



South Coast Air Quality Management District



21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

October 24, 2012

Mr. Gerardo Rios
Chief – Permits Office
U. S. EPA, Region IX
75 Hawthorne Street, Air 3
San Francisco, CA 94105

Dear Mr. Rios:

Subject: LA County Harbor UCLA Medical Center (ID 800312) – Title V Permit
Revision (Application No. 526111)

Harbor UCLA Medical Center has proposed to revise their Title V permit by adding two new diesel fired emergency generator engines. This is a medical care facility (SIC 8060) located at 1000 West Carson St., Torrance, CA 90509. This proposed permit revision is considered a “significant permit revision” to their Title V permit. Attached for your review are the permit evaluation and proposed Section D. With your receipt of the proposed Section D today, we will note that the EPA 45-day review period begins on October 24, 2012.

If you have any questions or need additional information regarding the proposed permit revision, please call Chris Perri at (909) 396-2696.

Very truly yours,

Brian L. Yeh
Senior Manager
Chemical, Mechanical & Public Services

BLY:AYL:JTY:cgp

cc: Jose Mendoza, LA County Harbor-UCLA Medical Center

Attachments



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APPL NO.
517831,2

DATE
10/23/2012

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PERMIT TO OPERATE EVALUATION

APPLICANT:

LA County, Harbor UCLA Medical Center
1000 W. Carson St
Torrance, CA 90509
Facility ID# 800312

EQUIPMENT LOCATION:

1000 W. Carson St
Torrance, CA 90509

EQUIPMENT DESCRIPTION:

A/N 517831

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL 3516C-DITA, DIESEL FUELED, 16 CYLINDERS, TURBOCHARGED, AFTERCOOLED, RATED AT 2937 BHP, WITH A DIESEL PARTICULATE FILTER, JOHNSON MATTHEY, MODEL CRT, AND A DATA LOGGING AND ALARM SYSTEM, DRIVING AN EMERGENCY GENERATOR.

A/N 517832

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL 3516C-DITA, DIESEL FUELED, 16 CYLINDERS, TURBOCHARGED, AFTERCOOLED, RATED AT 2937 BHP, WITH A DIESEL PARTICULATE FILTER, JOHNSON MATTHEY, MODEL CRT, AND A DATA LOGGING AND ALARM SYSTEM, DRIVING AN EMERGENCY GENERATOR.

COMPLIANCE RECORD REVIEW:

A check of the AQMD database shows there is 1 NOV and 1 NC pertaining to this facility for the last 5 years, as summarized below:

Notice #	Violation Date	Reason
D23993	12/21/10	Perform asbestos inspection
P50710	8/21/08	Failure to submit semi annual and annual reports



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BACKGROUND:

These Class I applications were submitted on December 30, 2010 for 2 identical emergency generators to be located at Harbor UCLA Medical Center.

PROCESS DESCRIPTION:

The units are identical Caterpillar engines fired on diesel fuel and rated at 2937 hp and 2000 kw. The purpose of the engines is to provide electrical power in case of emergency. Following are the engine specifications:

Engine Manufacturer	Caterpillar
Model Number	3516C-DITA
Maximum Rating	2937 hp @ 1800 rpm
Maximum Fuel Consumption	138 gallons per hour
Maximum Exhaust Flow	5'562 dscfm, 15,147 acfm
Exhaust Temperature	762 °F
Configuration	16 cylinder, 4 cycle, turbocharged/aftercooled

The engines are also equipped with Johnson Matthey CRT diesel particulate filters. California Air Resources Board has verified that this filter reduces PM by 85%. Requirements for effective emission reduction include exhaust gas temperature above 240° C (465° F) for at least 40% of the operating time, and cleaning the filter after 24 consecutive cold starts

EMISSIONS:

These are EPA Tier 2 certified engines. Emission factors are from the AQMD certification file (A/N 449979). The controlled emission rate of PM reflects an 85% reduction.

Pollutant	EF uncontrolled (g/bhp-hr)	EF controlled (g/bhp-hr)
RHC	0.25	0.25
NOx	3.93	3.93
SOx	0.005	0.005
CO	0.49	0.49
PM10	0.082	0.01



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The emission summary is shown below:

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Pollutant	Maximum Emissions, Uncontrolled		Maximum Emissions, Controlled		30 Day Average Emissions	Annual Emissions
	Lbs/hr	lbs/day	Lbs/hr	Lbs/day	lbs/day	lbs/yr
RHC	1.62	38.81	1.62	38.81	0.23	81
NOx	25.42	610.17	25.42	610.17	3.56	1271
SOx	0.03	0.78	0.03	0.78	0.00	2
CO	3.17	76.08	3.17	76.08	0.44	158
PM10	0.53	12.73	0.06	1.44	0.01	3

Notes:

Maximum daily emissions are based on 24 hrs/day operation

30 day average emissions are based on 50 hours/yr or 4.2 hours per month operation.

