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

4701 W. Russell Rd Suite 200
Las Vegas, NV 89118-2231
Phone (702) 455-5942
Fax (702) 383-9994

PART 70
TECHNICAL SUPPORT DOCUMENT
(STATEMENT of BASIS)

APPLICATION FOR:
Part 70 Operating Permit Significant Revision

SUBMITTED BY:
Broadbent & Associates, Inc.

FOR:
Caesars Entertainment, Inc.
Caesars Consolidated Properties

Source ID: 257

LOCATION:
1 Caesars Palace Drive
Las Vegas, Nevada 89109

SIC code 7011, "Hotels and Motels"
NAICS code 721120, "Casino Hotels"

TSD Date: April 24, 2023

EXECUTIVE SUMMARY

Caesars Consolidated Properties (Caesars) is a major stationary source for NO_x (nonattainment), a major Part 70 source for CO, and a minor source for all other regulated air pollutants. The source is also identified as a major source of greenhouse gases (GHGs). It is located at 1 Caesars Palace Drive, Las Vegas, Nevada, in the Las Vegas Valley (Hydrographic Area 212). Hydrographic Area 212 is designated as attainment for all regulated air pollutants except ozone and was designated a moderate nonattainment area for the 2015 ozone standard on January 5, 2023. The designation has not imposed any new requirements at this time. HA 212 is also subject to a maintenance plan for the CO and PM_{10} NAAQS.

Caesars owns and operates several adjacent and contiguous hotels and casinos grouped under SIC code 7011, "Hotels and Motels" (NAICS code 721120, "Casino Hotels"). The source is operating eleven facilities: Harrah's Las Vegas, Flamingo Las Vegas, Horseshoe Las Vegas, The Cromwell Las Vegas, Caesars Palace, Paris Las Vegas, The LINQ Hotel & Casino, Planet Hollywood, LINQ Complex – High Roller, Battista's, and the Forum Meeting Center. Caesars is not a categorical Stationary Source, as defined by AQR 12.2.2(j).

The Clark County Department of Environment and Sustainability, Division of Air Quality (DAQ) has permitting responsibilities for all emission units at the source, which include boilers, diesel generators and fire pumps, cooling towers, spray booths, gasoline dispensing operations, and woodshops. The permitting history of this source reflects changes in air quality permitting practices, both at the local and federal levels, in response to changing environmental regulations.

The potential emissions for the source are shown in the table below.

Source PTE (tons per year)

	PM_{10}	$PM_{2.5}$	NO_x	CO	SO_2	VOC	HAPs	GHG[2]
PTE	**70.57**	**70.57**	**453.11**	**188.16**	**2.26**	**27.47**	**5.90**	**322,775.70**
Major Part 70 Source Thresholds (Title V)	100	100	100	100	100	100	10/25[1]	-
Major Stationary Source Thresholds (PSD)	250	250	-	250	250	-	10/25[1]	-
Major Stationary Source Threshold (Nonattainment)	-	-	100	-	-	100	-	-

[1]10 tpy for single HAP and 25 tpy for combined HAPs.
[2]GHG expressed as CO_{2e}.

DAQ has been delegated the authority to implement the requirements of the Part 70 operating permit program.

Based on the information submitted by the applicant and a technical review performed by DAQ staff, DAQ proposes a revision of the Part 70 OP for Caesars.

TABLE OF CONTENTS

LIST OF TABLES

ACRONYMS AND ABBREVIATIONS

(These terms may be seen in the Technical Support Document)

Acronym	Term
AQR	Clark County Air Quality Regulation
ATC	Authority to Construct
CAAA	Clean Air Act Amendments
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CO	carbon monoxide
DAQ	Division of Air Quality
DES	Department of Environment and Sustainability
EPA	U.S. Environmental Protection Agency
EU	emission unit
GHG	greenhouse gases
gpm	gallons per minute
HAP	hazardous air pollutant
hp	horsepower
kW	kilowatt
MMBtu	Millions of British thermal units
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NO_x	nitrogen oxides
NRS	Nevada Revised Statutes
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PM_{10}	particulate matter less than 10 microns in diameter
ppm	parts per million
ppmvd	parts per million, volumetric dry
PSD	Prevention of Significant Deterioration
PTE	potential to emit
RICE	reciprocating internal combustion engine
SCC	Source Classification Codes
SIC	Standard Industrial Classification
SO_2	sulfur dioxide
TDS	total dissolved solids
VOC	volatile organic compound

