



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178

(909) 396-2000 • www.aqmd.gov

June 9, 2009

Mr. Gerardo Rios – via email (R9AirPermits_sc@epa.gov)

USEPA Region IX, Mail Stop AIR-3

75 Hawthorne

San Francisco, CA 94105

SUBJECT: Loma Linda University, ID#800234
Title V de minimis significant revision, Non-RECLAIM, Proposed Installation of
Two (2) Crematories and Two (2) Emergency Engines

Dear Mr. Rios:

The South Coast Air Quality Management District (AQMD) has received and reviewed a de minimis significant Title V revision application from Loma Linda University, located at 25027 Mound Street, Loma Linda, CA 92354. The permit revision involves the installation of two (2) crematories and two (2) emergency diesel engines driving electrical generators.

The AQMD has evaluated these applications and made a preliminary determination that the equipment will be operated in compliance with all of the applicable requirements of our rules and regulations.

The AQMD is required under Rule 3005(e) to provide a copy of the proposed permit to the EPA Administrator for a 45-day review. As such, a copy of the proposed revision to the existing Title V permit is attached along with our engineering analysis for your review.

If you wish to provide comments or have any questions regarding this project, please contact Mr. Marcel Saulis at (909) 396-3093/ msaulis@aqmd.gov.

Sincerely,

A handwritten signature in black ink that reads "Michael D. Mills".

Michael D. Mills, P.E.

Senior Manager

General Commercial & Energy Team

cc: Henry Cairus, LLU

Enclosures: Proposed Section D of Title V Permit
Preliminary Engineering Analysis



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June 9, 2009

Mr. Henry Cairus
Loam Linda University
25027 Mound Street
Loma Linda, CA 92354

Subject: Emergency Internal Combustion Engine
A/N: 494678

Dear Mr. Cairus:

The South Coast Air Quality Management District (AQMD) has completed the evaluation of your application for a Permit to Construct/Operate an Emergency Internal Combustion Engine to be located at 10615 Anderson Street. According to AQMD Rule 212(c)(1), a 30-day public notice period must be completed prior to issuance of the Permit to Construct/Operate since the equipment will be located within 1000 feet from the outer boundary of a school. The public notice must be distributed to the parents of children attending Loma Linda Academy, 10656 Anderson Street., Loma Linda, CA 92354 and any other school within 1/4 mile of the property line of your facility, and to each address within a 1000-foot radius of the property line of your facility. The notice has been prepared in English and Spanish to meet the needs of the area.

Enclosed is the public notice which you are required to distribute per AQMD Rule 212(d) to the above described addresses. **PRIOR TO COPYING AND DISTRIBUTING THE NOTICE, PLEASE FILL IN THE ACTUAL DATE THAT THE NOTICE WILL BE DISTRIBUTED AT THE BOTTOM OF THE NOTICE AND SEND A DATED COPY TO THE AQMD.** Distribution of the enclosed notice should be completed by June 23, 2009.

Written verification referencing application number 494678 and proof of mailing should be submitted to the AQMD by July 7, 2009. Proof of mailing shall include post office receipts, mail service receipts, distribution service invoices, or other methods approved by the AQMD. The document should describe boundaries of notification and/or addresses included in the mailing. All correspondence regarding this notice must be forwarded to the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, CA 91765-4178, to the attention of Mr. Francisco Escobar.

The AQMD files pertaining to your above described equipment will be available for public review at the AQMD Diamond Bar office during the public notice period -- Tuesday through Friday between the hours of 8:00 a.m. and 4:30 p.m. Should you have any questions, please call Mr. Marcel Saulis at (909) 396-3093.

Sincerely,

A handwritten signature in cursive script that reads "Michael D. Mills".

Michael D. Mills
Senior Manager
Engineering & Compliance Division

MM:ms
Enclosure
Certified Mail/Return Receipt Requested



South Coast Air Quality Management District

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NOTICE OF INTENT TO ISSUE A "PERMIT TO CONSTRUCT/OPERATE" PURSUANT TO RULE 212

This notice is to inform you that the South Coast Air Quality Management District (AQMD) has received an application for a permit to construct/operate an emergency engine at a location in your neighborhood. The AQMD is the air pollution control agency for all of Orange County and portions of Los Angeles, Riverside and San Bernardino Counties. Anyone wishing to, install, operate or modify equipment that could be a source of air pollution within this region must first obtain a permit from the AQMD. Rule 212 requires the applicant for certain projects to distribute a public notice prepared by the AQMD prior to the issuance of a permit. This notice is being distributed because the project will be located within 1,000 feet of Loma Linda Academy, located at 10656 Anderson St., Loma Linda, CA.

The AQMD has evaluated the permit application for the following equipment and determined that the equipment will meet all applicable air quality requirements of our Rules and Regulations.

APPLICANT: LOMA LINDA UNIVERSITY
APPLICATION NUMBER: 494678
LOCATION: 10615 ANDERSON STREET
LOMA LINDA, CA 92354
PROJECT DESCRIPTION: INTERNAL COMBUSTION ENGINE DRIVING AN EMERGENCY ELECTRICAL GENERATOR OPERATING LESS THAN 200 HOURS IN ANY ONE YEAR.

Loma Linda University operates an engine. The engine drives an electrical generator that supplies power in case of an electrical emergency. The engine is equipped with a diesel particulate filter to reduce Particulate Matter emissions from the engine exhaust. The engine will use the best available control technology for controlling air pollution. The following are the 30-day average emissions from each contaminant:

Contaminant (lbs/day)	CO	NOx	PM10	ROG
	0.23	1.23	0.00	0.04

Generally, the amount will be less as most emergency generator engines do not operate at their maximum potential. The engine operation will emit small quantities of some toxic compounds. The AQMD has evaluated the long term (chronic) health impacts associated with the maximum potential emissions. Using worst case conditions, our evaluation shows that the chronic hazard index is 6.60×10^{-4} . According to the state health experts, a hazard index of one or less means that the surrounding community including the most sensitive individuals such as very young children and the elderly will not experience any adverse health impacts due to the toxic nature of these emissions. In addition, the long term cancer risk from these emissions is 1.05×10^{-6} – (Residential Receptor) and 8.64×10^{-7} – (Commercial Receptor).

The air quality analysis of this project is available for public review at the AQMD's headquarters in Diamond Bar. A copy of the draft permit to operate can be viewed at www.aqmd.gov/webappl/PublicNotices/Search.aspx by entering the company's name. Information regarding the facility owner's compliance history submitted to the AQMD pursuant to California Health & Safety Code Section 42336, or otherwise known to AQMD, based on credible information, is also available from the AQMD for public review. Anyone wishing to comment on the proposed issuance of this permit should submit their comments in writing within 30 days of the distribution date shown below. If you are concerned primarily about zoning decisions and the process by which this facility has been sited at this location, you should contact your local city or county planning department. Please submit comments related to air quality to Mr. Marcel Saulis, Air Quality Engineer, Engineering and Compliance, South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California 91765-4178. For additional information, please call Mr. Marcel Saulis at (909) 396-3093. For your general information, anyone experiencing air quality problems such as dust or odor can telephone in a complaint to the AQMD by calling 1-800-CUT-SMOG (1-800-288-7664).