Annual emissions are based on 50 hrs/yr

A/N 517832

Pollutant	Maximum Emissions, Uncontrolled		Maximum Emissions, Controlled		30 Day Average Emissions	Annual Emissions
	Lbs/hr	lbs/day	Lbs/hr	Lbs/day	lbs/day	lbs/yr
RHC	1.62	38.81	1.62	38.81	0.23	81
NOx	25.42	610.17	25.42	610.17	3.56	1271
SOx	0.03	0.78	0.03	0.78	0.00	2
CO	3.17	76.08	3.17	76.08	0.44	158
PM10	0.53	12.73	0.06	1.44	0.01	3

Notes:

Maximum daily emissions are based on 24 hrs/day operation

30 day average emissions are based on 50 hours/yr or 4.2 hours per month operation.

Annual emissions are based on 50 hrs/yr

EVALUATION:

Rule 212 – Standards for Approving Permits

There are no schools within 1000 feet of the equipment (the closest school is Harbor – UCLA Children’s Center about 0.2 miles to the north), 30 day average emissions do not exceed the daily threshold limits of the rule, and the cancer risk is less than 1 in a million. Therefore, no public notice is required.

Rule 401 – Visible Emissions

Visible emissions violations are not expected.

Rule 402 – Nuisance

Nuisance problems are not expected.



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Rule 404 – Particulate Matter Concentration

This rule restricts the discharge of PM from the engines, with the limit being based on the exhaust flow. Approximate exhaust flow is about 5562 dscfm. At this exhaust flow rate, the Rule 404 limit is about 0.097 gr/scf. The engine is expected to comply with this limit based on the following calculation:

$$(0.53 \text{ lbs/hr} * 7000 \text{ gr/lb}) / (5562 * 60) \text{ dscfh} = 0.011 \text{ gr/scf}$$

Rule 431.2 – Sulfur Content of Liquid Fuels

The applicant is expected to comply with the requirements that the maximum sulfur content of diesel fuel used in these engines cannot exceed 500 ppm, if the fuel was purchased prior to June 1, 2004, and that only 15 ppm sulfur fuel can be purchased after June 1, 2004.

Rule 1110.2 – IC Engines

Emergency engines are exempt from this rule by paragraph (i)(2).

Regulation XIII – New Source Review

Emergency engines are exempt from offsets and modeling under paragraph (a)(4) – Emergency Equipment, provided the equipment does not operate more than 200 hrs/yr, and is only operated to provide nonutility emergency electrical power. The engine is required to meet BACT. The required emergency diesel engine BACT is compared to the provided BACT in the table below:

Pollutant	Required BACT	Engine Emissions	Compliance
	gr/bhph	gr/bhph	
CO	2.6	0.49	Yes
PM10	0.15	0.082	Yes
NOx+NMHC	4.8	4.18	Yes

BACT limits are taken from AQMD BACT Guidelines, Tier 2, for engines > 750 hp.

The emissions of PM10 are greater than 1 lb/day (before addition of the DPF), and the facility is a Major Source. Major Source LAER for emergency engines has been established as the use of a DPF (see Claremont Manor A/N 387480). Therefore, the engines at Harbor-UCLA are required to install DPF's. The facility was notified of this requirement in an email dated 8/24/11. The facility notified AQMD that they would install the DPF in an email dated 10/11/12.

Rule 1401 – Carcinogenic Air Contaminants

Emergency engines are exempt from this rule by paragraph (g)(F). Toxic emissions are calculated in Appendix A for Rule 212 purposes.

Rule 1470 – Air Toxics Control Measure

This rule, adopted on April 2, 2004, applies to existing and new stationary diesel engines, both emergency and non-emergency. Requirements include specifying that new engines must meet the Off Road Compression-Ignition Standards (Title 13, CCR section 2423) for NOx, ROG, and CO emissions, limiting the PM emissions for all new and existing engines, and restricting the use of emergency engines, especially those near schools. This engine will not be located within 100 meters of a school.



