATC/OP Modification 1 (03/03/02)]

Table III.H.2.b: PTE (pounds per hour) – Excalibur

EU	Rating	NO _x	CO
EX001	29.30 MMBtu/hr	0.92	1.93
EX002	29.30 MMBtu/hr	0.92	1.93
EX003	29.30 MMBtu/hr	0.92	1.93

c. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. [AQR 26.1.1]

3. Operational Limitations

- a. The Permittee shall limit the operation of the boilers rated at 29.3 MMBtu/hr to 12,000 hours per any consecutive 12-months as a group (EUs: EX001 through EX003). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- b. The Permittee shall limit the operation of the emergency generators and fire pumps (EUs: EX007 through EX012, EX018, EX032, EX034, and EX035) for testing and maintenance purposes to 100 hours per calendar year. The Permittee may operate the emergency generators up to 50 hours per calendar year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. The 50 hours per calendar year for nonemergency situations cannot be used for peak shavings or to generate income for the facility. *[40 CFR 63.6640]*
- c. The Permittee shall limit the consumption of VOC-containing paints, basecoats, primers, reducers, inks, thinners, solvents, etc. from the spray booth (EU: EX016) to 900 gallons per any consecutive 12-months, based on an average VOC content of 1.78 pounds per gallon and 47 percent HAP content. *[609 NSR ATC/OP Modification 1 (03/03/02) Condition III-A-5]*
- d. The Permittee shall operate the Murphy Rodgers dust collector at all times PM₁₀ is emitted during the use of the carpentry shop (EU: EX019). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-E-3-c]*
- e. The Permittee shall limit the operation of the shop to 1,200 hours per any consecutive 12-months (EU: EX019). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-E-3-c]*

4. Control Requirements

Boilers/Water Heaters

- a. The Permittee shall combust only natural gas in all boilers and water heaters. *[609 NSR ATC/OP Modification 1 (03/03/02) Condition III-B-1]*
- b. The Permittee shall operate and maintain all boilers and water heaters in accordance with the manufacturer's specifications. *[609 NSR ATC/OP Modification 1 (03/03/02) Condition III-B-2]*
- c. The Permittee shall operate each of the 2.1 MMBtu/hr water heaters with burners rated for maximum emission rates of 30 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EUs: EX004 and EX005). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- d. The Permittee shall operate the 2.2 MMBtu/hr water heater with burners rated for maximum emission rates of 30 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EU: EX006). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- e. The Permittee shall operate the 0.99 MMBtu/hr pool heater with burners rated for maximum emission rates of 30 ppmv NO_x and 100 ppmv CO, corrected to three percent oxygen (EU: EX020). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-E-2-c]*
- f. The Permittee shall operate the 1.8 MMBtu/hr pool heater with burners rated for maximum emission rates of 30 ppmv NO_x and 100 ppmv CO, corrected to three percent oxygen (EU: EX021). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-E-2-d]*

- g. The Permittee shall operate each of the 0.25 MMBtu/hr spa heaters with burners rated for maximum emission rates of 80 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EUs: EX028 through EX030). *[Minor Title V Revision (00825_20120913_APP) incorporated into the Title V]*
- h. The Permittee shall operate each of the two hot water heaters and Raypak pool heater with burners rated for maximum emission rates of 55 ppmv NO_x and 53 ppmv CO, corrected to three percent oxygen (EUs: EX025 through EX027). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-E-2-f]*
- i. The Permittee shall operate the boiler with burners rated for maximum emission rates of 30 ppmv NO_x and 100 ppmv CO, corrected to three percent oxygen (EU: EX031). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

Diesel Generators/Fire Pumps

- j. The Permittee shall operate and maintain all diesel generators and fire pumps in accordance with the manufacturer's specifications. *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- k. The Permittee shall combust only diesel fuel in all diesel generators and fire pumps. *[40 CFR 63, Subpart ZZZZ (63.6604)]*
- l. The Permittee shall operate each of diesel emergency generators and fire pumps with turbochargers (EUs: EX007 through EX012, EX018 and EX032). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-E-4-a]*
- m. The Permittee shall operate each of the diesel emergency generators with turbochargers and aftercoolers (EUs: EX034 and EX035). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-H-4-a]*

Cooling Towers

- n. The Permittee shall operate each of the three cooling towers with drift eliminators with a manufacturer's maximum drift rate of 0.005 percent (EUs: EX013 through EX015). *[609 NSR ATC/OP Modification 1 (03/03/02) Condition III-B-5]*
- o. The Permittee shall not allow the TDS content of each the cooling tower circulation water to exceed 3,000 ppm (EUs: EX013 through EX015 and EX033). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- p. The Permittee shall operate the cooling tower with drift eliminators with a manufacturer's maximum drift rate of 0.002 percent (EU: EX033). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*

Surface Coating

- q. The Permittee shall not operate spray booths unless all exhaust air passes through appropriate filter media having a particulate capture efficiency of at least 99.0 percent. (This is usually accomplished with tacky filter material that is at least 2 inches thick.) The dry filter media must cover all openings in the spray booth. *[AQR 12.5.2.6(a)]*
- r. The Permittee shall use covered containers for storage or disposal of VOC or HAP-containing cloth or paper (excluding masking tape) used for surface preparation and cleanup. *[AQR 12.5.2.6(a)]*
- s. All filters or other control equipment associated with surface coating operations shall follow manufacturer's specifications for use and operation. Dry filters must be changed at

sufficient intervals to prevent a decrease in their effectiveness and prevent them from clogging. [AQR 12.5.2.6(a)]

- t. The Permittee shall use a manometer (or equivalent) to monitor the pressure drop across the spray booth filters. The filters should be replaced when the pressure drop exceeds 0.25 inches of water (6.35 millimeters of water), unless the manufacturer's specifications for use indicate a different pressure drop value. [AQR 12.5.2.6(a)]
- u. The Permittee shall clean surface coating application equipment in an enclosed container to minimize VOC volatilization into the ambient air. [AQR 12.5.2.6(a)]
- v. All containers with VOC-containing products shall remain securely closed, except during product transfer. Containers shall be inspected regularly for leakage and the contents of any leaking container must be immediately transferred to an appropriately labeled container that has been specifically designed for storage of the compound. [AQR 12.5.2.6(a)]
- w. The Permittee shall employ good housekeeping practices to prevent the accumulation and/or dispersal of particulate matter from sanding, blasting, surface preparation, etc. carried out in conjunction with surface coating operations. No more than 0.25 inches of particulate matter shall accumulate on surrounding surfaces at any time. [AQR 12.5.2.6(a)]

Woodworking

- x. The Permittee shall operate the Murphy-Rodgers dust collector during all cutting, sanding, blasting, and surface preparation to control 99% of PM₁₀ emissions during all cutting, sanding, blasting, and surface preparation to control 99% of PM₁₀ emissions (EUs: EX019). [825 NSR ATC Modification 13 (12/31/09) Condition IV-E-4-c)]

5. Monitoring

Boilers/Water Heaters

- a. The Permittee shall install and utilize non-resettable hour meters such that the monthly consumption of natural gas can be established for each applicable boiler (EUs: EX001 through EX003). [AQR 12.5.2.6 and 40 CFR 60, Subpart Dc]

Burner Efficiency Tests

- b. The Permittee operating a boiler with a maximum heat input rating of 10.0 MMBtu/hr or greater shall perform burner efficiency tests at least twice each year. The tests shall be performed at least five (5) months but no more than seven (7) months apart during each calendar year (EUs: EX001 through EX003). [AQR 12.5.2.6(d)]
- c. The Permittee may choose not to perform a burner efficiency test on that boiler during that calendar year if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 4.0 MMBtu/hr, are zero (0) during a calendar year. [AQR 12.5.2.6(d)]
- d. The Permittee may perform a burner efficiency test on that boiler only once during that calendar year if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 10.0 MMBtu/hr, are less than 50 hours during a calendar year. [AQR 12.5.2.6(d)]

- e. A performance test may replace a required burner efficiency test as approved by the Control Officer. [AQR 12.5.2.6(d)]
- f. The results from burner efficiency testing shall not be used to determine an emission unit's compliance status with its corresponding emission limit(s). [AQR 12.5.2.6]

Diesel Generators/Fire Pumps

- g. The Permittee shall operate each emergency generator/fire pump with a non-resettable hour meter and monitor the duration of operation for testing, maintenance and non-emergency operation, and separately for emergencies. The nature of the emergency leading to emergency operation shall be documented (EUs: EX007 through EX012, EX018, EX032, EX034, and EX035). [AQR 12.5.2.6(d)]

Cooling Towers

- h. The Permittee shall monitor the TDS of the recirculation water for each cooling tower, monthly, using a conductivity meter, or other device approved in advance by the Control Officer. [AQR 12.5.2.6(d)]

Surface Coating

- i. The Permittee shall inspect spray paint booth and all ancillary equipment for leaks, malfunctions, proper operation of gauges and pressure drops each month the booth is operated, and perform appropriate maintenance as needed. A log must be kept of all inspections as well as any corrective actions taken to repair the equipment. [AQR 12.5.2.6(d)]

Visible Emissions

- j. The Permittee shall perform visual emissions checks each calendar quarter on a source-wide level for each diesel-fired emission unit and emitting activity to demonstrate compliance with the opacity limit. If any diesel-fired emission unit or emitting activity does not operate during the calendar quarter, then no observation of that unit or activity shall be required. If visible emissions that appear to exceed the opacity limit(s) are observed, corrective actions shall be taken to minimize the emissions, and, if practicable, the opacity of emissions shall be visually determined in accordance with 40 CFR 60 Appendix A: Reference Method 9. [AQR 12.5.2.6(d)]

6. Testing

- a. No performance testing requirements have been identified for emission units at Excalibur. [AQR 12.5.2.6(d)]