Distribution Date: _____



South Coast Air Quality Management District

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AVISO DE INTENTO PARA OTORGAR UN "PERMISO PARA CONSTRUIR/OPERAR" DE ACUERDO CON LA REGLA 212

Este aviso es para informarle que el Distrito Administrativo de la Calidad del Aire de la Costa Sur (AQMD, siglas en inglés) ha recibido una aplicación para un permiso para construir/operar un motor de combustión interno de emergencia localizado en su vecindad. El AQMD es la agencia encargada de controlar la calidad del aire de todo el condado de Orange, y partes de los condados de Los Ángeles, Riverside y San Bernardino. Cualquier persona deseando instalar, operar o modificar equipo que pueda causar una fuente de contaminación atmosférica dentro de esta región, tiene primero que obtener un permiso del AQMD. La Regla 212 requiere que el solicitante para ciertos proyectos, tal como este, distribuya un aviso público preparado por el AQMD antes de que se otorgue un permiso. Esta notificación se requiere porque el proyecto propuesto está localizado dentro de 1,000 pies de la escuela Loma Linda Academy, localizada en el 10656 Anderson St., Loma Linda, CA.

El AQMD ha evaluado la aplicación del permiso para el equipo siguiente y ha determinado que el equipo cumplirá con todas las Reglas y Regulaciones aplicables del AQMD.

SOLICITANTE: LOMA LINDA UNIVERSITY

NÚMERO DE APLICACIÓN: 494678

DIRECCIÓN: 10615 ANDERSON STREET
LOMA LINDA, CA 92354

DESCRIPCIÓN DEL PROYECTO: MOTOR DE COMBUSTIÓN INTERNO OPERANDO PARA PROVEER ENERGÍA A UN GENERADOR ELÉCTRICO DE EMERGENCIAS OPERANDO MENOS DE 200 HORAS EN CUALQUIER AÑO.

Loma Linda University está operando este motor de combustión interno. Este motor opera para proveer energía a un generador eléctrico en caso de una emergencia eléctrica. La máquina está equipada con un filtro de materia particulada para diesel para reducir emisiones de materia particulada de los gases del escape del motor. La máquina usará la mejor tecnología de control disponible para controlar la contaminación de aire. Lo siguiente son las emisiones de promedio de 30-días máximas de cada contaminante:

Contaminante (libras/día)	CO*	NO _x *	PM ₁₀ *	ROG*
	0.23	1.23	0.00	0.04

* *Notas: Monóxido de Carbono – (CO, siglas en inglés); Óxidos de Nitrógeno – (NO_x, siglas en inglés); Materia de Partículas que tienen un diámetro menos de 10 micras – (PM₁₀, siglas en inglés); Gases Orgánicos Reactivos – (ROG, siglas en inglés).*

Generalmente, la cantidad será menor cuando la mayoría de los motores de emergencia no funcionan en su potencial máximo. La operación de la máquina emitirá pequeñas cantidades de algunos compuestos tóxicos. El AQMD ha evaluado los impactos de salud a largo plazo (crónico) con las emisiones potenciales máximas. Usando las condiciones de caso peores, nuestra evaluación muestra que los índices de riesgo crónicos son 6.60×10^{-4} . Según los expertos de salud estatales, un índice de riesgo de uno o menos indica que la comunidad circundante, incluso los individuales más sensibles como niños pequeños y la gente mayor, no experimentará ningún impacto adverso debido a la naturaleza tóxica de estas emisiones. En adición, el riesgo de cáncer a largo plazo de estas emisiones es 1.05×10^{-6} – (Receptor Residencia) y 8.64×10^{-7} – (Receptor Comercial).

El análisis de la calidad del aire de este proyecto estará disponible al público para repaso en la oficina principal del AQMD en Diamond Bar. Una copia del permiso propuesto para construir y operar se puede examinar visitando la página de Internet del AQMD al www.aqmd.gov/webappl/PublicNotices/Search.aspx sometiendo el nombre de la compañía. Información acerca del historial de cumplimiento del dueño de la compañía sometida al AQMD de acuerdo con referencia a la Sección 42336 del Código de Salud y Seguridad de California, o sabido de otra manera al AQMD, es basada en información creíble, y también está disponible en el AQMD para repaso público. Cualquier persona deseando comentar sobre este permiso tiene que someter los comentarios por escrito dentro de 30 días de la fecha de distribución indicada abajo. Si tiene preguntas sobre decisiones de zonificación y el proceso por el cual esta compañía está situada en esta localidad, tiene que llamar a su ciudad local o al departamento de planificación del condado.

Favor de someter comentarios pertinentes a Mr. Marcel Saulis, Air Quality Engineer, Engineering and Compliance, South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California 91765-4178. Para información adicional, llame al Ingeniero Marcel Saulis al (909) 396-3093. Para su información general, cualquiera persona experimentando problemas de la calidad del aire como polvo u olores pueden llamar para registrar una queja al AQMD al 1-800-CUT-SMOG (1-800-288-7664).

Fecha de Distribución: _____

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

Facility Equipment and Requirements (Section D)

This section consists of a table listing all permitted equipment at the facility, facility wide requirements, all individual Permits to Construct and Permits to Operate issued to various equipment at the facility, and Rule 219-exempt equipment subject to source-specific requirements. Each permit and Rule 219-exempt equipment will list operating conditions including periodic monitoring requirements, and applicable emission limits and requirements that the equipment is subject to. Also included is the rule origin and authority of each emission limit and permit condition.

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

PERMITTED EQUIPMENT LIST

THE FOLLOWING IS A LIST OF ALL PERMITS TO CONSTRUCT AND PERMITS TO OPERATE AT THIS FACILITY:

Application number	Permit to Operate number	Equipment description
10158B	10158B	INCIN M-C RETORT NON-HAZ 500-749 LB/HR
139146	D03504	INCIN PATHOLOGICAL 51-100 LB/HR
144646	M56895	I C E (51-500 HP) EM ELEC GEN-DIESEL
176594	D09075	I C E (51-500 HP) EM ELEC GEN-DIESEL
274517	D79812	ETHYLENE OXIDE STERILIZATION HOSPITAL
274518	D80060	ETHYLENE OXIDE STERILIZATION HOSPITAL
274520	D79813	ETHYLENE OXIDE STERILIZATION CTL (HOSP)
274769	D71177	I C E (51-500 HP) EM FLOOD CTL-DIESEL
277677	D71638	I C E (>500 HP) EM ELEC GEN DIESEL
277678	D71639	I C E (>500 HP) EM ELEC GEN DIESEL
334804	F10748	I C E (>500 HP) EM ELEC GEN DIESEL
334805	F10749	I C E (>500 HP) EM ELEC GEN DIESEL
435937	F73156	I C E (51-500 HP) EM ELEC GEN-DIESEL
495540	N24724	SERV STAT STORAGE & DISPENSING GASOLINE
456510	F81875	I C E (51-500 HP) EM ELEC GEN DIESEL
459899	F95797	BOILER (>20-50 MMBTU/HR) COMB GAS-DISTIL
480391	F99255	TURBINE ENGINE ≤ 50 MW NAT GAS - DIST
480393	F99256	TURBINE ENGINE ≤ 50 MW NAT GAS - DIST
478849	TBD	CREMATORY
480890	TBD	CREMATORY
494678	TBD	I C E (>500 HP) EM ELEC GEN DIESEL
494679	TBD	I C E (51-500 HP) EM ELEC GEN-DIESEL

NOTE: EQUIPMENT LISTED ABOVE THAT HAVE NO CORRESPONDING PERMITS TO OPERATE NUMBER ARE ISSUED PERMITS TO CONSTRUCT. THE ISSUANCE OR DENIAL OF THEIR PERMITS TO OPERATE IS SUBJECT TO ENGINEERING FINAL REVIEW. ANY OTHER APPLICATIONS THAT ARE STILL BEING PROCESSED AND HAVE NOT BEEN ISSUED PERMITS TO CONSTRUCT OR PERMITS TO OPERATE WILL NOT BE FOUND IN THIS TITLE V PERMIT.