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The rule requires the following for this engine:

1. CARB diesel only
2. Operation limited to no more than 50 hours/yr for maintenance and testing (since the PM emission rate is less than 0.15 g/bhp-hr)¹
3. Meet the applicable EPA off-road engine standards (Tier 2 for this engine)
4. Install a non-resettable operating time meter
5. Maintain an engine operating hours log book

The engine will be conditioned accordingly, and compliance is expected.

Rule 1472 – Multiple Emergency Diesel Engines

The facility has not submitted a compliance plan at this time. The facility has been notified that a plan is required.

Regulation XX – Reclaim

The facility is not subject to Reclaim.

Regulation XXX – Title V

The facility is subject to Title V. An initial Title V permit was issued on 7/26/05, and expired on 7/25/10. The facility has applied for a Title V renewal under A/N 505487, which was submitted on time to receive an application shield. The Title V renewal application is still being processed and the facility is currently operating under its application shield.

The addition of the 2 emergency generators is considered a significant revision to the Title V permit because the equipment is subject to the IC engine NESHAPs. As a significant revision, the proposed permit is subject to a 30 day public notice as well as the 45 day review and comment period by US EPA.

40 CFR60 Subpart IIII – NSPS for Stationary Compression Ignition Engines

The manufacturer of model year 2007 and later emergency engines greater than 50 hp but less than 3000 hp must certify their engines to the standards of 40 CFR 89.112 and 40 CFR 89.113 (Tier 2 standards for this engine)². The diesel fuel must meet the requirements of 40 CFR 80.510(a) (500 ppm sulfur until 7/1/10 when it's reduced to 15 ppm sulfur). A non-resettable timer is required. Compliance is expected.

40 CFR63 Subpart ZZZZ – RICE MACT

The Harbor-UCLA facility is an area source for HAPs (no single HAP over 10 tpy, and combined HAPs less than 25 tpy). The MACT standard for a new engine located at an area source is to meet the stationary engine NSPS. For compression engines, this is subpart IIII.

¹ Although R1470 allows up to 100 hours per year operation for engines with a PM10 emission rate less than 0.01 gr/bhp-hr, BACT for new engines allows a maximum of 50 hours per year.



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Public Notice Requirements

Rule 3006 requires that a public notice be published in a newspaper of general circulation in the county where the source is located, and sent to those who request in writing to be on a list and other means determined by the EO to insure adequate notice to the affected public. Rule 3006 also requires that the notice contain the following:

- i) The identity and location of the affected facility;
- (ii) The name and mailing address of the facility's contact person;
- (iii) The identity and address of the South Coast Air Quality Management District as the permitting authority processing the permit;
- (iv) The activity or activities involved in the permit action;
- (v) The emissions change involved in any permit revision;
- (vi) The name, address, and telephone number of a person who interested persons may contact to review additional information including copies of the proposed permit, the application, all relevant supporting materials, including compliance documents as defined in paragraph (b)(5) of Rule 3000, and all other materials available to the Executive Officer that are relevant to the permit decision;
- (vii) A brief description of the public comment procedures provided; and,
- (viii) The time and place of any proposed permit hearing that may be held or a statement of the procedures to request a proposed permit hearing if one has not already been requested.

The notice will be published in the LA Daily News, sent to those on the Title V mailing list, and posted on AQMD's website.

RECOMMENDATION:

After completion of the EPA review period, a Permit to Construct/Permit to Operate can be issued for the engines, subject to the conditions listed in the following section.

CONDITIONS:

1. THE OPERATOR SHALL MAINTAIN THESE RECORDS FOR A MINIMUM OF THREE YEARS AND MAKE THEM AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1110.2, 1304]
2. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470
[RULE 431.2, RULE 1470]
3. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.



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[RULE 204]

4. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

[RULE 204]

5. THIS ENGINE SHALL NOT BE OPERATED UNLESS ITS EXHAUST IS VENTED TO THE DIESEL PARTICULATE FILTER SYSTEM WHICH IS IN FULL OPERATION AND WHICH IS IN GOOD OPERATING CONDITION AT ALL TIMES.

[RULE 1303-BACT]

6. THE OPERATOR SHALL NOT OPERATE THE DIESEL PARTICULATE FILTER SYSTEM WITHOUT AN OPERATIONAL DATA LOGGING AND ALARM SYSTEM.