I. SOURCE INFORMATION

Responsible Official: Eric Dominguez

Phone Number: (702) 343-9501

Permittee	Caesars Entertainment, Inc.
Address (Mailing/Billing):	One Caesars Palace Drive, Las Vegas, NV 89109
Source Name:	Caesars Entertainment, Inc., Caesars Consolidated Properties
Source Address:	Harrah's Las Vegas, 3475 S. Las Vegas Blvd. Flamingo Las Vegas, 3555 S. Las Vegas Blvd. Horseshoe Las Vegas, 3645 S. Las Vegas Blvd. The Cromwell Las Vegas, 3595 S. Las Vegas Blvd. Caesars Palace, 3570 S. Las Vegas Blvd. Paris Las Vegas, 3655 S. Las Vegas Blvd. The LINQ Hotel & Casino, 3535 S. Las Vegas Blvd. Planet Hollywood, 3667 S. Las Vegas Blvd. LINQ Complex – High Roller, 3545 S. Las Vegas Blvd. Battista's, 4041 Audrie St. Forum Meeting Center, 3911 Koval Lane

Contact:	Jeri Ruskowitz, Director Environmental Compliance
Telephone Number:	(702) 755-3579
Email:	jruskowitz1@caesars.com

A. Source Description

Caesars Entertainment, Inc., operates the source, Caesars Consolidated Properties. The properties are hotel and casino facilities with a convention center. For all of the potential emission sources, the key processes are heating and cooling both water and air with boilers and cooling towers, and using emergency generators to produce electricity when necessary. There are ancillary activities, such as carpentry and spray painting, for which dust collectors and paint spray booths are used. All boilers and heaters utilize natural gas and emergency generators use ultra-low sulfur diesel fuel. Cyclones, dust collectors, and paint spray booths are operated on electricity.

Caesars is a major stationary source for NO_x, a major Part 70 source for CO and a minor source for all the other regulated air pollutants.

B. Permitting Action

This significant revision of the OP addresses significant revision applications submitted on May 9, 2022, and October 18, 2022. Additionally, this permitting action addresses some equipment rating discrepancies as explained in this section.

This permitting action incorporates the ATC issued on February 23, 2023, based on the application submitted on October 18, 2022, to add a new emergency diesel generator (EU: PA37), change the name of Paris Resort Casino to Paris Las Vegas, and update the ratings of five emergency diesel generators (EUs: CR07, CP28, CP29, LI06, and LI07). Incorporation of the ATC in the OP is not

an administrative revision as the ATC was not subject to AQR 12.2.16.6 – Enhanced public participation procedures. Since adding a diesel engine subject to an NSPS is a Title I modification, this permitting action cannot be a minor revision per AQR 12.5.2.14(a)(1)(E). Therefore, this permitting action is a significant revision to the Part 70 OP.

The permittee, on May 9, 2022, submitted an application for a significant revision to the Part 70 OP. The requested changes qualify for a minor revision. The permittee requested to make the following changes:

1. Update the flow rate of three cooling towers (EUs: HA26 through HA28) from 4,200 gallons per minute (gpm) to 5,200 gpm each.
2. Change all references from Bally's Las Vegas to Horseshoe Las Vegas.
3. Update the flow rate of a cooling tower (EU: CR09) from 5,400 gpm to 5,850 gpm.
4. Update the flow rate of three cooling towers (EUs: CP19a through CP19c) from 9,000 gpm to 10,650 gpm each.
5. Remove a boiler (EU: CP07).
6. Classify three boilers (EUs: CP41, CP42, and CP44) as insignificant.
7. Update the engine rating of an emergency generator (EU: PH13) from 2,561 hp to 2,560 hp.
8. Remove a boiler (EU: LI11) at the LINQ Complex – High Roller.
9. Add an insignificant water heater rated at 0.150 MMBtu/hr at the LINQ Complex – High Roller.
10. Increase the NO_x for the boilers at the Forum Meeting Center (EUs: FMC01 through FMC04) from 9 ppm to 20 ppm.
11. Correct the GHG PTE.

The flow rate of the cooling towers (EUs: HA26 through HA28, CR09, CP19a through CP19c) are being updated as these ratings are of the condenser pumps found on the units, which are greater than the manufacturers' rating of the units. The permittee requested these changes to reduce the likelihood of a compliance issue for having units on site with a larger rating than what is listed in the permit.

The emergency generator (EU: PH13) update is a reduction in rating so that the nameplate rating is equal to the rating listed in the permit.

The NO_X ppm change (EUs: FMC01 through FMC04) was initiated after the permittee could not meet the 9 ppm limit during burner efficiency tests. The permittee discovered that incorrect boiler specifications were submitted with the original application for these units. Correct specifications were submitted with this permitting action. If the units were permitted with the correct ppm rating when originally permitted in 2019, the potential emissions would still be below the NO_x significance threshold. This results in the units still not being subject to a controls analysis.