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FACILITY WIDE CONDITION(S)

Condition(s):

1. EXCEPT FOR OPEN ABRASIVE BLASTING OPERATIONS, THE OPERATOR SHALL NOT DISCHARGE INTO THE ATMOSPHERE FROM ANY SINGLE SOURCE OF EMISSIONS WHATSOEVER ANY AIR CONTAMINANT FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR WHICH IS:
 - A. AS DARK OR DARKER IN SHADE AS THAT DESIGNATED NO. 1 ON THE RINGELMANN CHART, AS PUBLISHED BY THE UNITED STATES BUREAU OF MINES; OR
 - B. OF SUCH OPACITY AS TO OBSCURE AN OBSERVER'S VIEW TO A DEGREE EQUAL TO OR GREATER THAN DOES SMOKE DESCRIBED IN SUBPARAGRAPH (A) OF THIS CONDITION.
[RULE 401]

2. 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, RULE 1470]

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

PERMIT TO OPERATE

Permit No. 10158B
A/N 10158B

Equipment Description:

CREMATORY, METTLER CO., MULTIPLE CHAMBER RETORT TYPE, MODEL NO. 98F2-C, WITH A 1,500,000 BTU/HR NATURAL GAS-FIRED CREMATION BURNER AND 12 SQ. FT. GRATE AREA.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS CREMATORY SHALL BE OPERATED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.
[RULE 204]
4. THIS EQUIPMENT SHALL BE USED ONLY TO CREMATE HUMAN ANATOMICAL PARTS OR WHOLE BODIES.
[RULE 1303 (b)(2)-OFFSET]
5. THE OPERATOR SHALL KEEP ADEQUATE RECORDS TO VERIFY THE MONTHLY NUMBER OF CORPSES CREMATED IN A MANNER APPROVED BY THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. SUCH RECORDS SHALL BE RETAINED FOR A PERIOD OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1303 (b)(2)-OFFSET]

Periodic Monitoring:

6. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON A MONTHLY BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE MONTHLY PERIOD. THE ROUTINE MONTHLY INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE-HOUR, THE OPERATOR SHALL EITHER:
 - A. VERIFY AND CERTIFY WITHIN 24 HOURS THAT THE EQUIPMENT CAUSING THE EMISSION AND ANY ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT ARE OPERATING NORMALLY ACCORDING TO THEIR DESIGN AND STANDARD PROCEDURES AND UNDER

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

- THE SAME CONDITIONS UNDER WHICH COMPLIANCE WAS ACHIEVED IN THE PAST;
- B. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT; OR
 - C. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- A. STACK OR EMISSION POINT IDENTIFICATION;
- B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
- C. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
- D. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.
[RULE 3004 (a)(4)]

Emissions And Requirements:

- 7. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
 - PM: 0.1 GR/SCF RULE 473
 - CO: 2000 PPMV, RULE 407
 - SOX: 500 PPMV, RULE 407
 - PM: 0.1 GR/SCF, RULE 409
 - PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

PERMIT TO OPERATE

Permit No. D03504
A/N 139146

Equipment Description:

INCINERATOR, PATHOLOGICAL AND HOSPITAL WASTES, MULTIPLE CHAMBER, ECO LAIRE E.C.P. INC., MODEL 100 PWI, 100 POUNDS PER HOUR CAPACITY, 6' DIA X 8' H (PRIMARY CHAMBER), 4'-6" DIA X 8' L, SECONDARY CHAMBER WITH TWO 800,000 BTU/HR PRIMARY GAS BURNERS WITH A 1.3 HP UNDERFIRE BLOWER AND A 1,200,000 BTU PER HOUR SECONDARY GAS BURNER WITH A 3 HP BLOWER.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE TOTAL QUANTITY OF MATERIAL CHARGED TO THIS INCINERATOR SHALL NOT EXCEED 100 POUNDS PER HOUR OR 800 POUNDS PER DAY.
[RULE 1303(b)((2)-OFFSET]
4. A TEMPERATURE OF NOT LESS THAN 2000 DEGREES F SHALL BE MAINTAINED IN THE AFTERBURNER CHAMBER WHEN THE INCINERATOR IS IN OPERATION.
[RULE 1406]
5. COMPLETE RECORDS OF THE AMOUNT OF MATERIAL PROCESSED PER DAY IN THIS INCINERATOR SHALL BE MAINTAINED IN A FORM APPROVED IN WRITING BY THE EXECUTIVE OFFICER. SUCH RECORDS SHALL BE MAINTAINED FOR A PERIOD OF NOT LESS THAN FIVE YEARS AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
[RULE 1406]
6. THE CHARGING DOOR SHALL REMAIN CLOSED EXCEPT DURING CHARGING.
[RULE 1406]
7. THE PRIMARY GAS BURNER SHALL AUTOMATICALLY SHUT OFF WHEN THE CHARGING DOOR IS OPENED.
[RULE 1406]
8. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES AND OPERATED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.
[RULE 1406]

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9. THIS EQUIPMENT SHALL COMPLY WITH RULE 1406.
[RULE 1406]

Periodic Monitoring:

10. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON A MONTHLY BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE MONTHLY PERIOD. THE ROUTINE MONTHLY INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE-HOUR, THE OPERATOR SHALL EITHER:
- A. VERIFY AND CERTIFY WITHIN 24 HOURS THAT THE EQUIPMENT CAUSING THE EMISSION AND ANY ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT ARE OPERATING NORMALLY ACCORDING TO THEIR DESIGN AND STANDARD PROCEDURES AND UNDER THE SAME CONDITIONS UNDER WHICH COMPLIANCE WAS ACHIEVED IN THE PAST;
 - B. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT; OR
 - C. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- A. STACK OR EMISSION POINT IDENTIFICATION;
- B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
- C. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
- D. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.
[RULE 3004 (a)(4)]

Emissions And Requirements:

11. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
- PM: 0.1 GR/SCF RULE 473
 - CO: 2000 PPMV, RULE 407
 - SOX: 500 PPMV, RULE 407
 - PM: 0.1 GR/SCF, RULE 409
 - PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

PERMIT TO OPERATE

Permit No. M56895
A/N 144646

Equipment Description:

EMERGENCY ELECTRIC POWER GENERATION SYSTEM CONSISTING OF:

1. DIESEL ENGINE, CATERPILLAR 3516-STD, S/N 2520076, 2520 HP, WITH TURBOCHARGER, AFTERCOOLED SYSTEM, AND RETARD IGNITION.
2. ELECTRIC GENERATOR, CATERPILLAR 3516, 1759 K.W. STANDBY RATING.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN A YEAR WHICH INCLUDES NO MORE THAN 30 HOURS FOR PERFORMANCE AND MAINTENANCE TESTING.
[RULE 1304(a)-MODELING AND OFFSET; RULE 1110.2, RULE 1470]
4. OPERATION BEYOND THE 30 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 UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
5. AN ENGINE OPERATING LOG SHALL BE KEPT AND MAINTAINED ON FILE TO RECORD WHEN THIS ENGINE IS STARTED MANUALLY. THE LOG SHALL LIST THE DATE OF OPERATION, THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION, AND THE REASON FOR OPERATION OF THIS ENGINE. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION (BOTH MANUAL AND AUTOMATIC) FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED ANYTIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

6. THIS ENGINE SHALL COMPLY WITH RULE 1470.
[RULE 1470]

Periodic Monitoring:

7. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

PERMIT TO OPERATE

Permit No. D09075
A/N 176594

Equipment Description:

INTERNAL COMBUSTION ENGINE, GM DIESEL, DIESEL FUELED, EMERGENCY ELECTRICAL GENERATION, MODEL NO. 7163-7000 SERIAL NO. 16VA1331, 16 CYLINDERS, TWO CYCLE, NATURALLY ASPIRATED, 466 BHP, WITH ONE EXHAUST.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE IGNITION TIMING OF THIS ENGINE MUST BE INSPECTED, ADJUSTED, AND CERTIFIED, AT A MINIMUM, ONCE EVERY THREE YEARS OF OPERATION. INSPECTIONS, ADJUSTMENTS, AND CERTIFICATIONS MUST BE PERFORMED BY A QUALIFIED MECHANIC AND ACCORDING TO THE ENGINE MANUFACTURER'S PROCEDURES.
[RULE 1303(a)(1)-BACT]
4. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN A YEAR WHICH INCLUDES NO MORE THAN 30 HOURS FOR PERFORMANCE AND MAINTENANCE TESTING.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
5. OPERATION BEYOND THE 30 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 UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
6. AN ENGINE OPERATING LOG SHALL BE KEPT AND MAINTAINED ON FILE TO RECORD WHEN THIS ENGINE IS STARTED MANUALLY. THE LOG SHALL LIST THE DATE OF OPERATION, THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION, AND THE REASON FOR OPERATION OF THIS ENGINE. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE

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CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION (BOTH MANUAL AND AUTOMATIC) FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED ANYTIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]

7. THIS ENGINE SHALL COMPLY WITH RULE 1470.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

PERMIT TO OPERATE

Permit No. D79812
A/N 274517

Equipment Description:

ETHYLENE OXIDE GAS STERILIZER, JOSLYN, MODEL 1008-0006, 2'-0" W X 3'-0" L X 5'-0" H (INTERNAL DIMENSIONS), STEAM HEATED, WITH A 1 ½ HP VACUUM PUMP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE MAXIMUM AMOUNT OF STERILIZING LOADS PROCESSED IN THIS EQUIPMENT SHALL NOT EXCEED 2 LOADS IN ANY DAY OR 45 LOADS IN ANY MONTH.
[RULE 1405]
4. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS THE STERILIZER IS VENTED TO AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND HAS BEEN ISSUED A PERMIT TO OPERATE BY THE EXECUTIVE OFFICER.
[RULE 1405]
5. THIS EQUIPMENT SHALL BE LEAK CHECKED PER DISTRICT RULE 1405 (d) (5).
[RULE 1405]
6. RECORDS SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITION NOS. 3 AND 5. THESE RECORDS SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1405]
7. THIS EQUIPMENT SHALL COMPLY WITH RULE 1405.
[RULE 1405]

Emissions And Requirements:

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

ETHYLENE OXIDE: RULE 1405(d), SEE RULE FOR EMISSION LIMIT REQUIREMENTS

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

PERMIT TO OPERATE

Permit No. D80060
A/N 274518

Equipment Description:

ETHYLENE OXIDE GAS STERILIZER, JOSLYN, MODEL 2460-0002, 2'-0" W X 5'-0" L X 3'-0" H (INTERNAL DIMENSIONS), STEAM HEATED, WITH A 1 ½ HP VACUUM PUMP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE MAXIMUM AMOUNT OF STERILIZING LOADS PROCESSED IN THIS EQUIPMENT SHALL NOT EXCEED 2 LOADS IN ANY DAY OR 45 LOADS IN ANY MONTH.
[RULE 1405]
4. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS THE STERILIZER IS VENTED TO AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND HAS BEEN ISSUED A PERMIT TO OPERATE BY THE EXECUTIVE OFFICER.
[RULE 1405]
5. THIS EQUIPMENT SHALL BE LEAK CHECKED PER DISTRICT RULE 1405 (d) (5).
[RULE 1405]
6. RECORDS SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITION NOS. 3 AND 5. THESE RECORDS SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1405]
7. THIS EQUIPMENT SHALL COMPLY WITH RULE 1405.
[RULE 1405]

Emissions And Requirements:

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

ETHYLENE OXIDE: RULE 1405(d), SEE RULE FOR EMISSION LIMIT REQUIREMENTS

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Permit No. D79813
A/N 274520

Equipment Description:

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. ETO RECOVERY UNIT, JOSLYN, MODEL 1002-00015, 4'-0" W X 1'-10" L X 4'-5" H.
2. TANK STORAGE CABINET, 3'-0" W X 1'-7" L X 4'-8" H.
3. ACID SCRUBBER, 2'-0" W X 2'-0" L X 3'-0" H.
4. EXHAUST SYSTEM 1/6 HP, VENTING TWO STERILIZERS.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE OPERATOR SHALL CONDUCT ANNUAL SOURCE TESTS ON THIS EQUIPMENT PER RULE 1405(d)(6).
[RULE 1405]
4. RECORDS SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITION NO. 3. THESE RECORDS SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1405]
5. THIS EQUIPMENT SHALL COMPLY WITH RULE 1405.
[RULE 1405]

Emissions And Requirements:

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

ETHYLENE OXIDE: RULE 1405(d), SEE RULE FOR EMISSION LIMIT REQUIREMENTS

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PERMIT TO OPERATE

Permit No. D71177
A/N 274769

Equipment Description:

INTERNAL COMBUSTION ENGINE, VM AGIP, MODEL NO. 1310, SERIAL NO. 101184, FOUR CYCLE, TEN CYLINDERS, DIESEL FIRED, 200 HP, DRIVING AN EMERGENCY WELL PUMP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN A YEAR WHICH INCLUDES NO MORE THAN 30 HOURS FOR PERFORMANCE AND MAINTENANCE TESTING.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
4. OPERATION BEYOND THE 30 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 UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
5. AN ENGINE OPERATING LOG SHALL BE KEPT AND MAINTAINED ON FILE TO RECORD WHEN THIS ENGINE IS STARTED MANUALLY. THE LOG SHALL LIST THE DATE OF OPERATION, THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION, AND THE REASON FOR OPERATION OF THIS ENGINE. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION (BOTH MANUAL AND AUTOMATIC) FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED ANYTIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]
6. THIS ENGINE SHALL COMPLY WITH RULE 1470.
[RULE 1470]

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7. THIS ENGINE SHALL BE REPLACED OR RETROFITTED TO COMPLY WITH RULE 1470 REQUIREMENTS FOR EXISTING ENGINES LOCATED WITHIN 100 METERS OF SCHOOLS OR SCHOOL GROUNDS NO LATER THAN JANUARY 1, 2009.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

PERMIT TO OPERATE

Permit No. D71638
A/N 277677

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. 3508, SERIAL NO. 23Z01443, DIESEL FUELED, EMERGENCY, ELECTRICAL GENERATOR DRIVER, TURBOCHARGED, AFTERCOOLED, 8 CYLINDERS, 1344 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN A YEAR WHICH INCLUDES NO MORE THAN 30 HOURS FOR PERFORMANCE AND MAINTENANCE TESTING.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
4. OPERATION BEYOND THE 30 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 UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
5. AN ENGINE OPERATING LOG SHALL BE KEPT AND MAINTAINED ON FILE TO RECORD WHEN THIS ENGINE IS STARTED MANUALLY. THE LOG SHALL LIST THE DATE OF OPERATION, THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION, AND THE REASON FOR OPERATION OF THIS ENGINE. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION (BOTH MANUAL AND AUTOMATIC) FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED ANYTIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]
6. THIS ENGINE SHALL COMPLY WITH RULE 1470.
[RULE 1470]