7. Record Keeping

- a. The Permittee shall maintain records on site that include, at minimum, the following information: [AQR 12.5.2.6(d)]
 - i. monthly amount of natural gas consumed (in MMBtu, scf, or therms) for each boiler (EUs: EX001 through EX003); [40 CFR 60.48c(g)(2)]
 - ii. monthly amount of diesel fuel purchased (in gallons) for emergency generators and fire pumps (EUs: EX007 through EX012, EX018, EX032, EX034, and EX035);

- iii. date and duration of operation of emergency generators and fire pumps for testing, maintenance, and non-emergency use (EUs: EX007 through EX012, EX018, EX032, EX034, and EX035);
 - iv. date and duration of operation of emergency generators and fire pumps for emergency use, including documentation justifying use during the emergency (EUs: EX007 through EX012, EX018, EX032, EX034, and EX035);
 - v. monthly monitoring results of TDS content of cooling tower circulation water;
 - vi. MSDS or records demonstrating the VOC content for each compound used for surface coating activities;
 - vii. a log book of all inspections, maintenance, and repairs as specified in this Operating Permit;
 - viii. records of burner efficiency testing as specified in this Operating Permit; and
 - ix. results of performance testing as specified in this Operating Permit.
- b. The Permittee shall maintain on site and report the following information semi-annually: *[AQR 12.5.2.6(d)]*
- i. monthly and any consecutive 12-month total of operating hours for each boiler and water heater (EUs: EX001 through EX003);
 - ii. monthly total of operating hours of emergency generator(s) for testing, maintenance, and non-emergency use (EUs: EX007 through EX012, EX018, EX032, EX034, and EX035);
 - iii. monthly total of operating hours of emergency generator(s) for emergency use, including documentation justifying use during the emergency (EUs: EX007 through EX012, EX018, EX032, EX034, and EX035);
 - iv. monthly and any consecutive 12-month total consumption (in gallons) of each VOC-containing compound related to surface coating activities (paints, basecoats, primers, reducers, thinners, solvents, etc.); and
 - v. monthly and any consecutive 12-month total hours of woodworking operations (EUs: EX019).
- c. For all inspections, visible emission checks, and testing required under monitoring, logs, reports, and records shall include at least the date and time, the name of the person performing the action, the results or findings, and the type of corrective action taken (if required). *[AQR 12.5.2.6(d)]*

I. BELLAGIO

1. Emission Units

- a. The stationary source covered by the Part 70 OP consists of the emission units and associated appurtenances summarized in Table III.I.1.a. *[756 NSR ATC/OP Modification 0 (03/20/00), 756 NSR ATC/OP Modification 3 (05/31/05), 825 NSR ATC/OP Modification 12 (09/10/07), 825 NSR ATC Modification 13 (12/31/09), Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V, Minor Title V Revision (00825_20120913_APP) incorporated into the Title V, Title V Application*

(00825_20130606_APP) incorporated into the Title V, and Title V Renewal
(00825_20150629_APP) incorporated into the Title V]

Table III.I.1.a: Summary of Emission Units – Bellagio

EU	Rating	Type	Manufacturer	Model No.	Serial No.
BE07	2.0 MMBtu/hr	Boiler	Bryan Steam Corp.	RV200S	81606
BE09	3.5 MMBtu/hr	Pool Heater	Raypak	P-3500	9801146092
BE10	3.0 MMBtu/hr	Pool Heater	Raypak	P-3001	9801146003
BE32	1.0 MMBtu/hr	Water Heater	Aerco		G-97-201
BE35	1.0 MMBtu/hr	Water Heater	Aerco		G-97-205
BE37	1.0 MMBtu/hr	Water Heater	Aerco		G-96-471
BE38	1.0 MMBtu/hr	Water Heater	Aerco		G-97-210
BE57	1.0 MMBtu/hr	Water Heater	Aerco		G-96-517
BE58	1.0 MMBtu/hr	Water Heater	Aerco		G-96-498
BE59	1.0 MMBtu/hr	Water Heater	Aerco		G-96-514
BE68	1.36 MMBtu/hr (See BE097)	Spray Booth Heater	Banza		3061000.154
BE74	18 MMBtu/hr (burner rated at 14.7 MMBtu/hr)	Boiler	Bryan		91446
BE75	18 MMBtu/hr (burner rated at 14.7 MMBtu/hr)	Boiler	Bryan		91388
BE76	18 MMBtu/hr (burner rated at 14.7 MMBtu/hr)	Boiler	Bryan		91416
BE80	2,520 hp	Diesel Emergency Generator	Caterpillar	3416	25Z05330
BE81	2,520 hp	Diesel Emergency Generator	Caterpillar	3416	25Z05335
BE82	2,520 hp	Diesel Emergency Generator	Caterpillar	3416	25Z05333
BE83	2,520 hp	Diesel Emergency Generator	Caterpillar	3416	25Z05332
BE84	2,520 hp	Diesel Emergency Generator	Caterpillar	3416	25Z05339
BE85	2,520 hp	Diesel Emergency Generator	Caterpillar	3416	25Z05338
BE86	2,520 hp	Diesel Emergency Generator	Caterpillar	3416	25Z05340
BE87	2,520 hp	Diesel Emergency Generator	Caterpillar	3416	1LZ00545
BE88	2,520 hp	Diesel Emergency	Caterpillar	3416	1LZ00546

EU	Rating	Type	Manufacturer	Model No.	Serial No.
		Generator			
BE89	55.2 hp	Diesel Emergency Generator	Whisper Watt		7200884
BE90	33,750 gpm (9-Cell)	Cooling Tower	Ceramic	PCS2187	
BE91	3,000 gpm	Cooling Tower	Baltimore		U040161301MAD
BE92	3,000 gpm	Cooling Tower	Baltimore		U040161302MAD
BE93	3,000 gpm	Cooling Tower	Baltimore		U040161303MAD
BE94	140 gpm	Cooling Tower	Baltimore		U041435902MAD
BE95	140 gpm	Cooling Tower	Baltimore		U041435901MAD
BE96	14'W x 9'H x 26'D	Spray Booth	Binks	AA-530	
BE97	13' x 14' x 23'-10" Pressurized Dry Filter Booth	Spray Booth (Showroom)	Binks	I-121217	
BE98	7' x 7' x 5'	Spray Booth (Closet)	Binks	I-121217	
BE99		Powder Coating Booth	Nordson power System; Grieve Electric Oven		00497-8; 64130
BE100		Solvent Degreasing Operations			
BE101	764 hp	Diesel Emergency Generator	Caterpillar	CAT 3456	7WG03957
BE102	1.999 MMBtu/hr	Boiler	RBI Futera	MW2000	50746069
BE103	1.999 MMBtu/hr	Boiler	RBI Futera	MW2000	50746070
BE104	1.999 MMBtu/hr	Boiler	RBI Futera	MW2000	50746071
BE105	1.999 MMBtu/hr	Boiler	RBI Futera	MW2000	50746072
BE106	1.0 MMBtu/hr	Boiler	RBI Futera	MW1000	50746087
BE107	1.0 MMBtu/hr	Boiler	RBI Futera	MW1000	50746088
BE108	5,000 gallon (3,700 gallons gasoline/1,300 gallons diesel)	Aboveground storage tank	SuperVault MH5000	Gasboy Dispenser 9852AX	Emco Wheaton Balance Nozzle
BE109		Carpentry Shop with Dust Collector	Aget	FT64-SP & 90B70-SP	1792 & 912
BE110		Carpentry Shop with Dust Collector	Torit	VS2400	IG465155
BE111	2.1 MMBtu/hr	Boiler	Hurst	Series 400 Wetback	S300-150-36
BE112	0.264 MMBtu/hr	Water Heater	Raypak	RP2100 C- R265B-EN	410227265
BE113	0.266 MMBtu/hr	Pool Heater	Raypak	C-R267A-EN-	506237175

EU	Rating	Type	Manufacturer	Model No.	Serial No.
				C	
BE114	0.5115 MMBtu/hr	Pool Heater	Raypak	P-0514	412229726
BE116	0.266 MMBtu/hr	Water Heater	Raypak	C-R267A-EN- C ASME	412229039
BE117	0.266 MMBtu/hr	Water Heater	Raypak	C-R267A-EN- C ASME	412229044
BE118	0.1995 MMBtu/hr	Water Heater	Raypak	C-R206A-EN ASME	510242278
BE119	1.0 MMBtu/hr	Boiler	RBI	MW1000	80953935
BE120	1.0 MMBtu/hr	Boiler	RBI	MW1000	80953938
BE121	1.0 MMBtu/hr	Boiler	RBI	MW1000	80953876
BE122	1.0 MMBtu/hr	Boiler	RBI	MW1000	80953937
BE123	1.999 MMBtu/hr	Boiler	RBI	MW1000	80953927
BE124	1.999 MMBtu/hr	Boiler	RBI	MW1000	809539326
BE125	4.20 MMBtu/hr	Boiler	Hurst	A4-G-100-150	S500-150-191
BE126	5.25 MMBtu/hr	Boiler	Hurst	S4-G-125-150	S625-150-96
BE127	1.06 MMBtu/hr	Boiler	Aerco	INN1060	G10-2456
BE128	0.1995 MMBtu/hr	Spa Heater	Raypak	C-R207A-EN-C ASME	1001305556
BE129	0.1995 MMBtu/hr	Spa Heater	Raypak	C-R207A-EN-C ASME	0909300852
BE130	0.1995 MMBtu/hr	Spa Heater	Raypak	C-R207A-EN-C ASME	1112334063
BE131	20.0 MMBtu/hr	Boiler	Hurst	S4-X-500-60W	S2500-60W-1
BE132	1.999 MMBtu/hr	Boiler	RBI	CW2000	011466678
BE133	0.2641 MMBtu/hr	Pool Heater	Raypak	BR265EN	9710143276