The four boilers (EUs: CP41, CP42, CP44, and the new one at the LINQ Complex) the permittee requested to be classified as insignificant are all below 1.0 MMBtu/hr. DES is agreeable to group together boilers/water heaters less than 1.00 MMBtu/hr and classify them as insignificant under AQR 12.5.2.5(c).

The following were documented during an inspection by DAQ Compliance staff:

1. Three cooling towers (EUs: FL29 through FL31) are permitted as 3,800 gpm units but were observed to be run by six 1,500 gpm condenser pumps.

2. Two boilers (EUs: CP01 and CP02) are permitted as 35.40 MMBtu/hr units but were observed to be rated at 33.60 MMBtu/hr each.
3. Three boilers (EUs: PH07 through PH09) permitted at 23.65 MMBtu/hr were observed to be rated at 23.60 MMBtu/hr.
4. The serial number for one generator (EU: CP28) is GX300134, a typographical error in the current permit.
5. The serial number for one boiler (EU: PA30) is 92086497, a typographical error in the current permit.
6. Five units were confirmed as decommissioned (EUs: HA24, CP07, CP18, IP24, and IP37). EUs HA24, CP18, IP24, and IP37 were removed in a previous permitting action. Decommissioned emission units are considered removed from the source.

As the permitted ratings of the units (EUs: FL29 through FL31, CP01, CP02, and PH07 through PH09) are greater than what was observed, no changes will be made until the permittee requests these changes. The serial number for EU CP28 is not changed as the source stated the current serial number, G3X00133, is correct.
The engines subject to 40 CFR Part 60, Subpart IIII, and 40 CFR Part 63, Subpart ZZZZ, at this source must meet the fuel requirements of the subpart. Previously, DAQ concluded that this requirement was met through federal law, which mandated that diesel fuel sold in the United States meet the Subparts IIII ZZZZ standards, and therefore, the source was not required to keep records of diesel fuel sulfur, cetane, or aromatic content. However, EPA Region 9 has deemed this insufficient for compliance. As a result, recordkeeping requirements of the diesel fuel used in the emergency engines have been added to the permit.

Table I-B-1: Updated Emission Units

EU	Description	Rating	Manufacturer	Model No.	Serial No.	SCC
May 9, 2022, Application						
HA26	Cooling Tower, 2-Cells	5,200 gpm[1]	Evapco	USS 244-3O18	17-830216	38500101
HA27	Cooling Tower, 2-Cells	5,200 gpm[1]	Evapco	USS 244-3O18	17-830217	38500101
HA28	Cooling Tower, 2-Cells	5,200 gpm[1]	Evapco	USS 244-3O18	17-830218	38500101
CR09	Cooling Tower, 3-cell	5,850 gpm[1]	Evapco	USS-312-936	13-541894	38500101
CP19a	Cooling Tower, Cell 1 of 3	10,650 gpm[1]	Baltimore Aircoil	4469-20-3W	92-4G-6184-P4	38500101
CP19b	Cooling Tower, Cell 2 of 3	10,650 gpm[1]	Baltimore Aircoil	4469-20-3W	92-4G-6184-P4	38500101
CP19c	Cooling Tower, Cell 3 of 3	10,650 gpm[1]	Baltimore Aircoil	4469-20-3W	92-4G-6184-P4	38500101
PH13	Genset – Emergency	1,750 kW	MTU	1750RXC6DT2	301122-1-1-1208	20300101
	Engine – Diesel DOM: 2008	2,560[1] hp	MTU/Detroit Diesel	T1238A36	5262003725	
FMC01[2]	Boiler	6.00 MMBtu/hr	Lochinvar	FBN6001	1847112615299	10300603
FMC02[2]	Boiler	6.00 MMBtu/hr	Lochinvar	FBN6001	1847112615300	10300603

