

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGE	1
ENGINEERING AND COMPLIANCE DIVISION	APPL. NO.	See below
APPLICATION PROCESSING AND CALCULATION	PROCESSED BY	HD
	CHECKED BY	
	DATE	01/10/13

**PERMIT TO
CONSTRUCT/OPERATE EVALUATION**

Applicant's Name	UNIVERSAL CITY STUDIOS
Company ID	800202
Mailing Address	100 UNIVERSAL CITY PLAZA, UNIVERSAL CITY, CA 91608
Equipment Address	3900 LANKERSHIM BLVD., UNIVERSAL CITY, CA 91608

EQUIPMENT DESCRIPTION:

A/N 545953 (New Construction)

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. C-18, DIESEL-FUELED, 6 CYLINDERS, TURBOCHARGED, AFTERCOOLED, 900 BHP, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

A/N 545954 (New Construction)

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. C-18, DIESEL-FUELED, 6 CYLINDERS, TURBOCHARGED, AFTERCOOLED, 900 BHP, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

A/N 5459355

TITLE V REVISION APPLICATION, DEMINIMUS PERMIT REVISION.

BACKGROUND:

Universal Studios submitted these permit applications as Class I (New Construction) on 12/20/12 for Permits to Construct/Operate two internal combustion engines driving 2 emergency generators. This is an existing facility operating under EPA's Title V Facility permit. This facility has permits to operate emergency engines, emergency fire water pumps, Spray Booths, an oven, Neg. Air Machines, Diesel-fueled pressure washers, an Intra-facility portable abrasive blasting machine, a Film Cleaning Machine with Carbon Adsorber, 2 Gasoline fuel dispensing stations, and a landfill gas collection and treatment system.

This is a Title V facility and currently operates under a Title V facility permit that was first issued on August 16, 2002. The facility permit was renewed on November 7, 2012. This is the 1st revision after the renewal was issued. Review of the compliance files for this facility reveal that there are no records of nuisance complaints or notices to comply or violations during in last two years.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGE	2
ENGINEERING AND COMPLIANCE DIVISION	APPL. NO.	See below
APPLICATION PROCESSING AND CALCULATION	PROCESSED BY	HD
	CHECKED BY	
	DATE	01/10/13

PROCESS DESCRIPTION:

The facility is a movie and television studio /themepark. The emergency engines provide power to on-site buildings in case of utility power outage. The operating hours are 1 hr/day, 1 day/week, and 50 weeks/yr.

EMISSIONS AND ANALYSIS:

The proposed engines are identical and EPA Certified Tier 2 engines. This engine is pre-certified by the district . The emission factors were taken from the district application files when the manufacturer applied for certified permit. For emission calculations, please refer to attached spreadsheet and summary below.

	VOC	NOx	SOx	CO	PM	PM10
Emission factor, g/HP-hr	0.05	4.17	0.0049	0.43	0.051	0.05
lb/hr	0.10	8.27	0.01	0.85	0.10	0.10
lb/day Max.	0	8	0	1	0	0
lb/day Avg.	0	1.16	0	0.12	0	0
lb/yr	4.96	413.69	0.49	42.66	5.06	4.86

Note: The above calculations are for one engine.

RULES:

- Rule 212(c)(1): This section requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school. Since there are no schools within 1,000 feet of the facility, a public notice will not be required per this section.
- Rule 212(c)(2) & (g): These sections require a public notice for all new or modified facilities which have on-site emission increases for the equipment or the facility exceeding any of the daily maximums as specified in subdivision (g). Since the daily emissions are less than specified in section (g), public notice will not be required by this section.
- Rule 212(c) (3): The MICR is less than 1 in-a million resulting from the use of emergency ICE. Therefore, a public notice will not be required per this section.
- Rule 401 With proper operation of this equipment, the visible emissions from the engines are not likely to violate requirements of this rule.
- Rule 402 Operation of equipment is not expected to create a nuisance.
- Rule 1110.2 Emergency engines are exempt from requirements of this rule.
- REG. XIII BACT for this engine is EPA Tier 2 certified emissions. This engine is certified by EPA to meet Tier 2 emissions standards as below.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGE	3
ENGINEERING AND COMPLIANCE DIVISION	APPL. NO.	See below
APPLICATION PROCESSING AND CALCULATION	PROCESSED BY	HD
	CHECKED BY	
	DATE	01/10/13

BACT REQUIREMENTS (TIER 2 ENGINES)

	NO_x + ROG (Gm/bhp-hr)	CO (Gm/bhp-hr)	PM (Gm/bhp-hr)
Required	4.8	2.6	0.15
Actual	4.22	0.43	0.051
Compliance	Yes	Yes	Yes

Emergency engines are exempt from Modeling and Offset requirements per section 1304 (a) (4) of Reg. XIII.