2. Emission Limitations

- a. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.I.2.a. *[756 NSR ATC/OP Modification 0 (03/20/00), 756 NSR ATC/OP Modification 3 (05/31/05), 825 NSR ATC/OP Modification 12 (09/10/07), 825 NSR ATC Modification 13 (12/31/09), Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V, Minor Title V Revision (00825_20120913_APP) incorporated into the Title V, Title V Application (00825_20130606_APP) incorporated into the Title V, and Title V Renewal (00825_20150629_APP) incorporated into the Title V]*

Table III.I.2.a: PTE (tons per year) – Bellagio

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
BE07	2.0 MMBtu/hr	0.04	0.04	0.23	0.39	0.01	0.03	0.01
BE09	3.5 MMBtu/hr	0.11	0.11	0.75	1.26	0.01	0.08	0.03
BE10	3.0 MMBtu/hr	0.10	0.10	0.64	1.08	0.01	0.07	0.02
BE32	1.0 MMBtu/hr	0.03	0.03	0.16	0.16	0.01	0.02	0.01
BE35	1.0 MMBtu/hr	0.03	0.03	0.16	0.16	0.01	0.02	0.01
BE37	1.0 MMBtu/hr	0.03	0.03	0.16	0.16	0.01	0.02	0.01
BE38	1.0 MMBtu/hr	0.03	0.03	0.16	0.16	0.01	0.02	0.01
BE57	1.0 MMBtu/hr	0.03	0.03	0.16	0.16	0.01	0.02	0.01
BE58	1.0 MMBtu/hr	0.03	0.03	0.16	0.16	0.01	0.02	0.01
BE59	1.0 MMBtu/hr	0.03	0.03	0.16	0.16	0.01	0.02	0.01
BE68	1.36 MMBtu/hr	0.04	0.04	0.08	0.22	0.01	0.03	0.01

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
BE74	14.7 MMBtu/hr	0.48	0.48	0.92	2.33	0.04	0.35	0.12
BE75	14.7 MMBtu/hr	0.48	0.48	0.92	2.33	0.04	0.35	0.12
BE76	14.7 MMBtu/hr	0.48	0.48	0.92	2.33	0.04	0.35	0.12
BE80	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
BE81	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
BE82	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
BE83	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
BE84	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
BE85	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
BE86	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.44	0.02
BE87	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.41	0.02
BE88	2,520 hp	0.44	0.44	15.12	3.47	0.01	0.41	0.02
BE89	55.2 hp	0.03	0.03	0.43	0.09	0.01	0.03	0.01
BE90	33,750 gpm	1.57	1.57	0.00	0.00	0.00	0.00	0.00
BE91	3,000 gpm	0.70	0.70	0.00	0.00	0.00	0.00	0.00
BE92	3,000 gpm	0.70	0.70	0.00	0.00	0.00	0.00	0.00
BE93	3,000 gpm	0.70	0.70	0.00	0.00	0.00	0.00	0.00
BE94	140 gpm	0.01	0.01	0.00	0.00	0.00	0.00	0.00
BE95	140 gpm	0.01	0.01	0.00	0.00	0.00	0.00	0.00
BE96	7.90 lbs/gal	0.01	0.01	0.00	0.00	0.00	1.73	0.81
BE97	7.9 lbs/gal	0.01	0.01	0.00	0.00	0.00	0.24	0.11
BE98	7.42 lbs/gal	0.01	0.01	0.00	0.00	0.00	1.73	0.81
BE99	9.1 lbs/gal	0.01	0.01	0.00	0.00	0.00	0.01	0.01
BE100	6.8 lbs/gal VOC	0.00	0.00	0.00	0.00	0.00	2.24	2.24
BE101	764 hp	0.13	0.13	4.58	1.05	0.01	0.13	0.01
BE102	1.999 MMBtu/hour	0.07	0.07	0.11	0.32	0.01	0.05	0.02
BE103	1.999 MMBtu/hour	0.07	0.07	0.11	0.32	0.01	0.05	0.02
BE104	1.999 MMBtu/hour	0.07	0.07	0.11	0.32	0.01	0.05	0.02
BE105	1.999 MMBtu/hour	0.07	0.07	0.11	0.32	0.01	0.05	0.02
BE106	1.0 MMBtu/hour	0.03	0.03	0.05	0.16	0.01	0.02	0.01
BE107	1.0 MMBtu/hour	0.03	0.03	0.05	0.16	0.01	0.02	0.01
BE108	3,700 gallons	0.00	0.00	0.00	0.00	0.00	0.44	0.01
BE109	N/A	0.03	0.03	0.00	0.00	0.00	0.00	0.00
BE110	N/A	0.01	0.01	0.00	0.00	0.00	0.00	0.00
BE111	2.1 MMBtu/hr	0.07	0.07	0.22	0.34	0.01	0.05	0.02
BE112	0.264 MMBtu/hr	0.01	0.01	0.08	0.05	0.01	0.01	0.01
BE113	0.266 MMBtu/hr	0.01	0.01	0.08	0.05	0.01	0.01	0.01
BE114	0.5115 MMBtu/hr	0.02	0.02	0.15	0.09	0.01	0.01	0.01
BE116	0.266 MMBtu/hr	0.01	0.01	0.08	0.05	0.01	0.01	0.01
BE117	0.266 MMBtu/hr	0.01	0.01	0.08	0.05	0.01	0.01	0.01
BE118	0.1995 MMBtu/hr	0.01	0.01	0.06	0.03	0.01	0.01	0.01
BE119	1.0 MMBtu/hr	0.03	0.03	0.11	0.16	0.01	0.02	0.01
BE120	1.0 MMBtu/hr	0.03	0.03	0.11	0.16	0.01	0.02	0.01
BE121	1.0 MMBtu/hr	0.03	0.03	0.11	0.16	0.01	0.02	0.01
BE122	1.0 MMBtu/hr	0.03	0.03	0.11	0.16	0.01	0.02	0.01
BE123	1.999 MMBtu/hr	0.07	0.07	0.21	0.32	0.01	0.05	0.02
BE124	1.999 MMBtu/hr	0.07	0.07	0.21	0.32	0.01	0.05	0.02
BE125	4.20 MMBtu/hr	0.14	0.14	0.90	1.51	0.01	0.10	0.03
BE126	5.25 MMBtu/hr	0.17	0.17	1.13	1.89	0.01	0.12	0.04
BE127	1.06 MMBtu/hr	0.03	0.03	0.23	0.38	0.01	0.03	0.01
BE128	0.1995 MMBtu/hr	0.01	0.01	0.09	0.07	0.01	0.01	0.01
BE129	0.1995 MMBtu/hr	0.01	0.01	0.09	0.07	0.01	0.01	0.01

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
BE130	0.1995 MMBtu/hr	0.01	0.01	0.09	0.07	0.01	0.01	0.01
BE131	20.0 MMBtu/hr	0.66	0.66	2.14	3.25	0.05	0.47	0.17
BE132	1.999 MMBtu/hr	0.07	0.07	0.86	0.72	0.01	0.05	0.02
BE133	0.2641 MMBtu/hr	0.01	0.01	0.11	0.10	0.01	0.01	0.01

- b. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.I.2.b. *[756 NSR ATC/OP Modification 3 (05/31/05)]*

Table III.I.2.b: PTE (pounds per hour) – Bellagio

EU	Rating	NO _x	CO
BE74	14.7 MMBtu/hr	0.21	0.53
BE75	14.7 MMBtu/hr	0.21	0.53
BE76	14.7 MMBtu/hr	0.21	0.53
BE131	20.0 MMBtu/hr	0.49	0.71

- c. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. *[AQR 26.1.1]*

3. Operational Limitations

- a. The Permittee shall limit the operation of the 2.0 MMBtu/hr boiler to 4,745 hours per any consecutive 12-months (EU: BE07). *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-A-4]*
- b. The Permittee shall limit the operation of the emergency generators (EUs: BE80 through BE89 and BE101) for testing and maintenance purposes to 100 hours per calendar year. The Permittee may operate the emergency generators up to 50 hours per calendar year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. The 50 hours per calendar year for nonemergency situations cannot be used for peak shavings or to generate income for the facility. *[40 CFR 63.6640(f)(1)]*
- c. The Permittee shall limit the consumption of VOC containing paints, basecoats, primers, reducers, thinners, solvents, etc., to 621 gallons per any consecutive 12-months based on a weighted average VOC content of 7.90 pounds per gallon for each surface coating operation (EUs: BE96 and BE97). *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-A-24]*
- d. The Permittee shall limit the consumption of VOC containing paints, basecoats, primers, reducers, thinners, solvents, etc., to 100 gallons per any consecutive 12-months for the Binks spray paint booth in the closet based on a weighted average VOC content of 7.42 pounds per gallon (EU: BE98). *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-A-25]*
- e. The Permittee shall limit the consumption of VOC containing powder coating to 910 gallons per any consecutive 12-months for the Binks spray paint booth in the showroom (EU: BE99). *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-A-26]*
- f. The Permittee shall limit the consumption of VOC containing degreasers to 660 gallons per any consecutive 12-months, based on a VOC content limit of 6.8 pounds per gallon (EU: BE100). *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-A-27]*
- g. The Permittee shall limit the maximum amount of throughput, aggregate of all gasoline products, to 264,000 gallons of gasoline per any consecutive 12-months for the aboveground storage tank (EU: BE108). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-F-3-b]*