EU	Description	Rating	Manufacturer	Model No.	Serial No.	SCC
May 9, 2022, Application						
FMC03[2]	Boiler	6.00 MMBtu/hr	Lochinvar	FBN6001	1847112615301	10300603
FMC04[2]	Boiler	6.00 MMBtu/hr	Lochinvar	FBN6001	1847112615298	10300603
DAQ Compliance Findings						
PA30	Natural Gas Pool Heater	1.95 MMBtu/hr	RBI Futera II	FW1950	092086497[1]	10300603
October 18, 2022, ATC Application						
PA37[3]	Diesel Engine Emergency Generator DOM: TBD	2,000 kW 2,848 hp	Caterpillar	SR4B 3516	4FN01705 1HZ00515	20300101
CR07	Diesel Engine Emergency Generator DOM: 2013	1,500 kW 2,206 hp[1]	Caterpillar	SR4B-GD 3512C	G4W01097 EBG01274	20300101
CP28	Emergency Generator DOM: 2008	2,000 kW 2,937 hp[1]	Caterpillar	SR4B-HV 3516CDITA	G3X00133 SBJ00672	20300101
CP29	Emergency Generator DOM: 2008	2,000 kW 2,937 hp[1]	Caterpillar	SR4B-HV 3516CDITA	G3X00229 SBJ00673	20300101
LI06	Emergency Generator DOM: 2012	2,000 kW 2,937 hp[1]	Caterpillar	SR4B-GD 3516C	G4Z00115 SBJ01461	20300101
LI07	Emergency Generator DOM: 2012	2,000 kW 2,937 hp[1]	Caterpillar	SR4B-GD 3516C	G4Z00116 SBJ01460	20300101

Note: DOM: date of manufacture; hp: horsepower; kW: kilowatt; gpm: gallons per minute; MMBtu: millions of British thermal units.
[1]Updated Information.
[2]Updated burner rating only.
[3]Initial incorporation into the Part 70 OP.

DAQ approves of the increase of the gpm rating of the cooling towers (EUs: HA26 through HA28, CR09, and CP19a through CP19c) requested by the source as these ratings are visible on the pump nameplates. In addition, the emissions increase due to this update does not affect the original controls analysis of these units.

Table I-B-2: Removed Emission Units

EU	Description	Rating	Manufacturer	Model No.	Serial No.	SCC
LI11	Natural Gas Water Heater	0.150 MMBtu/hr	AO Smith	BTH-150-100	1304M002358	10300603
CP07	Natural Gas Boiler	1.0 MMBtu/hr	Gasmaster	GMI1	221.02	10300603

C. Operating Scenario

Caesars properties are all hotel and casino facilities and a convention center. Each facility operates 8,760 hours per year. Permitted operating hours and production limits for each emission unit were

provided by the permittee. The emergency engines modified in this permitting action are limited to 500 hours per year for testing and maintenance while the other emission units addressed are permitted to operate 8,760 hours per year.

D. Proposed Exemptions

Caesars has proposed additional insignificant emission units. The current list of insignificant emission units is found in the appendix of this document.

Three existing water heaters (EUs: CP41, CP42, and CP44), all rated less than 1.0 MMBtu/hr, and a new water heater rated at 0.15 MMBtu/hr will be listed as added to the insignificant unit list in the permit.

II. EMISSION IFORMATION

A. Total Source Potential to Emit

The source PTE is based on 8,760 hours of operation per year for all permitted boilers, water heaters, and cooling towers. The emergency units' PTE is based on 500 hours of operation per year. Therefore, the PTE of these emergency units are their applicability emissions. Similarly, the permitted throughput of the GDO is used for PTE and applicability emissions calculations. The emissions from the insignificant boilers and water heaters at 8,760 hours per year each are included in the source applicability emissions. The insignificant dust collectors, paint booths, and diesel tanks are included in the applicability emissions calculation based on their normal production.

Table II-A-1 lists the source's Applicability Emissions and shows that the insignificant units do not make the source major for any additional pollutant.

Table II-A-1: Source Applicability Emissions (tons per year)

Pollutant	PM_{10}	$PM_{2.5}$	NO_x	CO	SO_2	VOC	HAPs
Source PTE	70.57	70.57	453.11	188.16	2.26	27.47	5.90
Applicability Emissions of Insignificant Units	2.93	2.93	3.55	3.22	0.11	4.01	0.30
Source Applicability Emissions	**73.50**	**73.50**	**456.66**	**191.38**	**2.37**	**31.48**	**6.20**
Major Stationary Source Thresholds (Title V)	100	100	100[1]	100	100	100[1]	10/25[2]

[1]Nonattainment area thresholds as well.
[2]10 tpy for single HAP and 25 tpy for combined HAPs.

The calculated source PTE and emissions increase are presented in tables below. For this source, no single HAP is greater than 10 tons per year, therefore the source is not a major source of HAP emissions.