[RULE 1303-BACT]

7. THE DATA LOGGING AND ALARM SYSTEM SHALL BE PROGRAMMED TO INTERFACE WITH THE ENGINE CONTROL SYSTEM TO AUTOMATICALLY SHUTDOWN THE ENGINE WHENEVER THE BACKPRESSURE OF THE DIESEL PARTICULATE FILTER SYSTEM EXCEEDS THE MAXIMUM BACKPRESSURE SETTING SPECIFIED BY THE FILTER MANUFACTURER.

[RULE 1303-BACT]

8. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING.

[RULE 1110.2, 1304]

9. THE OPERATION OF ENGINE BEYOND THE 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 1110.2, RULE 1304]

10. AN OPERATIONAL NON-RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.

[RULE 1110.2, RULE 1304]

11. THIS ENGINE SHALL NOT BE OPERATED IN IDLE MODE FOR MORE THAN 720 CONSECUTIVE MINUTES.



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[RULE 1303-BACT]

12. THE OPERATOR SHALL REGENERATE THE DIESEL PARTICULATE FILTER AFTER EVERY 24 COLD ENGINE START-UPS OR WHENEVER A "YELLOW" WARNING SIGNAL IS RECEIVED FROM THE ALARM SYSTEM, WHICHEVER OCCURS FIRST. IN ORDER TO ACHIEVE FILTER REGENERATION, THE OPERATOR SHALL RUN THE ENGINE UNTIL THE EXHAUST TEMPERATURE EXCEEDS 465 DEGREES FAHRENHEIT AND THE BACKPRESSURE MONITORING SYSTEM INDICATES A NORMAL BACKPRESSURE READING.

[RULE 1303-BACT]

13. THE TEMPERATURE OF THE ENGINE EXHAUST GAS AT THE INLET TO THE DIESEL PARTICULATE FILTER SYSTEM SHALL BE GREATER THAN OR EQUAL TO 465 DEGREES FAHRENHEIT, EXCEPT DURING COLD ENGINE START-UP, NOT TO EXCEED 10 MINUTES.

[RULE 1303-BACT]

14. THE DIESEL PARTICULATE FILTER'S FILTER MEDIA MAY BE REMOVED FOR CLEANING ONLY UNDER THE FOLLOWING CONDITIONS: 1) THE INTERNAL COMBUSTION ENGINE SHALL NOT BE OPERATED FOR MAINTENANCE AND TESTING OR ANY OTHER NON-EMERGENCY USE WHILE THE DIESEL PARTICULATE FILTER MEDIA IS REMOVED, AND 2) THE DIESEL PARTICULATE FILTER'S FILTER MEDIA SHALL BE RETURNED AND RE-INSTALLED WITHIN 10 WORKING DAYS FROM THE DATE OF REMOVAL. THE OWNER OR OPERATOR SHALL MAINTAIN RECORDS INDICATING THE DATE(S) THE DIESEL PARTICULATE FILTER'S FILTER MEDIA WAS REMOVED FOR CLEANING AND THE DATE(S) THE FILTER MEDIA WAS RE-INSTALLED. RECORDS SHALL BE RETAINED FOR A MINIMUM PERIOD OF 5 CALENDAR YEARS.

[RULE 1470]

15. 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 1304]

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

- A. THE TOTAL HOURS OF ENGINE OPERATION FOR THE PREVIOUS CALENDAR YEAR, AND
- B. THE TOTAL HOURS OF ENGINE OPERATION FOR MAINTENANCE AND TESTING FOR THE PREVIOUS CALENDAR YEAR.
- C. ENGINE OPERATION LOG(S) SHALL BE RETAINED ON SITE FOR A MINIMUM OF FIVE CALENDAR YEARS AND SHALL BE MADE



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AVAILABLE TO THE EXECUTIVE OFFICER OR REPRESENTATIVE
UPON REQUEST.
[RULE 1110.2, 1304]

17. THE OPERATOR SHALL KEEP A LOG OF ENGINE OPERATIONS DOCUMENTING THE TOTAL TIME THE ENGINE IS OPERATED EACH MONTH AND THE SPECIFIC REASON FOR OPERATION AS:
- A. EMERGENCY USE
 - B. MAINTENANCE AND TESTING
 - C. OTHER (BE SPECIFIC).
 - D. IN ADDITION, FOR EACH TIME THE ENGINE IS MANUALLY STARTED, THE LOG SHALL INCLUDE THE DATE OF ENGINE OPERATION, THE SPECIFIC REASON FOR OPERATION, AND THE TOTALIZING HOUR METER READING (IN HOURS AND TENTHS OF HOURS) AT THE BEGINNING AND THE END OF THE OPERATION.