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

7. THE FUEL INJECTION TIMING OF THIS ENGINE SHALL BE SET AND MAINTAINED AT 4 DEGREES RETARDED RELATIVE TO STANDARD TIMING.
[RULE 1303(a)(1)-BACT]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

PERMIT TO OPERATE

Permit No. D71639
A/N 277678

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. 3508, SERIAL NO. 23Z01442, DIESEL FUELED, EMERGENCY, ELECTRICAL GENERATOR DRIVER, TURBOCHARGED, AFTERCOOLED, 8 CYLINDERS, 1344 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN A YEAR WHICH INCLUDES NO MORE THAN 30 HOURS FOR PERFORMANCE AND MAINTENANCE TESTING.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
4. OPERATION BEYOND THE 30 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 UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
5. AN ENGINE OPERATING LOG SHALL BE KEPT AND MAINTAINED ON FILE TO RECORD WHEN THIS ENGINE IS STARTED MANUALLY. THE LOG SHALL LIST THE DATE OF OPERATION, THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION, AND THE REASON FOR OPERATION OF THIS ENGINE. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION (BOTH MANUAL AND AUTOMATIC) FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED ANYTIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]
6. THIS ENGINE SHALL COMPLY WITH RULE 1470.
[RULE 1470]

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

7. THE FUEL INJECTION TIMING OF THIS ENGINE SHALL BE SET AND MAINTAINED AT 4 DEGREES RETARDED RELATIVE TO STANDARD TIMING.
[RULE 1303(a)(1)-BACT]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

PERMIT TO OPERATE

Permit No. F10748
A/N 334804

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. 3508 DITA (900 KW), SERIAL NO. 23Z07043, 8 CYLINDERS, TURBOCHARGED, AFTERCOOLED, 1337 BHP, DIESEL FUELED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN A YEAR WHICH INCLUDES NO MORE THAN 50 HOURS FOR PERFORMANCE AND MAINTENANCE TESTING.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
4. OPERATION 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 50 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
5. AN ENGINE OPERATING LOG SHALL BE KEPT AND MAINTAINED ON FILE TO RECORD WHEN THIS ENGINE IS STARTED MANUALLY. THE LOG SHALL LIST THE DATE OF OPERATION, THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION, AND THE REASON FOR OPERATION OF THIS ENGINE. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION (BOTH MANUAL AND AUTOMATIC) FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED ANYTIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]
6. THIS ENGINE SHALL COMPLY WITH RULE 1470.
[RULE 1470]

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

7. THE FUEL INJECTION TIMING OF THIS ENGINE SHALL BE SET AND MAINTAINED AT 4 DEGREES RETARDED RELATIVE TO PRODUCTION TIMING AS ESTABLISHED BY CATERPILLAR IN PRODUCT NEWS BULLETIN REQUIREMENTS TO COMPLY WITH SCAQMD CERTIFIED EQUIPMENT.
[RULE 1303(a)(1)-BACT]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

PERMIT TO OPERATE

Permit No. F10749
A/N 334805

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. 3508 DITA (900 KW), SERIAL NO. 23Z07079, 8 CYLINDERS, TURBOCHARGED, AFTERCOOLED, 1337 BHP, DIESEL FUELED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN A YEAR WHICH INCLUDES NO MORE THAN 50 HOURS FOR PERFORMANCE AND MAINTENANCE TESTING.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
4. OPERATION 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 50 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
5. AN ENGINE OPERATING LOG SHALL BE KEPT AND MAINTAINED ON FILE TO RECORD WHEN THIS ENGINE IS STARTED MANUALLY. THE LOG SHALL LIST THE DATE OF OPERATION, THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION, AND THE REASON FOR OPERATION OF THIS ENGINE. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION (BOTH MANUAL AND AUTOMATIC) FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED ANYTIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]
6. THIS ENGINE SHALL COMPLY WITH RULE 1470.
[RULE 1470]

FACILITY PERMIT TO OPERATE LOMA LINDA UNIV

7. THE FUEL INJECTION TIMING OF THIS ENGINE SHALL BE SET AND MAINTAINED AT 4 DEGREES RETARDED RELATIVE TO PRODUCTION TIMING AS ESTABLISHED BY CATERPILLAR IN PRODUCT NEWS BULLETIN REQUIREMENTS TO COMPLY WITH SCAQMD CERTIFIED EQUIPMENT.
[RULE 1303(a)(1)-BACT]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

**FACILITY PERMIT TO OPERATE
LOMA LINDA UNIV**

PERMIT TO CONSTRUCT/OPERATE

**Permit No. F73156
A/N 435937**

Equipment Description:

(located at Del Webb Library)

INTERNAL COMBUSTION ENGINE, PERKINS, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION, MODEL NO. GCD325, TURBOCHARGED, AFTERCOOLED, 6 CYLINDERS, FOUR CYCLE, 325 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN A YEAR WHICH INCLUDES NO MORE THAN 50 HOURS FOR PERFORMANCE AND MAINTENANCE TESTING.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
4. OPERATION 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 50 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
5. AN ENGINE OPERATING LOG SHALL BE KEPT AND MAINTAINED ON FILE TO RECORD WHEN THIS ENGINE IS STARTED MANUALLY. THE LOG SHALL LIST THE DATE OF OPERATION, THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION, AND THE REASON FOR OPERATION OF THIS ENGINE. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION (BOTH MANUAL AND AUTOMATIC) FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED ANYTIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]

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6. THIS ENGINE SHALL COMPLY WITH RULE 1470.
[RULE 1470]

Periodic Monitoring:

7. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

CO: 2.6 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
NO_x + NMHC: 4.8 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
PM: 0.15 GRAM/BHP-HR, RULE 1303(a)(1)-BACT
PM: RULE 404; SEE APPENDIX B FOR EMISSION LIMITS

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PERMIT TO CONSTRUCT/OPERATE

**Permit No. N24724
A/N 495540**

Equipment Description:

FUEL STORAGE AND DISPENSING FACILITY CONSISTING OF:

1. 2 GASOLINE BALANCE NOZZLES DISPENSING 2 PRODUCTS EQUIPPED WITH PHASE II VAPOR RECOVERY SYSTEM, VAPOR SYSTEMS TECHNOLOGIES, INC., PHASE II ENHANCED VAPOR RECOVERY (EVR) SYSTEM NOT INCLUDING IN-STATION DIAGNOSTICS (ISD) SYSTEM (VR-203-E).
2. 1 - DUAL COMPARTMENT UNDERGROUND GASOLINE/DIESEL STORAGE TANK, 18,000 GALLON CAPACITY, 1 METHANOL COMPATIBLE, CONSISTING OF:
 - A) ONE 12,000 GALLON GASOLINE COMPARTMENT, EQUIPPED WITH PHASE I VAPOR RECOVERY SYSTEM OPW (VR-102-E/I).
 - B) ONE 6,000 GALLON DIESEL COMPARTMENT, NOT EQUIPPED WITH PHASE I VAPOR RECOVERY SYSTEM.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT WAS 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. ALL PERMIT CONDITIONS APPLICABLE TO THE EQUIPMENT DESCRIBED IN THE PREVIOUS PERMIT TO OPERATE N18641 SHALL REMAIN IN EFFECT UNTIL THE NEW OR MODIFIED EQUIPMENT IS CONSTRUCTED AND OPERATED AS DESCRIBED IN THIS NEW PERMIT. THIS PERMIT TO CONSTRUCT/OPERATE SHALL BECOME INVALID IF THE MODIFICATION AS DESCRIBED IN THE EQUIPMENT DESCRIPTION HAS NOT BEEN COMPLETED WITHIN ONE YEAR FROM THE ISSUE DATE. IF THE MODIFICATION HAS NOT BEEN COMPLETED WITHIN ONE YEAR FROM THE ISSUE DATE OF THE PERMIT, A WRITTEN REQUEST SHALL BE SUBMITTED TO THE AQMD (ATTENTION: RANDY MATSUYAMA) TO REINSTATE THE PREVIOUSLY INACTIVATED PERMIT TO OPERATE. A NEW APPLICATION SHALL BE FILED IF THERE ARE PLANS TO CONTINUE WITH THE MODIFICATION. FURTHERMORE, THIS CONDITION DOES NOT ALLOW ANY TIME EXTENSIONS TO ANY MODIFICATIONS REQUIRED BY THE CALIFORNIA AIR RESOURCES BOARD OR AQMD.
[RULE 205]