Table II-A-2: Source PTE (tons per year)

Facility	PM_{10}	$PM_{2.5}$	NO_x	CO	SO_2	VOC	HAPs
Harrah's	3.88	3.88	39.17	14.89	0.17	2.86	0.43
Flamingo	6.04	6.04	36.85	18.17	0.23	2.39	0.58
Horseshoe Las Vegas	4.95	4.95	47.05	13.22	0.21	2.63	0.56

Facility	PM_{10}	$PM_{2.5}$	NO_x	CO	SO_2	VOC	HAPs
The Cromwell	0.97	0.97	9.14	4.05	0.08	0.78	0.14
Caesars Palace	23.11	23.11	131.25	33.77	0.69	8.28	1.98
Paris Las Vegas	9.95	9.95	60.75	37.41	0.29	3.41	0.77
The LINQ Hotel & Casino	2.13	2.13	36.26	18.66	0.19	1.83	0.36
Planet Hollywood	12.55	12.55	63.64	37.22	0.22	3.37	0.64
LINQ Complex – High Roller	5.62	5.62	22.84	6.49	0.09	1.10	0.24
Forum Meeting Center	1.38	1.38	6.17	4.29	0.09	0.82	0.21
Battista's	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Totals	**70.57**	**70.57**	**453.11**	**188.16**	**2.26**	**27.47**	**5.90**
Major Source Thresholds	**100**	**100**	**100**[1]	**100**	**100**	**100**[1]	**25/10**[2]

[1]Marginal nonattainment for ozone.
[2]25 tons for combination of all HAPs (no single HAP exceeds 10 tons).

Table II-A-3: Permitting Action Emissions Increase (tons per year)

Pollutant	PM_{10}	$PM_{2.5}$	NO_x	CO	SO_2	VOC	HAPs
Emissions Increase Due to ATC Units (EUs: PA37, CR07, CP28, CP29, LI06, and LI07)	0.10	0.10	12.43	2.47	0.01	0.84	-0.09
Emissions Increase Due to Modified Emission Units (Listed in Table I-B-1)	1.49	1.49	1.40	0.00	0.00	0.00	0.00
Emissions Decrease Due to Removed Units (EUs: CP07 and LI11)	0.04	0.04	0.08	0.27	0.02	0.03	0.02
Emissions Decrease Due to Units Reclassified as Insignificant (EUs: CP41, CP42, and CP44)	0.05	0.05	0.63	0.44	0.03	0.04	0.03
Minor NSR Significance Levels	7.5	5	20	50	20	20	N/A
Major Source Significance	15	10	40	100	40	40	-

Table II-A-3 shows that the emissions increases in this permitting action are below all significance thresholds, therefore controls analyses are not required.

B. Control Technology

A revised controls analysis is not required for correcting the ratings of the cooling towers addressed in this permitting action (EUs: HA26 through HA28, CR09, and CP19a through CP19c). The cooling towers, based on their original permit dates, were required to meet BACT or RACT at the time, which was done with the installed drift eliminators. The increase in ratings for these units does not affect the original controls analyses.

The increase in NO_X emission from the boilers (EUs: FMC01 through FMC04) also does not require a revised controls analysis. When originally permitted in 2019, these units were not subject to a controls analysis. If these units were originally permitted at 20 ppm NO_X, the potential emissions would not have exceeded the NO_X significance threshold in place at that time.

A controls analysis is not required for the emission units included in the ATC issued on February 23, 2023 (EUs: PA37, CR07, CP28, CP29, LI06, and LI07).

C. Production Limitations

No new production limits are added in this permitting action.

D. Compliance Demonstration

No new compliance demonstration requirements are added in this permitting action.

Opacity limits remain unchanged in this permitting action.

E. Performance Testing

No new performance testing requirements are added in this permitting action.

F. Public Participation

Public participation is required for a significant revision under AQR 12.5.2.17.

G. Increment

Caesar's Entertainment Corporation is a major source in Hydrographic Area 212 (the Las Vegas Valley). Permitted emission units include 66 boilers, 49 generators and 28 cooling towers. Since minor source baseline dates for NO_x (October 21, 1988) and SO_2 (June 29, 1979) have been triggered, Prevention of Significant Deterioration (PSD) increment analysis is required.

DAQ modeled the source using AERMOD to track the increment consumption. Average actual emissions (2019-2020) were used in the NO_X modeling. Stack data submitted by the applicant were supplemented with information available for similar emission units. Five years (2011 to 2015) of meteorological data from the McCarran Station were used in the model. U.S. Geological Survey National Elevation Dataset terrain data were used to calculate elevations. Table II-G-1 shows the location of the maximum impact and the potential PSD increment consumed by the source at that location. The impacts are below the PSD increment limits.

Table II-G-1: PSD Increment Consumption

Pollutant	Averaging Period	Source's PSD Increment Consumption (µg/m³)	Location of Maximum Impact	
			UTM X (m)	UTM Y (m)
SO_2	3-hour	3.26[1]	664850	3998350
SO_2	24-hour	1.45[1]	663850	3998650
SO_2	Annual	0.77	663850	3998850
NO_X	Annual	4.73	663850	3998650

[1] Second High Concentration.