THE OPERATOR SHALL MAINTAIN THESE RECORDS FOR A MINIMUM OF FIVE CALENDAR YEARS AND MAKE THEM AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1110.2, 1304]

Emissions and Requirements:

18. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
- PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
 - PM: RULE 1470



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Appendix A

Toxic Emission Calculations for Rule 212 Applicability

Data

Engine rating 2937 hp
Fuel Rate 138 gal/hr

The estimated toxic emissions from each engine are based on factors from CARB's database, CATEF. Maximum hourly emissions are based on fuel use rate of 138 gph. Maximum annual PTE emissions are based on 50 hours per year operation at full load.

Pollutant	Emission Factor	Hourly Emissions	Annual Emissions
	Lbs/mgal	Lbs/hr	Lbs/yr
Acetaldehyde	1.52E-01	2.10E-02	1.05E+00
Acrolein	3.16E-02	4.36E-03	2.18E-01
Benzene	3.30E-01	4.55E-02	2.28E+00
Butadiene, 1,3-	5.41E-03	7.47E-04	3.73E-02
Ethyl benzene	8.03E-03	1.11E-03	5.54E-02
Formaldehyde	2.23E+00	3.08E-01	1.54E+01
PAHs	4.70E-02	6.49E-03	3.24E-01
Napthalene	1.58E-01	2.18E-02	1.09E+00
Toluene	1.11E-01	1.53E-02	7.66E-01
Xylenes	4.44E-02	6.13E-03	3.06E-01
Total, lbs/yr			21.5
Total, tpy			0.011

On March 7, 2008, CARB declared exhaust from diesel engines as a carcinogen. Therefore, for purposes of determining the health risk associated with the toxic emissions from these engines, the rate of diesel particulate matter (dpm) emissions is used in the analysis. The engine's particulate matter emission rate is 0.01 g/bhp-hr, or about 0.06 lbs/hr (controlled), and the analysis is based on 50 hours per year operation.

A Tier 3 Analysis was performed. The following parameters were used in the analysis:

Emission Rate 0.0076 g/s
Stack diameter 12 inches (0.33 m)
Stack height 20 feet (6.7 m)
Stack flow 15,147 acfm
Stack temperature 762°F (679 K)
MET Data Compton
Maximum impact 0.4048 ug/m3 at 71 meters



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The cancer risk was determined to be 0.06 in a million, and the chronic hazard index was 3.83E-05 (see Tier 3 Screening Risk Assessment report in the file).

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L.A. COUNTY HARBOR UCLA MEDICAL CENTER**

PERMIT TO CONSTRUCT/OPERATE

**Permit No. DRAFT
A/N 517832**

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL 3516C-DITA, DIESEL FUELED, 16 CYLINDERS, TURBOCHARGED, AFTERCOOLED, RATED AT 2937 BHP, WITH A DIESEL PARTICULATE FILTER, JOHNSON MATTHEY, MODEL CRT, AND A DATA LOGGING AND ALARM SYSTEM, DRIVING AN EMERGENCY GENERATOR.

Conditions:

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[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
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[RULE 1110.2, 1304]
7. THE OPERATION OF ENGINE BEYOND THE 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

**FACILITY PERMIT TO OPERATE
L.A. COUNTY HARBOR UCLA MEDICAL CENTER**

C. ENGINE OPERATION LOG(S) 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 1110.2, 1304]

15. THE OPERATOR SHALL KEEP A LOG OF ENGINE OPERATIONS DOCUMENTING THE TOTAL TIME THE ENGINE IS OPERATED EACH MONTH AND THE SPECIFIC REASON FOR OPERATION AS:
- A. EMERGENCY USE
 - B. MAINTENANCE AND TESTING
 - C. OTHER (BE SPECIFIC).
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[RULE 1110.2, RULE 1304]

THE OPERATOR SHALL MAINTAIN THESE RECORDS FOR A MINIMUM OF FIVE CALENDAR YEARS AND MAKE THEM AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1110.2, 1304]

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[RULE 431.2, RULE 1470]

Emissions and Requirements:

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 - PM: RULE 1470

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TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1110.2, RULE 1304]