- h. The Permittee shall limit the operation of the shop to 2,600 hours per any consecutive 12-months (EU: BE109). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-F-3-c]*
- i. The Permittee shall operate the Aget dust collector at all times PM₁₀ is emitted during the use of the respective shop (EU: BE109). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-F-3-c]*
- j. The Permittee shall limit the operation of the shop to 1,200 hours per any consecutive 12-months (EU: BE110). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-F-3-d]*
- k. The Permittee shall operate the Torit dust collector at all times PM₁₀ is emitted during the use of the respective shop (EU: BE110). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-F-3-d]*

4. Control Requirements

Boilers/Water Heaters

- a. The Permittee shall combust only natural gas in all boilers and water heaters. *[825 NSR ATC/OP Modification 12 (09/10/07) Condition IV-B-1]*
- b. The Permittee shall operate and maintain all boilers and water heaters in accordance with the manufacturer's specifications. *[825 NSR ATC/OP Modification 12 (09/10/07) Condition IV-B-2]*
- c. The Permittee shall operate the 2.0 MMBtu/hr boiler with burners rated for maximum emission rates of 40 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EU: BE07). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- d. The Permittee shall operate the 3.5 MMBtu/hr pool heater with burners rated for maximum emission rates of 40 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EU: BE09). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- e. The Permittee shall operate the 3.0 MMBtu/hr pool heater with burners rated for maximum emission rates of 40 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EU: BE10). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- f. The Permittee shall operate the 1.0 MMBtu/hr water heaters with burners rated for maximum emission rates of 30 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EUs: BE32, BE35, and BE57 through BE59). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- g. The Permittee shall operate the Spray Booth Heater with burners rated for maximum emission rates of 12 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EU: BE68). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- h. The Permittee shall operate the 14.7 MMBtu/hr boilers with burners rated for maximum emission rates of 12 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EUs: BE74 through BE76). *[Title V Application (00825_T5_R00_20080523_SUP-2) incorporated into the Title V]*
- i. The Permittee shall operate the 1.0 MMBtu/hr boilers with burners rated for maximum emission rates of 10 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EUs: BE102 and BE103). *[825 NSR ATC/OP Modification 12 (09/10/07) Conditions IV-B-3 and IV-B-4]*
- j. The Permittee shall operate the 1.999 MMBtu/hr boilers with burners rated for maximum emission rates of 10 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EUs:

BE104 through BE107). *[825 NSR ATC/OP Modification 12 (09/10/07) Conditions IV-B-3 and IV-B-4]*

- k. The Permittee shall operate the 2.1 MMBtu/hr boiler with burners rated for maximum emission rates of 20 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EU: BE111). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-F-2-d]*
- l. The Permittee shall operate each of the pool heaters with burners rated for maximum emission rates of 55 ppmv NO_x and 53 ppmv CO, corrected to three percent oxygen (EUs: BE112 through BE114 and BE116 through BE118). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-F-2-e]*
- m. The Permittee shall operate each of the boilers with burners rated for maximum emission rates of 20 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EUs: BE119 through BE124). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-F-2-g]*
- n. The Permittee shall operate the 4.20 MMBtu/hr boiler with burners rated for maximum emission rates of 40 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EU: BE125). *[Minor Title V Revision (00825_20120913_APP) incorporated into the Title V]*
- o. The Permittee shall operate the 5.25 MMBtu/hr boiler with burners rated for maximum emission rates of 40 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EU: BE126). *[Minor Title V Revision (00825_20120913_APP) incorporated into the Title V]*
- p. The Permittee shall operate the 1.06 MMBtu/hr boiler with burners rated for maximum emission rates of 40 ppmv NO_x and 111 ppmv CO, corrected to three percent oxygen (EU: BE127). *[Minor Title V Revision (00825_20120913_APP) incorporated into the Title V]*
- q. The Permittee shall operate the 20.0 MMBtu/hr boiler with burners rated for maximum emission rates of 20 ppmv NO_x and 50 ppmv CO, corrected to three percent oxygen (EU: BE131). *[Title V Revision (00825_20150213_APP) incorporated into the Title V]*

Diesel Generators/Fire Pumps

- r. The Permittee shall operate and maintain all diesel generators and fire pumps in accordance with the manufacturer's specifications. *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-10]*
- s. The Permittee shall combust only diesel fuel in all diesel generators. *[40 CFR 63, Subpart ZZZZ (63.6604)]*
- t. The Permittee shall operate each of the diesel emergency generators with turbochargers and aftercoolers (EUs: BE80 through BE88). *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-6]*
- u. The Permittee shall operate each of the diesel emergency generators with turbochargers (EUs: BE089 and BE101). *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-7]*

Cooling Towers

- v. The Permittee shall operate the 33,750 gpm cooling tower with drift eliminators with a manufacturer's minimum rated drift efficiency of 0.001 percent (EU: BE90). *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-11]*
- w. The Permittee shall operate each of the 3,000 gpm cooling towers with drift eliminators with a manufacturer's minimum rated drift efficiency of 0.005 percent (EUs: BE91 through BE93). *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-12]*

- x. The Permittee shall operate each of the 140 gpm cooling towers with drift eliminators with a manufacturer's minimum rated drift efficiency of 0.001 percent (EUs: BE94 through BE95). *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-13]*
- y. The Permittee shall not allow the TDS content of each the cooling tower circulation water to exceed 4,500 ppm (EUs: BE90 through BE95). *[Minor Title V Revision (00825_20120913_APP) incorporated into the Title V]*

Woodworking

- z. The Permittee shall operate the Aget and Torit baghouse dust collectors during all cutting, sanding, blasting, and surface preparation to control 99% of PM₁₀ emissions (EUs: BE109 and BE110). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-F-3-c and d]*

Gasoline Storage/Dispensing

- aa. The Permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: *[40 CFR 63.11116 and 63.11117]*
 - i. Minimize gasoline spills.
 - ii. Clean up spills as expeditiously as practicable.
 - iii. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use.
 - iv. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
 - v. Only load gasoline into storage tanks a using submerged filling where the greatest distance from the bottom of the storage tank to the point of opening of the fill tube is no more than 6 inches.
- bb. The Permittee shall install, maintain and operate a Phase I Vapor Recovery System on all gasoline storage tanks that meets the following requirements: *[40 CFR 63.11118]*
 - i. The Phase I vapor recovery system shall be rated with at least 95.0 percent control efficiency when in operation. This system shall be certified by an industry recognized certification body, i.e., California Air Resources Board (CARB) or equivalent.
 - ii. The Phase I vapor recovery system shall be a dual-point vapor balance system, as defined by 40 CFR 63.11132, in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.
 - iii. All Phase I vapor recovery equipment shall be installed, maintained and operated in accordance with the manufacturer's specifications and certification requirements.
 - iv. All vapor connections and lines on storage tanks shall be equipped with closures that seal upon disconnect.
 - v. The vapor line from the gasoline storage tanks to the gasoline cargo tank shall be vapor-tight, as defined in 40 CFR 63.11132.
 - vi. The vapor balance system shall be designed such that the pressure in the cargo tank does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.

- vii. The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.
- viii. If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the tank as the fill tube.
- ix. Liquid fill connections for all systems shall be equipped with vapor-tight caps.
- x. A pressure/vacuum (PV) vent valve on each gasoline storage tank system shall be installed, maintained and operated in accordance with the manufacturer's specifications. The pressure specifications for PV vent valves shall comply with:
 - 1. a positive pressure setting of 2.5 to 6.0 inches of water, and a negative pressure setting of 6.0 to 10.0 inches of water; and
 - 2. the total leak rate of all PV vent valves at the affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water. [40 CFR 63.11118]
- xi. The vapor balance system shall be capable of meeting the static pressure performance requirement in 40 CFR 63, Subpart CCCCCC, Table 1, Part 1 and comply with the equation: $P_f = 2e^{-500.887/V}$
- cc. Cargo tanks unloading at the source must comply with management practices as follows: [40 CFR 63.11118(d)]
 - i. All hoses in the vapor balance system are properly connected.
 - ii. The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect.
 - iii. All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight.
 - iv. All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank.
 - v. All hatches on the tank truck are closed and securely fastened.
 - vi. The filling of storage tanks shall be limited to unloading from vapor-tight gasoline cargo tanks with documentation carried onboard that it has met the specifications of EPA Method 27.
- dd. The Permittee shall implement a Phase II Vapor Recovery System on all gasoline dispensing equipment that meets the following requirements: [AQR 12.5.2.6]
 - i. The source shall install, maintain and operate a Phase II Vapor Recovery System that is certified to meet at least 95.0 percent control efficiency when in operation that is approved by the Control Officer. This system shall be certified by an industry recognized certification body, i.e., California Air Resources Board (CARB) or equivalent.
 - ii. All Phase II vapor recovery equipment shall be installed, maintained and operated in accordance with the manufacturer's specifications and certification requirements.
 - iii. All Phase II vapor recovery equipment shall be maintained to be leak free, vapor tight, and in good working order.

- iv. The gasoline product and vapor return hoses shall be coaxial.
- v. Hose breakaway(s) shall be approved by the certification body.
- vi. The maximum allowable hose length shall be in accordance to the certification requirements.
- vii. Each Balance Vapor Recovery System dispenser shall limit each nozzle's gasoline dispensing rate to the corresponding certification values. Dispenser fuel flow restrictors shall be installed as necessary and must be approved by an industry recognized certification body, i.e., California Air Resources Board (CARB) or equivalent.