III. REGULATORY REVIEW

A. Local Regulatory Requirements

No new local regulations apply to Caesars as a result of this permitting action.

B. Federally Applicable Regulations

No new federal regulations apply to Caesars as a result of this permitting action. Existing applicable regulations are unchanged. The updated emergency generator (EU: PH13) is subject to 40 CFR Part 60, Subpart IIII, and 40 CFR Part 63, Subpart ZZZZ.

IV. COMPLIANCE

No new compliance requirements are added in this permitting action.

The permittee is required to monitor and keep records for all limitations specified in the permit. There are no new monitoring or reporting requirements added in this permitting action.

V. APPENDIX

Table V-1: Summary of Insignificant EU or Activities

Description	Rating/Capacity	Manufacturer	Model No.	Serial No.	Insignificance Reasoning
Harrah's Las Vegas					
Natural Gas Pool Heater	0.726 MMBtu/hr	Raypak	P-724	1404376451	Pre-2010 AQR <10 MMBtu/hr Aggregate
Spray Paint Booth	NA	Global Finishing Solutions	FP10812.100	NA	AQR 12.5.2.5(c) Insignificant Grouped Activity
Dust Collector	4,550 cfm	Murphy-Rodgers	MRM-12-4D(42B)	1839	Ancillary Woodworking
Flamingo Las Vegas					
Dust Collector	2,600 cfm	Murphy-Rodgers	MRM-10-2D	1181	Ancillary Woodworking
Abrasive Blast Cabinet	NA	Badboy Blasters, Inc.	BB-3000-XLD	NA	Maintenance and Upkeep Activity
Diesel UST	8,000 gal	NA	NA	NA	Insignificant Storage Tank
Diesel UST	1,000 gal	NA	NA	NA	
Horseshoe Las Vegas					
Spray Paint Booth	NA	Spray King	200FAFC	659-1	AQR 12.5.2.5(c) Insignificant Grouped Activity
Abrasive Blast Cabinet w/Dust Collector	NA	Econoline Syphon; Dayton	36-1; 2Z982H	NA	Maintenance and Upkeep Activity

Dust Collector	NA	Cincinnati Fan and Ventilator Company	100S	G006678	Ancillary Woodworking
Dust Collector	NA	Cincinnati Fan and Ventilator Company	100S	G006766	
Dust Collector	NA	Cincinnati Fan and Ventilator Company	100S	G006769	
Dust Collector	NA	Cincinnati Fan and Ventilator Company	100S	G006768	
Dust Collector	NA	Cincinnati Fan and Ventilator Company	100S	G006677	
Diesel AST	12,150 gal	NA	NA	NA	Insignificant Storage Tank
Diesel UST	2,000 gal	NA	NA	NA	
Diesel AST	300 gal	NA	NA	NA	
Diesel AST	300 gal	NA	NA	NA	
Diesel AST	300 gal	NA	NA	NA	
Caesars Palace					
Spray Paint Booth	NA	Spray King	200-P	NA	AQR 12.5.2.5(c) Insignificant Grouped Activity
Dust Collector	NA	Pollution International	33N375	NA	Ancillary Woodworking
Natural Gas Pool Heater	0.400 MMBtu/hr	Pentair	460775	1118310130019Y	Pre-2010 AQR <10 MMBtu/hr Aggregate
Natural Gas Pool Heater	0.400 MMBtu/hr	Pentair	460775	1118230120110G	
Diesel AST	575 gal	NA	NA	NA	Insignificant Storage Tank
Diesel AST	575 gal	NA	NA	NA	
Natural Gas Boiler (Kitchen)	0.199 MMBtu/hr	Lochinvar	SNR200-100	J10C20021904	Noncommercial Food Preparation
Natural Gas Boiler (Kitchen)	0.199 MMBtu/hr	Lochinvar	SNR200-100	D12C20037269	
Natural Gas Water Heater[1]	0.25 MMBtu/hr	A.O. Smith	BTH250A200	1615M000633	AQR 12.5.2.5(c) Insignificant Grouped Activity
Natural Gas Water Heater[1]	0.25 MMBtu/hr	A.O. Smith	BTH250A100	0826M001486	
Natural Gas Water Heater[1]	0.999 MMBtu/hr	Lochinvar	PBN1002	A15H00273568	
Paris Las Vegas					
Spray Paint Booth	NA	Spray Systems	I-887	NA	AQR 12.5.2.5(c) Insignificant Grouped Activity