Rule 1401: Emergency engines are exempt from the requirements of this rule as per section (g)(1)(F).

Rule 1470: The engines are meeting NO_x+ROG and CO emissions standards specified in Table 2 of paragraph (c) (2)(C) (viii) of the rule is summarized below:

	NO_x + ROG (Gm/bhp-hr)	CO (Gm/bhp-hr)
Required	4.8	2.6
Actual	4.22	0.43
Compliance	Yes	Yes

For PM emissions limit compliance, the engines are expected to emit 0.051 gm/bhp-hr, which is lower than required 0.15 gm/bhp-hr in paragraph (c) (2)(C) (iii) of the rule for engines. Therefore, compliance with this rule is expected.

Rule 1472: The facility has more than 3 emergency engines on site. A R1472 compliance plan filed under a/no. 494255 was approved for the facility on February 25, 2011. A new plan will be required when the facility installs this engine to re-calculate the facility engine index with the addition.

40 CFR, Part 60, Subpart III Section d of this subpart requires the engines < 3000 BHP manufactured after 2007 meet appropriate Tier 2 or Tier 3 standards as applicable based on the horsepower. Since these engines are >= 751 BHP, Tier 2 standards apply and are summarized below:

TIER 2 ENGINES

	NO_x + ROG (Gm/bhp-hr)	CO (Gm/bhp-hr)	PM (Gm/bhp-hr)
Required	4.8	2.6	0.15
Actual	4.22	0.43	0.051
Compliance	Yes	Yes	Yes

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGE	4
ENGINEERING AND COMPLIANCE DIVISION	APPL. NO.	See below
APPLICATION PROCESSING AND CALCULATION	PROCESSED BY	HD
	CHECKED BY	
	DATE	01/10/13

Other Requirements in the NSPS for New CI Emergency Engines

	NSPS Requirement	Proposed Equipment	Compliance
New Engine	Manufactured after 7/1/2006	Manufactured 2012	Yes
Emission Standards Post 2007 model year	Tier 2 standards	The engine meets Tier 2 standards.	Yes
Fuel Requirement	Ultra low sulfur diesel (15 ppmw)	Included in permit condition	Yes
Monitoring/Recordkeeping/Reporting	Non-resettable hour meters and records of operation	Included in permit condition	Yes
Reporting	None	None	Not applicable

40 CFR, Part 60,
Subpart JJJJ

The requirements of this subpart are not applicable to Compression Ignition engines.

40 CFR, Part 63,
Subpart ZZZZ

The facility is an Area Source for HAPs. The requirements of this Subpart are therefore applicable. The engine was purchased post June 12, 2006 and therefore is considered new engine.

	NESHAP Requirement	Proposed Equipment	Compliance
New Engine	Ordered After June 12, 2006	After June 12, 2006	Yes
Emission Standards	Meet NSPS standards	Yes (Complies with emissions standard in III)	Yes
Operating Limitations	None	200 hrs/yr Included in permit condition	Yes
Fuel Requirement	None	Ultra low sulfur diesel (15 ppmw) Included in permit condition	Yes
Requirements	No limits on hours for emergency service	200 hours per year included in permit condition	Yes
	100 hrs/yr for maintenance and testing	50 hrs/yr for maintenance and testing	Yes
	No peak shaving or demand response program	Included in the permit condition as part to R1470 compliance	Yes
Compliance requirements	Initial notification if >500 HP only at Major source	Engine is >500HP but not located at a Major source	N/A
Notification	None	None	Yes
Reporting	None	None	Yes

Regulation XX:

The facility is not under RECLAIM program.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGE	5
ENGINEERING AND COMPLIANCE DIVISION	APPL. NO.	See below
APPLICATION PROCESSING AND CALCULATION	PROCESSED BY	HD
	CHECKED BY	
	DATE	01/10/13

Regulation XXX:

The installation of new emergency engines is considered as a “deminimus permit revision” to the Title V permit for this facility

Rule 3000(b)(6) defines a “deminimus permit revision” as any Title V permit revision where the cumulative emission increases of non-RECLAIM pollutants or hazardous air pollutants (HAPs) from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

Air Contaminant	Daily Maximum (lbs/day)
HAP	30
VOC	30
NO _x	40
PM ₁₀	30
SO _x	60
CO	220

To determine if a project is considered as a “deminimus permit revision” for non-RECLAIM pollutants or HAPs, emission increases for non-RECLAIM pollutants or HAPs resulting from all permit revisions that are made after the issuance of the Title V renewal permit shall be accumulated and compared to the above threshold levels. This proposed project is 1st permit revision to the Title V renewal permit issued to this facility on November 7, 2012. The following table summarizes the cumulative emission increases resulting from all permit revisions since the Title V renewal permit was issued.