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4. EXCEPT FOR DIESEL TRANSFERS, PHASE I VAPOR RECOVERY SYSTEMS SHALL BE IN FULL OPERATION WHENEVER FUEL IS BEING TRANSFERRED INTO STORAGE TANKS.
[RULE 461]
5. EXCEPT FOR DIESEL TRANSFERS, PHASE II VAPOR RECOVERY SYSTEMS SHALL BE IN FULL OPERATION WHENEVER FUEL IS BEING TRANSFERRED INTO MOTOR VEHICLES, AS DEFINED IN RULE 461.
[RULE 461]
6. ALL PHASE I AND PHASE II VAPOR RECOVERY EQUIPMENT AT THIS FACILITY SHALL BE INSTALLED, OPERATED AND MAINTAINED TO MEET ALL CALIFORNIA AIR RESOURCES BOARD CERTIFICATION REQUIREMENTS.
[RULE 461, RULE 1303(a)(1)-BACT]
7. THE DISTRICT AT ITS DISCRETION MAY WISH TO WITNESS THE INSTALLATION AND/OR PERFORMANCE TESTING OF THE VST PHASE II EVR SYSTEM INCLUDING ISD SYSTEM. AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE INSTALLATION AND PERFORMANCE TESTING OF THE VST PHASE II EVR SYSTEM INCLUDING ISD SYSTEM, THE APPLICANT SHALL NOTIFY THE AQMD AT TELEPHONE NUMBER (866) 770-9140.
[RULE 461]
8. NEW EQUIPMENT INSTALLATIONS AND SUBSEQUENT SERVICE AND REPAIRS FOR ANY CERTIFIED COMPONENT FOR WHICH THIS PERMIT WAS ISSUED, SHALL ONLY BE PERFORMED BY A CURRENT AND CERTIFIED PERSON WHO HAS SUCCESSFULLY COMPLETED THE MANUFACTURER'S TRAINING COURSE AND APPROPRIATE INTERNATIONAL CODE COUNCIL (ICC) CERTIFICATION OR CARB EQUIVALENT TRAINING. COMPLETION OF ANY AQMD TRAINING COURSE DOES NOT CONSTITUTE AS A SUBSTITUTE FOR THIS REQUIREMENT. PROOF OF SUCCESSFUL COMPLETION OF ANY MANUFACTURER TRAINING COURSE SHALL BE WITH THE MANUFACTURER.
[RULE 461]
9. AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO BACK-FILLING ANY UNDERGROUND STORAGE TANK OR PIPING, THE SCAQMD SHALL BE NOTIFIED BY E-MAIL AT R461BACKFILL@AQMD.GOV OR BY FACSIMILE AT TELEPHONE NUMBER (909) 396-3606. SUCH NOTIFICATION SHALL INCLUDE THE NAME OF THE OWNER OR OPERATOR; THE NAME OF THE CONTRACTORS; THE LOCATION OF THE FACILITY; AND THE SCHEDULED START AND COMPLETION DATES OF THE BACK-FILLING PROCEDURE. THE BACK-FILLING PROCEDURE SHALL NOT COMMENCE UNTIL INSPECTED BY A DISTRICT REPRESENTATIVE.
[RULE 461]

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10. DEPENDING ON THE SYSTEM CONFIGURATION, A LEAK RATE TEST OF DROP TUBE/DRAIN VALVE ASSEMBLY SHALL BE CONDUCTED TO QUANTIFY THE PRESSURE INTEGRITY OF BOTH THE DROP TUBE AND DRAIN VALVE SEAL OR A LEAK RATE TEST OF DROP TUBE OVERFILL PREVENTION DEVICE AND DRAIN VALVE SHALL BE CONDUCTED TO QUANTIFY THE PRESSURE INTEGRITY OF THE DROP TUBE OVERFILL PREVENTION DEVICE AND THE PRESSURE INTEGRITY OF THE SPILL CONTAINER DRAIN VALVE. EITHER TEST SHALL BE CONDUCTED AS A PERFORMANCE TEST AND AS A REVERIFICATION TEST. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH TEST PROCEDURE METHOD TP-201.1C (OCTOBER 8, 2003) OR TP-201.1D (OCTOBER 8, 2003), RESPECTIVELY. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
11. A LEAK RATE AND CRACKING PRESSURE TEST OF PRESSURE/VACUUM RELIEF VENT VALVES SHALL BE CONDUCTED WITHIN TEN (10) DAYS AFTER THE START OF OPERATION OF THE OPW PHASE I EVR EQUIPMENT AND AT LEAST ONCE EVERY THREE (3) YEARS THEREAFTER TO DETERMINE THE PRESSURE AND VACUUM AT WHICH THE PRESSURE/VACUUM VENT VALVE ACTUATES, AND TO DETERMINE THE VOLUMETRIC LEAK RATE AT A GIVEN PRESSURE. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE TEST PROCEDURE METHOD TP-201.1E (OCTOBER 8, 2003). RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST. THIS TEST RESULT SHALL BE KEPT ON SITE FOR THREE (3) YEARS AND MADE AVAILABLE TO DISTRICT REPRESENTATIVES UPON REQUEST.
[RULE 461]
12. A STATIC TORQUE TEST OF ROTATABLE PHASE I ADAPTORS SHALL BE CONDUCTED TO QUANTIFY THE AMOUNT OF STATIC TORQUE REQUIRED TO START THE ROTATION OF THE ROTATABLE PHASE I ADAPTORS. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE TEST PROCEDURE METHOD OUTLINED IN TP-201.1B (OCTOBER 8, 2003) AS A PERFORMANCE TEST AND AS A REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
13. THE PHASE II VAPOR RECOVERY SYSTEM SHALL BE INSTALLED, OPERATED, AND MAINTAINED SUCH THAT THE MAXIMUM ALLOWABLE PRESSURE THROUGH THE SYSTEM, INCLUDING NOZZLE, VAPOR HOSE, SWIVELS, AND UNDERGROUND PIPING DOES NOT EXCEED THE DYNAMIC BACK PRESSURES DESCRIBED BY THE CALIFORNIA AIR RESOURCES BOARD EXECUTIVE ORDER BY WHICH THE SYSTEM WAS CERTIFIED:

NITROGEN FLOWRATES (CFH)
60
80

DYNAMIC BACK PRESSURE (INCHES OF WATER)
0.35
0.62

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DYNAMIC BACK PRESSURE TESTS SHALL BE CONDUCTED TO DETERMINE THE PHASE II SYSTEM VAPOR RECOVERY BACK PRESSURES. THE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH CARB TEST PROCEDURE TP-201.4, METHODOLOGY 1 (JULY 3, 2002); AS A PERFORMANCE TEST AND AS A REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TESTS.