Dust Collector	NA	Donaldson Torit	UMA358K11AD	97-1572	Ancillary Woodworking
Natural Gas Boiler	0.39 MMBtu/hr	A.O. Smith	BTR400A-118	1307M001458	Pre-2010 AQR <10 MMBtu/hr Aggregate
Natural Gas Boiler	0.39 MMBtu/hr	A.O. Smith	BTR400A-118	1027M001734	
Sandblasting Cabinet	NA	NA	NA	NA	Ancillary Woodworking
Diesel UST	8,000 gal	NA	NA	NA	Insignificant Storage Tank
The LINQ Hotel & Casino					
Dust Collector	NA	Air Sentry, Inc.	205D550F	1216	Ancillary Woodworking
Planet Hollywood					
Natural Gas Boiler	0.650 MMBtu/hr	Lochinvar	CB0645	L008207	Pre-2010 AQR <10 MMBtu/hr Aggregate
Natural Gas Boiler	0.650 MMBtu/hr	Lochinvar	CB0645	L008208	
Natural Gas Boiler	0.300 MMBtu/hr	Lochinvar	CPN0300	D004949	
Natural Gas Boiler	0.300 MMBtu/hr	Lochinvar	CPN0300	D004950	
Spray Paint Booth	NA	NA	NA	NA	AQR 12.5.2.5(c) Insignificant Grouped Activity
Dust Collector	1,500 cfm	Torit	RVS15	I6600032-001	Ancillary Woodworking
Cooking Oil AST	488 gal	NA	NA	NA	AQR 12.5.2.5(a)(21) Storage Tank
LINQ Complex – High Roller					
Natural Gas Water Heater[1]	0.150 MMBtu/hr	A.O. Smith	BTH-150-300	2102122746244	AQR 12.5.2.5(c) Insignificant Grouped Activity
Battista's					
Natural Gas Boiler (Kitchen)	0.150 MMBtu/hr	Trane	YCH150C3L0BB	NA	Noncommercial Food Preparation
Natural Gas Boiler (Kitchen)	0.150 MMBtu/hr	Trane	YCH150C3L0BB	NA	
Natural Gas Boiler (Kitchen)	0.150 MMBtu/hr	Trane	YCH150C3L0BB	NA	
Natural Gas Boiler (Kitchen)	0.150 MMBtu/hr	Trane	YCH150C3L0BB	NA	
Natural Gas Boiler (Kitchen)	0.150 MMBtu/hr	Trane	YCH150C3L0BB	NA	
Natural Gas Boiler (Kitchen)	0.075 MMBtu/hr	A.O Smith	BT-100	NA	
Natural Gas Boiler (Kitchen)	0.075 MMBtu/hr	A.O Smith	BT-100	NA	

Natural Gas Boiler (Kitchen)	0.075 MMBtu/hr	A.O Smith	BT-100	NA	

[1]New insignificant activity.

Table V-2: Revised Cooling Tower PTE

EU	Description	Drift Loss % (1)	Flow Rate (gal/min)	TDS (mg/l)	Hours of Operation		PM10 Emissions	
					hr/day	hr/yr	lb/hr	ton/yr
HA26	Cooling Tower	0.001%	5200	5000	24	8760	0.06	0.27
HA27	Cooling Tower	0.001%	5200	5000	24	8760	0.06	0.27
HA28	Cooling Tower	0.001%	5200	5000	24	8760	0.06	0.27
CR09	Cooling Tower	0.001%	5850	5000	24	8760	0.07	0.30
CP19a	Cooling Tower	0.005%	10650	5000	24	8760	0.63	2.76
CP19b	Cooling Tower	0.005%	10650	5000	24	8760	0.63	2.76
CP19c	Cooling Tower	0.005%	10650	5000	24	8760	0.63	2.76
							2.14	**9.39**

Table V-3: Revised PTE for EU PH13

EU#	PH13	**Horsepower:**	2,560	
Make:		**Hours/Day:**	24.0	
Model:		**Hours/Year**	500	
S/N:				
Manufacturer Guarantees				
PM10	0.2	g/kW-hr		
NOx	6.08	g/kW-hr		
CO	3.5	g/kW-hr		
SO_2		g/kW-hr		
VOC	0.32	g/kW-hr		
Engine Type:	Diesel			

	Emission Factor (lb/hp-hr)	Control Efficiency	Potential Emissions		
			lb/hr	lb/day	ton/yr
PM10	3.29E-04	0.00%	0.84	20.20	0.21
NOx	1.00E-02	0.00%	25.59	614.12	6.40
CO	5.75E-03	0.00%	14.73	353.52	3.68
SO_2	1.21E-05	0.00%	0.03	0.75	0.01
VOC	5.26E-04	0.00%	1.35	32.32	0.34
HAP	1.10E-05	0.00%	0.03	0.68	0.01