Title V Permit Revisions Summary

	Revision	HAP	VOC	NO_x	PM₁₀	SO_x	CO
	Renewal issued 11/7/2012	0	0	0	0	0	0
1 st	Permit Revision: Installation of 2 New Emergency Engines (a/no. 545953-4).	0	0	2	0	0	0
	Cumulative Total	0	0	2	0	0	0
	Maximum Daily	30	30	40	30	60	220

Since the cumulative emission increases resulting from permit revision are not greater than any of the emission threshold levels, this proposed project is considered as a “deminimus permit revision”.

CONCLUSION:

The proposed project is expected to comply with all applicable District Rules and Regulations. Also, since the proposed project is considered as a “deminimus permit revision”, it is exempt from the public participation requirements under Rule 3006 (b). A proposed facility permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not have any objections within the review period, a revised Title V permit will be issued to this facility subject to conditions below:

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGE	6
ENGINEERING AND COMPLIANCE DIVISION	APPL. NO.	See below
APPLICATION PROCESSING AND CALCULATION	PROCESSED BY	HD
	CHECKED BY	
	DATE	01/10/13

CONCLUSION:

The proposed project is expected to comply with all applicable District Rules and Regulations. Therefore, a revised Title V permit will be issued to this facility subject to conditions below:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING.
[RULE 1304 (a), RULE 1110.2, RULE 1470, 40 CFR63 SUBPART ZZZZ]
4. AN OPERATIONAL NON-RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1304 (a), RULE 1110.2, RULE 1470, 40 CFR60 SUBPART III]
5. THE OPERATION OF ENGINE BEYOND 50 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE ELECTRICAL GRID OPERATOR OR ELECTRIC UTILITY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.
[RULE 1304 (a), RULE 1470]
6. AN ENGINE OPERATING LOG SHALL BE KEPT AND SHALL DOCUMENT THE TOTAL TIME THE ENGINE IS OPERATED EACH MONTH AND SPECIFIC REASON FOR OPERATION AS:
 - A. EMERGENCY USE.
 - B. MAINTENANCE AND TESTING.
 - C. OTHER (DESCRIBE THE REASON FOR OPERATING).

IN ADDITION, EACH TIME THE ENGINE IS MANUALLY STARTED, THE LOG SHALL INCLUDE THE DATE OF OPERATION, THE SPECIFIC REASON FOR OPERATION, AND THE TIME METER READING (IN HOURS AND TENTHS OF HOURS) AT THE BEGINNING AND END OF OPERATION.
[RULE 1303(b) (2)-OFFSET, RULE 1110.2, RULE 1470, 40 CFR60 SUBPART III]

7. ON OR BEFORE JANUARY 15 TH OF EACH YEAR, THE OPERATOR SHALL RECORD IN THE ENGINE OPERATING LOG THE FOLLOWING:

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGE	7
ENGINEERING AND COMPLIANCE DIVISION	APPL. NO.	See below
APPLICATION PROCESSING AND CALCULATION	PROCESSED BY	HD
	CHECKED BY	
	DATE	01/10/13

- A. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR, AND
- B. THE TOTAL HOURS OF ENGINE OPERATION FOR MAINTENANCE AND TESTING FOR THE PREVIOUS CALENDAR YEAR.

ENGINE OPERATING LOG SHALL BE RETAINED ON SITE FOR A MINIMUM OF FIVE CALENDAR YEARS AND SHALL BE MADE AVAILABLE TO THE EXECUTIVE OFFICER OR REPRESENTATIVE UPON REQUEST.

[RULE 1303(b) (2)-OFFSET, RULE 1110.2, RULE 1470, 40 CFR60 SUBPART III]

- 8. THE OPERATOR SHALL NOT USE ANY DIESEL FUEL UNLESS THE FUEL IS LOW SULFUR DIESEL FOR WHICH THE SULFUR CONTENT SHALL NOT EXCEED 15 PPM BY WEIGHT AS SUPPLIED BY THE SUPPLIER.
[RULE 431.2, 40 CFR60 SUBPART III]

- 9. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ITS ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470, 40 CFR60 SUBPART III]

Emissions And Requirements:

- 10. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

NO _x + VOC	4.8 GRAMS/BHP-HR, RULE 1303(a)-BACT, 40CFR60 SUBPART III
CO	2.6 GRAMS/BHP-HR, RULE 1303 (a)-BACT, 40CFR60 SUBPART III
PM	0.15 GRAMS/BHP-HR, RULE 1303 (a)-BACT, 40CFR60 SUBPART III
PM:	RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM:	RULE 1472
HAPS:	40CFR63 SUBPART ZZZZ, SEE APPENDIX J FOR REQUIREMENTS