[RULE 461]

14. A STATIC PRESSURE LEAK DECAY TEST SHALL BE CONDUCTED TO DEMONSTRATE THAT THE STORAGE TANKS, THE REMOTE AND/OR NOZZLE VAPOR RECOVERY CHECK VALVES, ASSOCIATED VAPOR RETURN PIPING AND FITTINGS ARE FREE FROM VAPOR LEAKS. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH CARB TEST PROCEDURE METHOD TP-201.3 (MARCH 17, 1999), AS A PERFORMANCE TEST AND AS A REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
15. THE STATIC PRESSURE LEAK DECAY TEST TP-201.3, SHALL BE CONDUCTED IN ACCORDANCE WITH EXHIBIT 4 OF CARB EXECUTIVE ORDER VR-203-E. VERIFICATION OF COMPLETING EACH STEP AS OUTLINED SHALL BE DOCUMENTED BY SUBMITTING A COPY OF EXHIBIT 4 TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
16. A LIQUID REMOVAL TEST SHALL BE CONDUCTED TO QUANTIFY THE REMOVAL RATE OF LIQUID FROM THE VAPOR PASSAGE OF A PHASE II BALANCE SYSTEM HOSE EQUIPPED WITH A LIQUID REMOVAL DEVICE. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH EXHIBIT 5 OF CARB EXECUTIVE ORDER VR-203-E, AS A PERFORMANCE TEST AND REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
17. IF A VST ECS MEMBRANE PROCESSOR IS INSTALLED, A HYDROCARBON SENSOR VERIFICATION TEST SHALL BE CONDUCTED TO DETERMINE THE ACCURACY OF THE VST HYDROCARBON NON-DISPERSIVE INFRARED SENSOR USING KNOWN HYDROCARBON CONCENTRATIONS (PROPANE) CALIBRATION GASES AT GASOLINE DISPENSING FACILITIES. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH EXHIBIT 6 OF CARB EXECUTIVE ORDER VR-203-E, AS A PERFORMANCE TEST AND REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
18. A VAPOR PRESSURE SENSOR VERIFICATION TEST SHALL BE CONDUCTED TO DETERMINE THE PRESSURE MANAGEMENT CONTROL VAPOR PRESSURE SENSOR IS OPERATING IN ACCORDANCE WITH THE PRESSURE SENSOR REQUIREMENTS. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH EXHIBIT 8 OF CARB EXECUTIVE ORDER VR-203-E, AS A PERFORMANCE TEST AND REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]

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19. IF A VST ECS MEMBRANE PROCESSOR IS INSTALLED, A DETERMINATION OF VST PROCESSOR ACTIVATION PRESSURE TEST SHALL BE CONDUCTED TO DETERMINE COMPLIANCE WITH THE VST PROCESSOR ACTIVATION PRESSURE REQUIREMENT. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH EXHIBIT 9 OF CARB EXECUTIVE ORDER VR-203-E, AS A PERFORMANCE TEST AND REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
20. A NOZZLE BAG TEST SHALL BE CONDUCTED ON THE VST PHASE II EVR NOZZLES TO VERIFY THE INTEGRITY OF THE VAPOR VALVE. THE TEST SHALL BE CONDUCTED ON ANY NEWLY INSTALLED OR REPLACED VST PHASE II EVR NOZZLES AND IN ACCORDANCE WITH EXHIBIT 10 OF CARB EXECUTIVE ORDER VR-203-E. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
21. IF A VEEDER-ROOT VAPOR POLISHER IS INSTALLED, A VEEDER-ROOT VAPOR POLISHER OPERABILITY TEST SHALL BE CONDUCTED IN ACCORDANCE WITH ALL OF EXHIBIT 11 OF CARB EXECUTIVE ORDER VR-203-E. THE TEST SHALL BE CONDUCTED AS A PERFORMANCE TEST AND AS A REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
22. IF A VEEDER-ROOT VAPOR POLISHER IS INSTALLED, A VEEDER-ROOT VAPOR POLISHER HYDROCARBON EMISSIONS VERIFICATION TEST SHALL BE CONDUCTED IN ACCORDANCE WITH ALL OF EXHIBIT 12 OF CARB EXECUTIVE ORDER VR-203-E TO VERIFY THE PROPER PERFORMANCE OF THE VEEDER-ROOT VAPOR POLISHER. THE TEST SHALL BE CONDUCTED AS A PERFORMANCE TEST AND AS A REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
23. IF THE SECURITY SEAL TAG ON THE VAPOR POLISHER IS BROKEN OR MISSING, THE OWNER/OPERATOR SHALL PERFORM BOTH A VEEDER-ROOT VAPOR POLISHER OPERABILITY TEST (EXHIBIT 11), AND A VEEDER ROOT VAPOR POLISHER HYDROCARBON EMISSIONS VERIFICATION TEST (EXHIBIT 12) WITHIN SEVEN (7) DAYS OF DISCOVERY, OR WHEN IT SHOULD BE REASONABLY KNOWN THAT SUCH SEAL IS MISSING OR BROKEN. WITHIN SEVEN (7) DAYS OF A REPORT OF A MISSING OR BROKEN SECURITY SEAL TAG, A NEW SECURITY SEAL TAG SHALL BE APPLIED TO THE VAPOR POLISHER ONLY BY A MANUFACTURER REPRESENTATIVE AND ONLY IMMEDIATELY AFTER PASSING THE ABOVE REQUIRED TESTS. A NEW SECURITY SEAL TAG SHALL NOT BE PLACED AND THE VAPOR POLISHER SHALL BE REPLACED WITH A NEW ONE IF THE VAPOR POLISHER FAILED ANY SUCH TESTS.
[RULE 461]
24. THE DYNAMIC BACK PRESSURE TESTS TP-201.4, SHALL BE CONDUCTED IN ACCORDANCE WITH EXHIBIT 13 OF CARB EXECUTIVE ORDER VR-203-E. VERIFICATION OF COMPLETING EACH STEP AS OUTLINED SHALL BE DOCUMENTED BY SUBMITTING A COPY OF EXHIBIT 13 TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]