Diesel Fuel Sulfur Content is 15 ppm (0.0015%)

Table V-4: Revised PTE for EUs FMC01 through FMC04

				Emission Factor (lb/mmBtu)	Potential Emissions		
					lb/hr	lb/day	ton/yr
EU#:	FMC01-FMC04						
Make:							
Model:			**PM10**	0.0075	0.05	1.08	0.20
S/N:			**PM2.5**	0.0075	0.05	1.08	0.20
			NOx	0.0243	0.15	3.50	0.64
6.0	mmBtu/hr		**CO**	0.0370	0.22	5.33	0.97
24.0	hr/day		**SO_2**	6.00E-04	0.01	0.09	0.02
8760	hr/yr		**VOC**	0.0054	0.03	0.78	0.14
			HAP	1.90E-03	0.01	0.27	0.05
BACT:		%O2	**Lead**	4.90E-07	2.94E-06	7.06E-05	1.29E-05
20	ppm NOx	3.0					
50	ppm CO	3.0					
Fuel:	Natural Gas						

Table V-5: PTE for ATC Emission Units (EUs: PA37, CR07, CP28, CP29, LI06, and LI07)

EU#	PA37	Horsepower:	2,848
Make:	Caterpillar	Hours/Day:	24.0
Model:		Hours/Year	500
S/N:			

Manufacturer Guarantees		
PM10	0.07	g/hp-hr
NOx	9.5	g/hp-hr
CO	1.1	g/hp-hr
SO_2		g/hp-hr
VOC	0.26	g/hp-hr

Engine Type: Diesel

	Emission Factor (lb/hp-hr)	Control Efficiency	Potential Emissions lb/hr	Potential Emissions lb/day	Potential Emissions ton/yr
PM10	1.54E-04	0.00%	0.44	10.55	0.11
NOx	2.09E-02	0.00%	59.65	1431.57	14.91
CO	2.43E-03	0.00%	6.91	165.76	1.73
SO_2	1.21E-05	0.00%	0.03	0.83	0.01
VOC	5.73E-04	0.00%	1.63	39.18	0.41
HAP	1.10E-05	0.00%	0.03	0.75	0.01

Diesel Fuel Sulfur Content is 15 ppm (0.0015%)

EU#	CR07	Horsepower:	2,206
Make:	Caterpillar	Hours/Day:	24.0
Model:		Hours/Year	500
S/N:			

Manufacturer Guarantees		
PM10	0.04	g/hp-hr
NOx	6.38	g/hp-hr
CO	0.84	g/hp-hr
SO_2		lb/hp-hr
VOC	0.16	g/hp-hr

Engine Type: Diesel

	Emission Factor (lb/hp-hr)	Control Efficiency	Potential Emissions lb/hr	Potential Emissions lb/day	Potential Emissions ton/yr
PM10	8.82E-05	0.00%	0.19	4.67	0.05
NOx	1.41E-02	0.00%	31.03	744.69	7.76
CO	1.85E-03	0.00%	4.09	98.05	1.02
SO_2	1.21E-05	0.00%	0.03	0.64	0.01
VOC	3.53E-04	0.00%	0.78	18.68	0.19
HAP	1.10E-05	0.00%	0.02	0.58	0.01

Diesel Fuel Sulfur Content is 15 ppm (0.0015%)

EU#	CP28,CP29, LI06, &LI07	Horsepower:	2,937
Make:	Caterpillar	Hours/Day:	24.0
Model:		Hours/Year	500
S/N:			

Manufacturer Guarantees		
PM10	0.04	g/hp-hr
NOx	6.56	g/hp-hr
CO	0.54	g/hp-hr
SO_2		g/hp-hr
VOC	0.14	g/hp-hr

Engine Type: Diesel

	Emission Factor (lb/hp-hr)	Control Efficiency	Potential Emissions lb/hr	Potential Emissions lb/day	Potential Emissions ton/yr
PM10	8.82E-05	0.00%	0.26	6.22	0.06
NOx	1.45E-02	0.00%	42.48	1019.43	10.62
CO	1.19E-03	0.00%	3.50	83.92	0.87
SO_2	1.21E-05	0.00%	0.04	0.86	0.01
VOC	3.09E-04	0.00%	0.91	21.76	0.23
HAP	1.10E-05	0.00%	0.03	0.78	0.01

Diesel Fuel Sulfur Content is 15 ppm (0.0015%)