8. AN OPERATIONAL NON-RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1110.2, RULE 1304]
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10. THIS ENGINE SHALL NOT BE OPERATED IN IDLE MODE FOR MORE THAN 720 CONSECUTIVE MINUTES.
[RULE 1303-BACT]
11. THE OPERATOR SHALL REGENERATE THE DIESEL PARTICULATE FILTER AFTER EVERY 24 COLD ENGINE START-UPS OR WHENEVER A "YELLOW" WARNING SIGNAL IS RECEIVED FROM THE ALARM SYSTEM, WHICHEVER OCCURS FIRST. IN ORDER TO ACHIEVE FILTER REGENERATION, THE OPERATOR SHALL RUN THE ENGINE UNTIL THE EXHAUST TEMPERATURE EXCEEDS 465 DEGREES FAHRENHEIT AND THE BACKPRESSURE MONITORING SYSTEM INDICATES A NORMAL BACKPRESSURE READING.
[RULE 1303-BACT]
12. THE TEMPERATURE OF THE ENGINE EXHAUST GAS AT THE INLET TO THE DIESEL PARTICULATE FILTER SYSTEM SHALL BE GREATER THAN OR EQUAL TO 465 DEGREES FAHRENHEIT, EXCEPT DURING COLD ENGINE START-UP, NOT TO EXCEED 10 MINUTES.
[RULE 1303-BACT]
13. THE DIESEL PARTICULATE FILTER'S FILTER MEDIA MAY BE REMOVED FOR CLEANING ONLY UNDER THE FOLLOWING CONDITIONS: 1) THE INTERNAL COMBUSTION ENGINE SHALL NOT BE OPERATED FOR MAINTENANCE AND TESTING OR ANY OTHER NON-EMERGENCY USE WHILE THE DIESEL PARTICULATE FILTER MEDIA IS REMOVED, AND 2) THE DIESEL PARTICULATE FILTER'S FILTER MEDIA SHALL BE RETURNED AND RE-INSTALLED WITHIN 10 WORKING DAYS FROM THE DATE OF REMOVAL. THE OWNER OR OPERATOR SHALL MAINTAIN RECORDS INDICATING THE DATE(S) THE DIESEL PARTICULATE FILTER'S FILTER MEDIA WAS REMOVED FOR CLEANING AND THE DATE(S) THE FILTER MEDIA WAS RE-INSTALLED. RECORDS SHALL BE RETAINED FOR A MINIMUM PERIOD OF 5 CALENDAR YEARS.
[RULE 1470]
14. 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 1304]
15. ON OR BEFORE JANUARY 15TH OF EACH YEAR THE OPERATOR SHALL RECORD IN THE ENGINE OPERATING LOG:
 - A. THE TOTAL HOURS OF ENGINE OPERATION FOR THE PREVIOUS CALENDAR YEAR, AND

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- B. THE TOTAL HOURS OF ENGINE OPERATION FOR MAINTENANCE AND TESTING FOR THE PREVIOUS CALENDAR YEAR.
- C. ENGINE OPERATION LOG(S) 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 1110.2, 1304]

16. THE OPERATOR SHALL KEEP A LOG OF ENGINE OPERATIONS DOCUMENTING THE TOTAL TIME THE ENGINE IS OPERATED EACH MONTH AND THE SPECIFIC REASON FOR OPERATION AS:
- A. EMERGENCY USE
 - B. MAINTENANCE AND TESTING
 - C. OTHER (BE SPECIFIC).
 - D. IN ADDITION, FOR EACH TIME THE ENGINE IS MANUALLY STARTED, THE LOG SHALL INCLUDE THE DATE OF ENGINE OPERATION, THE SPECIFIC REASON FOR OPERATION, AND THE TOTALIZING HOUR METER READING (IN HOURS AND TENTHS OF HOURS) AT THE BEGINNING AND THE END OF THE OPERATION.
[RULE 1110.2, RULE 1304]

THE OPERATOR SHALL MAINTAIN THESE RECORDS FOR A MINIMUM OF FIVE CALENDAR YEARS AND MAKE THEM AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1110.2, 1304]

17. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470
[RULE 431.2, RULE 1470]

Emissions and Requirements:

18. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
- PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
 - PM: RULE 1470

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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 1110.2, RULE 1304]