Surface Coating

- ee. The Permittee shall not operate spray booths unless all exhaust air passes through appropriate filter media having a particulate capture efficiency of at least 99.0 percent. (This is usually accomplished with tacky filter material that is at least 2 inches thick.) The dry filter media must cover all openings in the spray booth. *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-16]*
- ff. The Permittee shall not use open containers for storage or disposal of VOC or HAP-containing cloth or paper (excluding masking tape) used for surface preparation and cleanup. *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-17]*
- gg. All filters or other control equipment associated with surface coating operations shall follow manufacturer's specifications for use and operation. Dry filters must be changed at sufficient intervals to prevent a decrease in their effectiveness and prevent them from clogging. *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-20]*
- hh. The Permittee shall use a manometer (or equivalent) to monitor the pressure drop across the spray booth filters. The filters should be replaced when the pressure drop exceeds 0.25 inches of water (6.35 millimeters of water), unless the manufacturer's specifications for use indicate a different pressure drop value. *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-21]*
- ii. The Permittee shall clean surface coating application equipment in an enclosed container to minimize VOC volatilization into the ambient air. *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-22]*
- jj. All containers with VOC-containing products shall remain securely closed, except during product transfer. Containers shall be inspected regularly for leakage and the contents of any leaking container must be immediately transferred to an appropriately labeled container that has been specifically designed for storage of the compound. *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-23]*
- kk. The Permittee shall employ good housekeeping practices to prevent the accumulation and/or dispersal of particulate matter from sanding, blasting, surface preparation, etc. carried out in conjunction with surface coating operations. No more than 0.25 inches of particulate matter shall accumulate on surrounding surfaces at any time. *[756 NSR ATC/OP Modification 3 (05/31/05) Condition III-B-19]*

Other

- ll. Pursuant to AQR Sections 40 and 43, no person shall cause, suffer or allow the discharge from any source whatsoever such quantities of air contaminants or other material which cause a nuisance.

5. Monitoring

Boilers/Water Heaters

- a. The Permittee shall install and utilize non-resettable hour meters such that the monthly consumption of natural gas can be established for each applicable boiler (EUs: BE74 through BE76 and BE131). *[AQR 12.5.2.6 and 40 CFR 60, Subpart Dc]*
- b. The Permittee shall install and utilize a non-resettable hour meter for the boiler (EU: BE07). *[AQR 12.5.2.6(d)]*

Burner Efficiency Tests

- c. The Permittee operating a boiler with a maximum heat input rating equal to or greater than 4.0 MMBtu/hr but less than 10.0 MMBtu/hr shall perform a burner efficiency test at least once each calendar year. Burner efficiency tests shall be conducted in accordance with the manufacturer's specifications and specifications for good combustion practices (EUs: BE125 and BE126). *[AQR 12.5.2.6(d)]*
- d. The Permittee operating a boiler with a maximum heat input rating of 10.0 MMBtu/hr or greater shall perform burner efficiency tests at least twice each year. The tests shall be performed at least five (5) months but no more than seven (7) months apart during each calendar year (EUs: BE74 through BE76, and BE131). *[AQR 12.5.2.6(d)]*
- e. The Permittee may choose not to perform a burner efficiency test on that boiler during that calendar year if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 4.0 MMBtu/hr, are zero (0) during a calendar year. *[AQR 12.5.2.6(d)]*
- f. The Permittee may perform a burner efficiency test on that boiler only once during that calendar year, if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 10.0 MMBtu/hr, are less than 50 hours during a calendar year. *[AQR 12.5.2.6(d)]*
- g. A performance test may replace a required burner efficiency test as approved by the Control Officer. *[AQR 12.5.2.6(d)]*
- h. The results from burner efficiency testing shall not be used to determine an emission unit's compliance status with its corresponding emission limit(s). *[AQR 12.5.2.6]*

Diesel Generators/Fire Pumps

- i. The Permittee shall operate each emergency generator/fire pump with a non-resettable hour meter and monitor the duration of operation for testing, maintenance and non-emergency operation, and separately for emergencies. The nature of the emergency leading to emergency operation shall be documented (EUs: BE80 through BE89 and BE101). *[AQR 12.5.2.6(d)]*

Cooling Towers

- j. The Permittee shall monitor the TDS of the recirculation water for each cooling tower, monthly, using a conductivity meter, or other device approved in advance by the Control Officer. *[AQR 12.5.2.6(d)]*

Surface Coating

- k. The Permittee shall inspect spray paint booth and all ancillary equipment for leaks, malfunctions, proper operation of gauges and pressure drops each month the booth is operated, and perform appropriate maintenance as needed. A log must be kept of all

inspections as well as any corrective actions taken to repair the equipment. [AQR 12.5.2.6(d)]

Gasoline Storage/Dispensing

- I. The Permittee shall conduct monthly inspections associated with the Phase I and Phase II vapor recovery systems to determine if components of the system are defective. [AQR 12.5.2.6(d)]

Visible Emissions

- m. The Permittee shall perform visual emissions checks each calendar quarter on a source-wide level for each diesel-fired emission unit and emitting activity to demonstrate compliance with the opacity limit. If any diesel-fired emission unit or emitting activity does not operate during the calendar quarter, then no observation of that unit or activity shall be required. If visible emissions that appear to exceed the opacity limit(s) are observed, corrective actions shall be taken to minimize the emissions, and, if practicable, the opacity of emissions shall be visually determined in accordance with 40 CFR 60 Appendix A: Reference Method 9. [AQR 12.5.2.6(d)]

6. Testing

Boiler/Water Heater Performance Tests

- a. Performance testing shall be performed following the procedures provided under 40 CFR 60 (as amended). Performance testing shall be the instrument for determining compliance with emission limitations set forth in this permit for all boilers that have a heat input rating equal to or greater than 10.0 MMBtu/hr (EUs: BE74 through BE76 and BE131). [AQR 12.5.2.6(d)]
- b. Subsequent performance testing shall be conducted at a frequency of no later than once every 5 years from the previous performance test on that boiler. Subsequent performance testing shall be conducted on emission units BE74 through BE76 and BE131. [AQR 12.5.2.6(d)]
- c. Performance testing for the applicable boilers shall comply with the testing protocol requirements identified in Table III.I.6.c: [AQR 12.5.2.6(d)]

Table III.I.6.c: Performance Testing Protocol Requirements

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

Note: 40 CFR Part 60, Subpart Dc applies to specific combustion units at this facility.

Gasoline Storage/Dispensing

- d. The Permittee shall conduct Phase I and Phase II vapor recovery tests in accordance with the California Air Resources Board (CARB)-approved vapor recovery test procedures (as revised) listed in Table III.I.6.j. [AQR 12.5.2.6(d)]
- e. The Permittee shall schedule each vapor recovery test with the Stationary Sources Compliance Supervisor at least 30 calendar days prior to the anticipated date of testing, unless otherwise specified in this permit. [AQR 12.5.2.6(d)]

- f. Any prior approved scheduled vapor recovery system test cannot be canceled and/or rescheduled except with the prior approval of the Control Officer, Compliance Division. *[AQR 12.5.2.6(d)]*
- g. The Permittee shall conduct Phase I and Phase II Vapor Recovery System Testing on affected GDO equipment according to the following requirements: *[AQR 12.5.2.6(d)]*
 - i. The Permittee shall conduct and pass an initial vapor recovery system test within 30 days of startup of new equipment, or when the integrity of the vapor recovery system has been affected by a modification or repair. Routine maintenance, including the replacement of hoses, nozzles and ECD, does not require an initial vapor recovery system test.
 - ii. The Permittee shall conduct and pass subsequent Phase I and Phase II vapor recovery system tests on or before the anniversary date of the initial performance test at the frequency specified in Table III.I.6.j.
 - iii. Each vapor recovery system test may be witnessed by an inspector from Air Quality.
- h. The Permittee shall submit the GDO Test Results Submittal Form (available on Air Quality's website) to the Control Officer after each vapor recovery system test. The submittal form shall meet the following conditions: *[AQR 12.5.2.6(d)]*
 - i. The test results shall be complete and signed by the Responsible Official for the equipment being tested. The Responsible Official must certify that the test results are true, accurate and complete.
 - ii. Test results can be submitted by regular mail, fax, or in person.
 - iii. The test report can be submitted by the source or by the Permittee's testing company or consultant, but the source is the responsible party and must ensure that the test report is delivered to Air Quality within the above timeline.
- i. If the source passes the vapor recovery system test, the Permittee shall submit the test results report to the Control Officer within 30 days from the date of the vapor recovery system test.
- j. If the source fails a vapor recovery system test, the Permittee shall comply with the following: *[AQR 12.5.2.6(d)]*
 - i. The Permittee shall notify the Control Officer within 24 hours of equipment test failure, make all necessary repairs and re-test the affected facility. After re-testing, the Permittee shall notify the Control Officer to advise of the re-test and submit test results within 15 days of completion.
 - ii. The process of re-testing shall continue until the affected facility successfully passes all aspects of the vapor recovery system test.
 - iii. The Control Officer may require the Permittee to conduct any previously required test after a failed vapor recovery system test in the presence of an Air Quality representative.