8. AN OPERATIONAL NON-RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1110.2, RULE 1304]
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 1304]
10. THIS ENGINE SHALL NOT BE OPERATED IN IDLE MODE FOR MORE THAN 720 CONSECUTIVE MINUTES.
[RULE 1303-BACT]
11. THE OPERATOR SHALL REGENERATE THE DIESEL PARTICULATE FILTER AFTER EVERY 24 COLD ENGINE START-UPS OR WHENEVER A "YELLOW" WARNING SIGNAL IS RECEIVED FROM THE ALARM SYSTEM, WHICHEVER OCCURS FIRST. IN ORDER TO ACHIEVE FILTER REGENERATION, THE OPERATOR SHALL RUN THE ENGINE UNTIL THE EXHAUST TEMPERATURE EXCEEDS 465 DEGREES FAHRENHEIT AND THE BACKPRESSURE MONITORING SYSTEM INDICATES A NORMAL BACKPRESSURE READING.
[RULE 1303-BACT]
12. THE TEMPERATURE OF THE ENGINE EXHAUST GAS AT THE INLET TO THE DIESEL PARTICULATE FILTER SYSTEM SHALL BE GREATER THAN OR EQUAL TO 465 DEGREES FAHRENHEIT, EXCEPT DURING COLD ENGINE START-UP, NOT TO EXCEED 10 MINUTES.
[RULE 1303-BACT]
13. THE DIESEL PARTICULATE FILTER'S FILTER MEDIA MAY BE REMOVED FOR CLEANING ONLY UNDER THE FOLLOWING CONDITIONS: 1) THE INTERNAL COMBUSTION ENGINE SHALL NOT BE OPERATED FOR MAINTENANCE AND TESTING OR ANY OTHER NON-EMERGENCY USE WHILE THE DIESEL PARTICULATE FILTER MEDIA IS REMOVED, AND 2) THE DIESEL PARTICULATE FILTER'S FILTER MEDIA SHALL BE RETURNED AND RE-INSTALLED WITHIN 10 WORKING DAYS FROM THE DATE OF REMOVAL. THE OWNER OR OPERATOR SHALL MAINTAIN RECORDS INDICATING THE DATE(S) THE DIESEL PARTICULATE FILTER'S FILTER MEDIA WAS REMOVED FOR CLEANING AND THE DATE(S) THE FILTER MEDIA WAS RE-INSTALLED. RECORDS SHALL BE RETAINED FOR A MINIMUM PERIOD OF 5 CALENDAR YEARS.
[RULE 1470]
14. ON OR BEFORE JANUARY 15TH OF EACH YEAR THE OPERATOR SHALL RECORD IN THE ENGINE OPERATING LOG:
 - A. THE TOTAL HOURS OF ENGINE OPERATION FOR THE PREVIOUS CALENDAR YEAR, AND
 - B. THE TOTAL HOURS OF ENGINE OPERATION FOR MAINTENANCE AND TESTING FOR THE PREVIOUS CALENDAR YEAR.

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PERMIT TO CONSTRUCT/OPERATE

Permit No. DRAFT
A/N 517831

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL 3516C-DITA, DIESEL FUELED, 16 CYLINDERS, TURBOCHARGED, AFTERCOOLED, RATED AT 2937 BHP, WITH A DIESEL PARTICULATE FILTER, JOHNSON MATTHEY, MODEL CRT, AND A DATA LOGGING AND ALARM SYSTEM, DRIVING AN EMERGENCY GENERATOR.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE 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 BE OPERATED UNLESS ITS EXHAUST IS VENTED TO THE DIESEL PARTICULATE FILTER SYSTEM WHICH IS IN FULL OPERATION AND WHICH IS IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 1303-BACT]
4. THE OPERATOR SHALL NOT OPERATE THE DIESEL PARTICULATE FILTER SYSTEM WITHOUT AN OPERATIONAL DATA LOGGING AND ALARM SYSTEM.
[RULE 1303-BACT]
5. THE DATA LOGGING AND ALARM SYSTEM SHALL BE PROGRAMMED TO INTERFACE WITH THE ENGINE CONTROL SYSTEM TO AUTOMATICALLY SHUTDOWN THE ENGINE WHENEVER THE BACKPRESSURE OF THE DIESEL PARTICULATE FILTER SYSTEM EXCEEDS THE MAXIMUM BACKPRESSURE SETTING SPECIFIED BY THE FILTER MANUFACTURER.
[RULE 1303-BACT]
6. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING.
[RULE 1110.2, 1304]
7. THE OPERATION OF ENGINE BEYOND THE 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