Table III.I.6.j: Required Performance Test Criterion: Balance System

Type of Vapor Recovery System	Test Procedure	Frequency
Phase I/II Vapor Balance System	Pressure Decay/Leak test: CARB Procedure TP-201.3B	Initial and every three years thereafter
	Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves: CARB Procedure TP-201.1E (as revised)	Initial and every three years thereafter
	Dynamic Back Pressure test: CARB Procedure TP-201.4 (as revised)	Initial and every three years thereafter
	Flow rate Test: CC_V RTP_1	Initial and every three years thereafter

7. Record Keeping

- a. The Permittee shall maintain records on site that include, at minimum, the following information: *[AQR 12.5.2.6(d)]*
 - i. monthly amount of natural gas consumed (in MMBtu, scf, or therms) for each boiler (EUs: BE74 through BE76 and BE131); *[40 CFR 60.48c(g)(2)]*
 - ii. monthly amount of diesel fuel purchased (in gallons) for emergency generators (EUs: BE80 through BE89 and BE101);
 - iii. date and duration of operation of emergency generators for testing, maintenance, and non-emergency use (EUs: BE80 through BE89 and BE101);
 - iv. date and duration of operation of emergency generators for emergency use, including documentation justifying use during the emergency (EUs: BE80 through BE89 and BE101);
 - v. monthly monitoring results of TDS content of cooling tower circulation water;
 - vi. MSDS or records demonstrating the VOC content for each compound used for surface coating activities;
 - vii. a log book of all inspections, maintenance, and repairs as specified in this Operating Permit;
 - viii. records of burner efficiency testing as specified in this Operating Permit;
 - ix. results of performance testing as specified in this Operating Permit; and
 - x. GDO records shall contain, at minimum, the following information (EU: BE108): *[AQR 12.5.2.6(d)]*
 - (i) a record of any maintenance on any part of the Phase I and Phase II equipment, including a general description of the maintenance;
 - (ii) the date and time the equipment was taken out-of-service;
 - (iii) the date of repair or replacement;
 - (iv) a general description of the part location (e.g., pump, tank, nozzle number, etc.);
 - (v) a description of the problem; and

- (vi) the results of the inspections.
- b. The Permittee shall maintain on site and report the following information semi-annually: *[AQR 12.5.2.6(d)]*
 - i. monthly and any consecutive 12-month total hours of operation of the boiler (EU: BE07);
 - ii. monthly total of operating hours of emergency generator(s) for testing, maintenance, and non-emergency use (EUs: BE80 through BE89 and BE101);
 - iii. monthly total of operating hours of emergency generator(s) for emergency use, including documentation justifying use during the emergency (EUs: BE80 through BE89 and BE101);
 - iv. monthly and any consecutive 12-month total consumption (in gallons) of each VOC-containing compound related to surface coating activities (paints, basecoats, primers, reducers, thinners, solvents, etc.);
 - v. monthly and any consecutive 12-month total consumption (in gallons) of powder coating materials (EUs: BE99);
 - vi. monthly and any consecutive 12-month total of gasoline throughput *[40 CFR 63.11116(b)]*; and
 - vii. monthly and any consecutive 12-month total hours of woodworking operations (EUs: BE109 and BE110).
- c. For all inspections, visible emission checks, and testing required under monitoring, logs, reports, and records shall include at least the date and time, the name of the person performing the action, the results or findings, and the type of corrective action taken (if required). *[AQR 12.5.2.6(d)]*
- d. The Control Officer or the Air Quality-approved Certified Phase II Vapor Recovery Tester shall use an approved Audit Form to record the type of performance tests conducted, as well as, the results of the tests. An approved form may be obtained from Air Quality or an Air Quality-approved Certified Phase II Vapor Recovery Tester. The source shall retain the completed Audit Form for each test performed. *[AQR 12.5.2.6(d)]*

J. CITYCENTER

1. Emission Units

- a. The stationary source covered by the Part 70 OP consists of the emission units and associated appurtenances summarized in Table III.J.1.a. *[825 NSR ATC Modification 8 (03/30/06) and 825 NSR ATC Modification 13 (12/31/09), and Minor Title V Revision (00825_20110603_SUP) incorporated into the Title V]*

Table III.J.1.a: Summary of Emission Units – CityCenter

EU	Rating	Type	Manufacturer	Model No.	Serial No.
CC005	4.2 MMBtu/hr	Boiler	Hurst	400	S500-150-151
CC006	4.2 MMBtu/hr	Boiler	Hurst	400	S500-150-152
CC007	4.6 MW (Nominal Electrical Rating)	Combustion Gas Turbine (CGT)	Solar	Mercury 50- 6000R	PG06N11

EU	Rating	Type	Manufacturer	Model No.	Serial No.
CC008	4.6 MW (Nominal Electrical Rating)	Combustion Gas Turbine (CGT)	Solar	Mercury 50- 6000R	PG06N12
CC009	3,622 hp	Diesel Emergency Generator	Caterpillar	3516C	SBK00196
CC010	3,622 hp	Diesel Emergency Generator	Caterpillar	3516C	SBK00197
CC011	3,622 hp	Diesel Emergency Generator	Caterpillar	3516C	SBK00198
CC012	2,937 hp	Diesel Emergency Generator	Caterpillar	3516C	SBJ00378
CC013	2,937 hp	Diesel Emergency Generator	Caterpillar	3516C	SBJ00379
CC014	2,937 hp	Diesel Emergency Generator	Caterpillar	3516C	SBJ00380
CC015	2,937 hp	Diesel Emergency Generator	Caterpillar	3516C	SBJ00382
CC026	44 MMBtu/hr	Boiler	English	ACT08GSLE	26001-1
CC027	44 MMBtu/hr	Boiler	English	ACT08GSLE	26001-2
CC028	44 MMBtu/hr	Boiler	English	ACT08GSLE	26001-3
CC029	10,890 gpm	Cooling Tower Cell 1	Composite Cooling System	FM-4242- 250-P6	1163
CC030	10,890 gpm	Cooling Tower Cell 2	Composite Cooling System	FM-4242- 250-P6	1163
CC031	10,890 gpm	Cooling Tower Cell 3	Composite Cooling System	FM-4242- 250-P6	1163
CC032	10,890 gpm	Cooling Tower Cell 4	Composite Cooling System	FM-4242- 250-P6	1163
CC033	10,890 gpm	Cooling Tower Cell 5	Composite Cooling System	FM-4242- 250-P6	1163
CC034	10,890 gpm	Cooling Tower Cell 6	Composite Cooling System	FM-4242- 250-P6	1163
CC035	175 hp	Diesel Fire Pump	Clarke	JU6H-UF- 34	PE6068T717220
CC036	175 hp	Diesel Fire Pump	Clarke	JU6H-UF- 34	PE6068T717222
CC037	105 hp	Diesel Fire Pump	Clarke	JU6H-UF- 40	PE4045T740064
CC038	105 hp	Diesel Fire Pump	Clarke	JU6H-UF- 40	PE4045T740067
CC039	55 hp	Diesel Fire Pump	Clarke	JU4H-UF- 10	BF4045D721508
CC040	55 hp	Diesel Fire Pump	Clarke	JU4H-UF- 10	BF4045D724411

2. Emission Limitations

- a. The Permittee shall limit the actual emissions from each emission unit to the PTE listed in Table III.J.2.a. The emission limits represent normal operation (excluding startup and shutdown) only. [825 NSR ATC Modification 8 (03/30/06), 825 NSR ATC Modification 13 (12/31/09), and Minor Title V Revision (00825_20110603_SUP) incorporated into the Title V]

Table III.J.2.a: PTE (tons per year) – CityCenter

EU	Rating	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
CC005	4.2 MMBtu/hr	0.09	0.09	0.18	0.27	0.01	0.05	0.02
CC006	4.2 MMBtu/hr	0.09	0.09	0.18	0.27	0.01	0.05	0.02
CC007	4.6 MW	3.75	3.75	3.28	1.00	0.13	0.46	0.18
CC008	4.6 MW	3.75	3.75	3.28	1.00	0.13	0.46	0.18
CC009	3,622 hp	0.10	0.10	9.35	1.51	0.01	0.23	0.01
CC010	3,622 hp	0.10	0.10	9.35	1.51	0.01	0.23	0.01
CC011	3,622 hp	0.10	0.10	9.35	1.51	0.01	0.23	0.01
CC012	2,937 hp	0.14	0.14	10.47	1.01	0.01	0.28	0.02
CC013	2,937 hp	0.14	0.14	10.47	1.01	0.01	0.28	0.02
CC014	2,937 hp	0.14	0.14	10.47	1.01	0.01	0.28	0.02
CC015	2,937 hp	0.14	0.14	10.47	1.01	0.01	0.28	0.02
CC026	44 MMBtu/hr	0.95	0.95	2.34	1.89	0.08	0.69	0.24
CC027	44 MMBtu/hr	0.95	0.95	2.34	1.89	0.08	0.69	0.24
CC028	44 MMBtu/hr	0.95	0.95	2.34	1.89	0.08	0.69	0.24
CC029	10,890 gpm, 0.001% Drift	0.51	0.51	0.00	0.00	0.00	0.00	0.00
CC030	10,890 gpm, 0.001% Drift	0.51	0.51	0.00	0.00	0.00	0.00	0.00
CC031	10,890 gpm, 0.001% Drift	0.51	0.51	0.00	0.00	0.00	0.00	0.00
CC032	10,890 gpm, 0.001% Drift	0.51	0.51	0.00	0.00	0.00	0.00	0.00
CC033	10,890 gpm, 0.001% Drift	0.51	0.51	0.00	0.00	0.00	0.00	0.00
CC034	10,890 gpm, 0.001% Drift	0.51	0.51	0.00	0.00	0.00	0.00	0.00
CC035	175 hp	0.03	0.03	0.40	0.11	0.01	0.03	0.01
CC036	175 hp	0.03	0.03	0.40	0.11	0.01	0.03	0.01
CC037	105 hp	0.01	0.01	0.33	0.02	0.01	0.02	0.01
CC038	105 hp	0.01	0.01	0.33	0.02	0.01	0.02	0.01
CC039	55 hp	0.03	0.03	0.43	0.09	0.01	0.04	0.01
CC040	55 hp	0.03	0.03	0.43	0.09	0.01	0.04	0.01

- b. The Permittee shall limit the actual and allowable emissions from each Turbine to the PTE listed in Table III.J.2.b during periods of startup and shutdown (EUs: CC007 and CC008). [825 NSR ATC Modification 8 (03/30/06) Table II-B-4 and Minor Title V Revision (00825_20110603_SUP) incorporated into the Title V]

Table: III.J.2.b: Potential Emissions from CityCenter Turbine Start-up/Shut- down Event¹

Event	NO _x (pounds per event)	CO (pounds per event)	UHC ² (pounds per event)
Startup	1.30	34.5	2.90
Shutdown	0.60	4.20	0.40

¹Based on an approximate duration of 20 minutes for start-up event and 9 minutes for shut-down event.

²Unburned hydrocarbons. VOC emission factors are 10-20 percent of UHC value.

- c. The Permittee shall limit the actual emissions from each English Boiler to the PTE listed in Table III.J.2.c. The emission limits represent normal operation (excluding startup and shutdown) only. [825 NSR ATC Modification 13 (12/31/09) Condition IV-G-2-a and Minor Title V Revision (00825_20110603_SUP) incorporated into the Title V]

Table III.J.2.c: PTE (pounds per hour) – CityCenter

EU	Rating	Conditions	NO _x	CO
CC026	44 MMBtu/hr	5,800 hrs/yr	0.81	0.65
CC027	44 MMBtu/hr	5,800 hrs/yr	0.81	0.65
CC028	44 MMBtu/hr	5,800 hrs/yr	0.81	0.65

- d. The Permittee shall limit the actual concentration from each emission unit to the concentrations listed in Table III.J.2.d. The concentrations represent normal operation (excluding startup and shutdown) limits only. [825 NSR ATC Modification 8 (03/30/06) and 825 NSR ATC Modification 13 (12/31/09) Condition IV-G-2-c]

Table III.J.2.d: Emission Concentrations (ppmv), Normal Operation – CityCenter

EU	NO _x ¹	CO ¹	VOC ²
CC007	5	2.5	2.0
CC008	5	2.5	2.0
CC026	15	20	N/A
CC027	15	20	N/A
CC028	15	20	N/A

¹Based on a 36 minute averaging period.

²Annual emission limitation as CH₄.

- e. The Permittee shall comply with the emission standards set forth in Table 1 of 40 CFR 60 Subpart IIII for the same model year and maximum engine power. The emission standards are provided in Table III.J.2.e (EUs: CC009 through CC011). [40 CFR 60, Subpart IIII (60.4205(b) which refers to 60.4202(b)(1))]

Table III.J.2.e: Emission Standards for Stationary Diesel Engines > 3,000 hp in g/kW-hr (g/hp-hr)

Rated Power (kW)	NMHC + NO _x	HC	NO _x	CO	PM
kW>560 (hp>750)	--	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

- f. The Permittee shall comply with the emission standards set forth in 40 CFR 89.112 and 40 CFR 89.113 for the same model year and maximum engine power. The emission standards are provided in Table III.J.2.f (EUs: CC012 through CC015). [40 CFR 60, Subpart IIII (60.4205(b) which refers to 60.4202(a)(2))]

Table III.J.2.f: Emission Standards for Stationary Diesel Engines < 3,000 hp in g/kW-hr

Rated Power (kW)	Tier	NOx	HC	NMHC + NOx	CO	PM
kW> 560 (hp > 750)	Tier 1	9.2	1.3	--	11.4	0.54
	Tier 2	--	--	6.4	3.5	0.20

- g. The Permittee shall comply with the emission standards set forth in Table 4 of 40 CFR 60 Subpart IIII for the same model year and maximum engine power. The emission standards are provided in Table III.J.2.g (EUs: CC035 through CC040). [825 NSR ATC Modification 13 (11/30/09) Condition IV-E-d]

Table III.J.2.g: Emission Standards for Stationary Fire Pump Engines in g/kW-hr (g/hp-hr)

[As stated in §60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NOx	CO	PM
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	4.7 (3.5)	--	0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+ ²	4.0 (3.0)	--	0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)	--	0.20 (0.15)

¹For model years 2011-2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

²For model years 2010-2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

³In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

- h. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. [AQR 26.1.1]

3. Operational Limitations

- a. The Permittee shall limit operation of each of the Hurst boilers (EUs: CC005 and CC006) to 5,800 hours per any consecutive 12-months. [825 NSR ATC Modification 8 (03/30/06) Condition III-A-2]
- b. The heat input rating of each of the two Solar Mercury turbines (EUs: CC007 and CC008) shall exceed neither 44.5 MMBtu/hour nor 357,408 MMBtu/year, based on the Lower Heat Value (LHV) of the fuel. [825 NSR ATC Modification 8 (03/30/06) Condition III-A-4]
- c. The Permittee shall limit the operation of the emergency generators and fire pumps (EUs: CC009 through CC015 and CC035 through CC040) for testing and maintenance purposes to 100 hours per calendar year. The Permittee may operate the emergency generators up to 50 hours per calendar year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. The 50 hours per calendar year for

nonemergency situations cannot be used for peak shavings or to generate income for the facility. [40 CFR 60, Subpart IIII (60.4211) and 40 CFR 63, Subpart ZZZZ (63.6640)]

- d. The Permittee shall limit the operation of each English boilers (EUs: CC026 through CC028) to 5,800 hours per any consecutive 12-months. [825 NSR ATC Modification 13 (12/31/09) Condition IV-G-3-b]

4. Control Requirements

Boilers/Water Heaters

- a. The Permittee shall combust only natural gas in each boiler (EUs: CC005, CC006, and CC026 through CC028). [825 NSR ATC Modification 8 (03/30/06) Condition III-B-1 and 825 NSR ATC Modification 13 (12/31/09) Condition V-1]
- b. The Permittee shall operate and maintain each of the boilers in accordance with the manufacturers' specifications (EUs: CC005, CC006, and CC026 through CC028). [825 NSR ATC Modification 8 (03/30/06) Condition III-B-2 and 825 NSR ATC Modification 13 (12/31/09) Condition V-2]
- c. The Permittee shall equip each boiler with low-NO_x burners and flue gas recirculation as control devices (EUs: CC005, CC006, and CC026 through CC028). [825 NSR ATC Modification 8 (03/30/06) Condition III-B-5 and 825 NSR Modification 13 (12/31/09) Condition IV-G-2-c]
- d. The Permittee shall operate each Hurst boiler with burners rated for maximum emission rates of 12 ppmv NO_x and 30 ppmv CO, corrected to three percent oxygen (EUs: CC005 and CC006). [825 NSR ATC Modification 8 (03/30/06) Condition III-B-6]
- e. The Permittee shall operate each English boiler with burners rated for maximum emission rates of 15 ppmv NO_x and 20 ppmv CO, corrected to three percent oxygen (EUs: CC026 through CC028). [825 NSR ATC Modification 13 (12/31/09) Condition IV-G-2-c and Minor Title V Revision (00825_20110603_SUP) incorporated into the Title V]

Turbines

- f. The Permittee shall combust only pipeline quality natural gas in the two (2) Solar Mercury turbines (EUs: CC007 and CC008). [825 NSR ATC Modification 8 (03/30/06) Condition III-B-7]
- g. The Permittee shall be operate and maintain the two (2) Solar Mercury turbines in accordance with the manufacturer's recommendations (EUs: CC007 and CC008). [825 NSR ATC Modification 8 (03/30/06) Condition III-B-8]
- h. The Permittee shall equip the two (2) Solar Mercury turbines, each with a nominal rating of 4.6 MW, with lean pre-mix technology (EUs: CC007 and CC008). [825 NSR Modification 8 (03/30/06) Condition III-B-10]
- i. The Permittee shall not use natural gas with a sulfur content that exceeds 20 grains per 100 dscfm (0.05 percent by weight). [40 CFR 60.4365]

Diesel Generators/Fire Pumps

- j. The Permittee shall operate each emergency diesel generator with turbochargers and aftercoolers (EUs: CC009 through CC015). [825 NSR Modification 8 (03/30/06) Condition III-B-12 and 825 NSR ATC Modification 13 (12/31/09) Condition IV-G-4-a]

- k. The Permittee shall operate the fire pumps with turbochargers (EUs: CC035 through CC040). *[Title V Renewal (00825_20150629_APP) incorporated into the Title V]*
- l. The Permittee shall operate and maintain all diesel generators and fire pumps in accordance with the manufacturer's specifications (EUs: CC009 through CC015 and CC035 through CC040). *[825 NSR Modification 8 (03/30/06) Condition III-B-13 and 825 NSR ATC Modification 13 (12/31/09) Condition V-3]*
- m. The Permittee shall combust only diesel fuel in the diesel generators and fire pumps (EUs: CC009 through CC015 and CC035 through CC040). *[40 CFR 63, Subpart ZZZZ (63.6604)]*

Cooling Towers

- n. The Permittee shall operate the cooling towers with drift eliminators that have a manufacturer's maximum drift rate of 0.001 percent (EUs: CC029 through CC034). *[825 NSR ATC Modification 13 (12/31/09) Condition IV-G-4-b]*
- o. The Permittee shall not allow the TDS content of the circulation water in each cooling tower to exceed 4,500 ppm. *[Minor Title V Revision (00825_20110603_SUP) incorporated into the Title V]*
- p. The Permittee shall operate and maintain each of the cooling towers in accordance with the manufacturer's specifications. *[825 NSR Modification 8 (03/30/06) Condition III-B-15]*

5. Monitoring

Boilers/Water Heaters

- a. The Permittee shall install and utilize non-resettable hour meters such that the monthly consumption of natural gas can be established for each applicable boiler (EUs: CC005 and CC006). *[AQR 12.5.2.6(d)]*
- b. The Permittee shall install and utilize non-resettable fuel meters for each of boilers (EUs: CC026 through CC028). *[AQR 12.5.2.6(d)]*
- c. The Permittee shall monitor the monthly fuel consumption by each boiler (EUs: CC026 through CC028). *[40 CFR 60, Subpart Dc and AQR 12.5.2.6(d)]*

Burner Efficiency Tests

- d. The Permittee operating a boiler with a maximum heat input rating equal to or greater than 4.0 MMBtu/hr but less than 10.0 MMBtu/hr shall perform a burner efficiency test at least once each calendar year. Burner efficiency tests shall be conducted in accordance with the manufacturer's specifications and specifications for good combustion practices (EUs: CC005 and CC006). *[AQR 12.5.2.6]*
- e. The Permittee operating a boiler with a maximum heat input rating of 10.0 MMBtu/hr or greater shall perform burner efficiency tests at least twice each year. The tests shall be performed at least five (5) months but no more than seven (7) months apart during each calendar year (EUs: CC026 through CC028). *[AQR 12.5.2.6]*
- f. The Permittee may choose not to perform a burner efficiency test on a boiler during that calendar year, if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 4.0 MMBtu/hr, are zero (0) during a calendar year. *[AQR 12.5.2.6]*

- g. The Permittee may perform a burner efficiency test on that boiler only once during that calendar year if the documented actual hours of operation of the boiler, with a maximum heat input rating equal to or greater than 10.0 MMBtu/hr, are less than 50 hours during a calendar year. [AQR 12.5.2.6]
- h. A performance test may replace a required burner efficiency test as approved by the Control Officer. [AQR 12.5.2.6(d)]
- i. The results from burner efficiency testing shall not be used to determine an emission unit's compliance status with its corresponding emission limit(s). [AQR 12.5.2.6]

Diesel Generators/Fire Pumps

- j. The Permittee shall operate each emergency generator/fire pump with a non-resettable hour meter and monitor the duration of operation for testing, maintenance and non-emergency operation, and separately for emergencies. The nature of the emergency leading to emergency operation shall be documented (EUs: CC009 through CC015 and CC035 through CC040). [AQR 12.5.2.6(d)]

Turbines

- k. The 4.6 MW combustion gas turbines (EUs: CC007 and CC008) are subject to 40 CFR 60, Subpart KKKK. Compliance with the turbine emission limitations specified in 40 CFR 60, Subpart KKKK and this permit shall be demonstrated by an initial performance test, a performance test at least once every five years thereafter, and record keeping. The number of start-up/shut-down events shall be tracked, and the emissions from such shall be used to verify compliance with the annual emission limitations for the combustion turbines. [AQR 12.5.2.6(d) and 40 CFR 60.4400(a)]
- l. Compliance with the sulfur standards of the natural gas fuel according to 40 CFR 60, Subpart KKKK shall be demonstrated using methods described in the subpart. [40 CFR 60.4330]
- m. Pursuant to 40 CFR 60, Subpart KKKK, for any lean premix stationary combustion turbine the owner or operator shall continuously monitor the appropriate parameters to determine whether the unit is operating in the lean premixed dry low-NO_x (DLN) or ultra-lean premixed (ULP) combustion mode. The Permittee shall identify the parameters and develop a monitoring procedure before starting operation. [40 CFR 60.4340]
- n. The Permittee shall monitor and record the Primary Zone Temperature in the turbines at the time of shut-down (EUs: CC007 and CC008). [AQR 12.5.2.6(d)]
- o. The Permittee shall monitor the turbine exhaust gas temperature (EUs: CC007 and CC008). [AQR 12.5.2.6(d)]

Cooling Towers

- p. The Permittee shall monitor the TDS of the cooling tower recirculation water monthly using a hand-held conductivity meter, or other device approved in advance by the Control Officer (EUs: CC029 through CC034). [AQR 12.5.2.6(d)]

Visible Emissions

- q. The Permittee shall perform visual emissions checks each calendar quarter on a source-wide level for each diesel-fired emission unit and emitting activity to demonstrate compliance with the opacity limit. If any diesel-fired emission unit or emitting activity does not operate during the calendar quarter, then no observation of that unit or activity shall be required. If visible emissions that appear to exceed the opacity limit(s) are observed, corrective actions

shall be taken to minimize the emissions, and, if practicable, the opacity of emissions shall be visually determined in accordance with 40 CFR 60 Appendix A: Reference Method 9. [AQR 12.5.2.6]

6. Testing

- a. The Permittee shall conduct initial performance tests within 60 days after achieving the maximum production rate at which the facility will be operated but no later than 180 days after initial startup on each of the three 44 MMBtu/hr English boilers (EUs: CC026 through CC028) as described in Table III.J.6.g, or by alternate test methods preapproved by the Control Officer. After initial performance testing, the Permittee shall conduct additional performance testing every five years. [AQR 12.5.2.6(d)]
- b. The Permittee shall conduct initial performance tests within 60 days after achieving the maximum production rate at which the facility will be operated but no later than 180 days after initial startup on each of the two 4.6 MW Solar turbines (EUs: CC007 and CC008) as described in Table III.J.6.a or by alternate test methods preapproved by the Control Officer. After initial performance testing, the Permittee shall conduct additional performance testing every five years. [AQR 12.5.2.6(d)]
- c. The Permittee shall submit for approval a performance testing protocol which contains test, reporting, and notification schedules, test protocols, and anticipated test dates to the Control Officer at least 45 days prior to the anticipated test date, unless otherwise specified in an NSPS, but not more than 90 days prior to the anticipated test date. [AQR 12.5.2.6(d)]
- d. A report describing the results of the performance test shall be submitted to the Control Officer within 60 days from the end of the performance test. [AQR 12.5.2.6(d)]
- e. Pursuant to Section 10, the Permittee of any stationary source or emissions unit that fails to demonstrate compliance with the emissions standards or limitations during any subsequent performance test shall submit a compliance plan to the Control Officer within 90 days from the end of the performance test. [AQR 12.5.2.6(d)]
- f. The Control Officer may consider approving the Permittee's requests for alternative performance test methods if proposed in writing in performance test protocols. [AQR 12.5.2.6(d)]
- g. The Permittee shall perform the performance tests listed in Table III.J.6.g on Emission Units CC007, CC008, and CC026 through CC028. [AQR 12.5.2.6(d)]

Table III.J.6.g: Performance Testing Requirements

Test Point	Pollutant	Method
4.6 MW Turbine Exhaust Outlet Stack	NO _x	EPA Method 7E
4.6 MW Turbine Exhaust Outlet Stack	CO	EPA Method 10
Turbine Exhaust Outlet Stack Gas Parameters	---	EPA Methods 1, 2, 3, 4
Boiler Outlet Stack	NO _x	EPA Method 7E
Boiler Exhaust Outlet Stack	CO	EPA Method 10
Boiler Stack Gas Parameters	---	EPA Methods 1, 2, 3A, 4

7. Record Keeping

- a. The Permittee shall maintain records on site that include, at minimum, the following information: [AQR 12.5.2.6(d)]

- i. monthly amount of natural gas consumed (in MMBtu, scf or therms) for each boiler (EUs: CC026 through CC028); [40 CFR 60.48c(g)(2)]
 - ii. monthly amount of diesel fuel purchased (in gallons) for emergency generators and fire pumps (EUs: CC009 through CC015 and CC035 through CC040);
 - iii. date and duration of operation of emergency generators and fire pumps for testing, maintenance, and non-emergency use (EUs: CC009 through CC015 and CC035 through CC040);
 - iv. date and duration of operation of emergency generators and fire pumps for emergency use, including documentation justifying use during the emergency (EUs: CC009 through CC015 and CC035 through CC040);
 - v. Startup/Shutdown event log with the Primary Zone Temperature for each event for the turbines (EUs: CC007 and CC008);
 - vi. dates and number of each start-up and shut-down cycle of each combustion gas turbine (EUs: CC007 and CC008);
 - vii. monthly monitoring results of TDS content of cooling tower circulation water;
 - viii. burner efficiency test results as specified in this Operating Permit; and
 - ix. performance test results as specified in this Operating Permit.
- b. The Permittee shall maintain on site and report the following information semi-annually: [AQR 12.5.2.6]
- i. monthly and any consecutive 12-month total hours of operation for each boiler (EUs: CC005, CC006, and CC026 through CC028);
 - ii. monthly total of operating hours of emergency generator(s) for testing, maintenance, and non-emergency use (EUs: CC009 through CC015 and CC035 through CC040);
 - iii. monthly total of operating hours of emergency generator(s) for emergency use, including documentation justifying use during the emergency (EUs: CC009 through CC015 and CC035 through CC040); and
 - iv. monthly and any consecutive 12-month total MMBtu consumed by the combustion gas turbines (EUs: CC007 and CC008).
- c. For all inspections, visible emission checks, and testing required under monitoring, logs, reports, and records shall include at least the date and time, the name of the person performing the action, the results or findings, and the type of corrective action taken (if required). [AQR 12.5.2.6(d)]

IV. MITIGATION

1. The source must comply with the offset requirements contained in AQR Section 12.7 and Appendix S of 40 CFR Part 51. If there is a difference in stringency between the two rules, then the source shall comply with the more stringent offset requirements.

V. ADDITIONAL COMPLIANCE CONDITIONS

1. For all NSPS subject sources, at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner

consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]

VI. PERMIT SHIELD

Compliance with the terms contained in this permit shall be deemed compliance with the following applicable requirements in effect on the date of permit issuance: [AQR 12.5.2.9]

Table VI-1.: Applicable Requirements Related to Permit Shield

Citation	Title
40 CFR Part 60, Subpart Dc	Standards of Performance for New Stationary Sources (NSPS) – Small Industrial-Commercial-Institutional Steam Generating Units
40 CFR Part 60, Subpart IIII	Standards of Performance for New Stationary Sources (NSPS) – Stationary Compression Ignition (CI) Internal Combustion Engines (ICE)
40 CFR Part 60, Subpart KKKK	Standards of Performance for New Stationary Sources (NSPS) – Stationary Combustion Turbines
40 CFR 63, Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines
40 CFR 63, Subpart CCCCCC	National Emission Standard for Hazardous Air Pollutants (NESHAP) for Source Category: Gasoline Dispensing Facilities

VI. OTHER REQUIREMENTS

1. The source is currently not subject to the Title IV (Acid Rain Program) Requirements.

END OF PART 70 OPERATING PERMIT 825