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25. UNLESS AQMD RULE 461 REQUIRES A MORE FREQUENT TESTING OR INSPECTION SCHEDULE, THE OWNER/OPERATOR SHALL BE RESPONSIBLE TO PERFORM THE SCHEDULED DAILY AND ANNUAL INSPECTIONS AS OUTLINED IN THE ARB APPROVED INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR THE VST PHASE II EVR SSSYSTEM, AS WELL AS THE REQUIRED VAPOR RECOVERY SYSTEM TESTS AS PER THE CURRENT AND APPROPRIATE ARB EXECUTIVE ORDER.
[RULE 461]
26. A CARB CERTIFIED PHASE II ENHANCED VAPOR RECOVERY SYSTEM SHALL BE FULLY PERMITTED, INSTALLED, AND TESTED BY OCTOBER 1, 2008. FAILURE TO ACHIEVE THIS CONDITION BY OCTOBER 1, 2008, SHALL RESULT IN THE OWNER/OPERATOR TO FILE A DISTRICT APPROVED COMPLIANCE PLAN OUTLINING THE INCREMENTS OF PROGRESS TOWARDS COMPLETING THE INSTALLATION OF A CARB CERTIFIED PHASE II ENHANCED VAPOR RECOVERY SYSTEM BY APRIL 1, 2009.
[RULE 461]
27. IF THE OWNER/OPERATOR PLANS TO PERMANENTLY CEASE ALL GASOLINE DISPENSING OPERATIONS BEFORE APRIL 1, 2009, A COMPLIANCE PLAN SHALL BE FILED DECLARING TO IRREVOCABLY SURRENDER THEIR PERMIT TO OPERATE.
[RULE 461]
28. IF THE VAPOR PROCESSOR IS NOT ACCESSIBLE FOR INSPECTION AND PERFORMING TESTS PURPOSES FROM GROUND LEVEL, THE OWNER/OPERATOR SHALL PROVIDE SAFE ACCESS, WHICH IS ON SITE AND IMMEDIATELY AVAILABLE UPON REQUEST, TO THE VAPOR PROCESSOR UNIT. THE ACCESS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GENERAL INDUSTRY SAFETY ORDERS OF THE STATE OF CALIFORNIA OR IN COMPLIANCE WITH STANDARDS SPECIFIED BY THE DIVISION OF OCCUPATIONAL SAFETY AND HEALTH OF THE CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS (I.E. CAL/OSHA).
[RULE 461]
29. THE AQMD SHALL BE NOTIFIED BY E-MAIL AT R461TESTING@AQMD.GOV OR BY FACSIMILE AT TELEPHONE NUMBER (909) 396-3606 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO ANY OF THE ABOVE MENTIONED TESTING REQUIREMENTS. SUCH NOTIFICATION SHALL INCLUDE THE NAME OF THE OWNER OR OPERATOR; THE NAME OF THE CONTRACTOR; THE LOCATION OF THE FACILITY; AND THE SCHEDULED START AND COMPLETION DATES OF THE TESTS TO BE PERFORMED.
[RULE 461]
30. THE TESTING FOR THE ABOVE MENTIONED TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE MOST RECENT RULE 461 AMENDMENT OR CARB EXECUTIVE ORDER REQUIREMENTS, WHICHEVER IS MORE STRINGENT.
[RULE 461]
31. SHOULD THE FACILITY DISPENSE MORE THAN 600,000 GALLONS OF GASOLINE PER CALENDAR YEAR AND IF THE FACILITY UNDERGOES A MAJOR MODIFICATION AS DEFINED BY CARB'S ADVISORY LETTER NUMBER 336, "ENHANCED VAPOR RECOVERY IMPLEMENTATION UPDATE" DATED APRIL 15, 2005; THE OPERATOR SHALL IMMEDIATELY CEASE ALL GASOLINE DISPENSING OPERATIONS AND FILE AN APPLICATION FOR A NEW PERMIT TO CONSTRUCT/OPERATE TO INSTALL A CARB CERTIFIED ISD SYSTEM. GASOLINE DISPENSING

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OPERATIONS SHALL NOT RESUME UNTIL THE ISD SYSTEM HAS BEEN GRANTED A PERMIT TO CONSTRUCT/OPERATE AND HAS BEEN FULLY INSTALLED, TESTED, AND OPERATIVE.
[RULE 461]

32. SHOULD THE FACILITY DISPENSE MORE THAN 600,000 GALLONS OF GASOLINE IN ANY CALENDAR YEAR AND IF THE FACILITY DOES NOT UNDERGO A MAJOR MODIFICATION AS DEFINED BY CARB'S ADVISORY LETTER NUMBER 336, "ENHANCED VAPOR RECOVERY IMPLEMENTATION UPDATE" DATED APRIL 15, 2005; THE OPERATOR SHALL FILE AN APPLICATION FOR A NEW PERMIT TO CONSTRUCT/OPERATE TO INSTALL A CARB CERTIFIED ISD SYSTEM. THE ISD SYSTEM SHALL BE FULLY INSTALLED, TESTED, AND OPERATIVE BASED ON THE FOLLOWING TABLE:

<u>GASOLINE THROUGHPUT PER CALENDAR YEAR</u>	<u>DATE</u>
GREATER THAN 1.8 MILLION GALLONS	SEPTEMBER 1, 2009
BETWEEN 600,000 AND 1.8 MILLION GALLONS	SEPTEMBER 1, 2010

[RULE 461]

33. ALL RECORDS AND TEST RESULTS THAT ARE REQUIRED TO BE MAINTAINED BY RULE 461 SHALL BE KEPT ON SITE FOR FOUR YEARS AND MADE AVAILABLE TO DISTRICT REPRESENTATIVES UPON REQUEST.
[RULE 461]

Periodic Monitoring:

34. THE OPERATOR SHALL HAVE A PERSON THAT HAS BEEN TRAINED IN ACCORDANCE WITH RULE 461(d)(5) CONDUCT A SEMI-ANNUAL INSPECTION OF THE GASOLINE TRANSFER AND DISPENSING EQUIPMENT. THE FIRST INSPECTION SHALL BE IN ACCORDANCE WITH RULE 461, ATTACHMENT C, THE SECOND INSPECTION SHALL BE IN ACCORDANCE WITH RULE 461, ATTACHMENT D, AND THE SUBSEQUENT INSPECTIONS SHALL ALTERNATE PROTOCOLS. THE OPERATOR SHALL KEEP RECORDS OF THE INSPECTION AND THE REPAIRS IN ACCORDANCE TO RULE 461 AND SECTION K OF THIS PERMIT.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

VOC: RULE 461

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PERMIT TO OPERATE

Permit No. F81875
A/N 456510

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. 3306 ATAAC, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION, TURBOCHARGED, AFTERCOOLED, 377 BHP.

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 MORE THAN A TOTAL OF 200 HOURS IN ANY ONE YEAR WHICH INCLUDES NO MORE THAN 50 HOURS FOR MAINTENANCE AND PERFORMANCE TESTING.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
4. OPERATION 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 UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
5. AN ENGINE OPERATING LOG SHALL BE KEPT AND MAINTAINED ON FILE TO RECORD WHEN THIS ENGINE IS STARTED MANUALLY. THE LOG SHALL LIST THE DATE OF OPERATION, THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION, AND THE REASON FOR OPERATION OF THIS ENGINE. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION (BOTH MANUAL AND AUTOMATIC) FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED ANYTIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]

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6. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1303(a)(1)-BACT]
7. THIS ENGINE SHALL COMPLY WITH RULE 1470.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (a)(4)]

Emissions And Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
CO: 8.5 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
NOx: 6.9 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
PM₁₀: 0.38 GRAM/BHP-HR, RULE 1303(a)(1)-BACT
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
ROG: 1.0 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT

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PERMIT TO OPERATE

**Permit No. F95797
A/N 459899**

Equipment Description:

BOILER, MURRAY-TRANE, WATERTUBE TYPE, MODEL NO. WBDA-3-57, SERIAL NO. 10786, WITH ONE BURNER, COEN COMPANY, MODEL NO. DAZ, NATURAL GAS FIRED, WITH AMBER 363 FUEL OIL STAND-BY, RATED AT 49,000,000 BTU/HR, AND EQUIPPED WITH FLUE GAS RECIRCULATION.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS BOILER SHALL BE FIRED WITH NATURAL GAS ONLY, EXCEPT DURING TESTING, MAINTENANCE, NATURAL GAS CURTAILMENT OR AN EMERGENCY EVENT, AT WHICH TIME AMBER 363 FUEL OIL MAY BE USED.
[RULE 1303(b)(2)-OFFSET]
4. THE OPERATOR SHALL COMPLY WITH ALL THE APPLICABLE REQUIREMENTS OF RULE 1146.
[RULE 1146]
5. WHEN FIRING ON NATURAL GAS, THIS BOILER SHALL NOT EMIT MORE THAN 30 PPM OF OXIDES OF NITROGEN (NOX), CALCULATED AS NO₂, AND NOT MORE THAN 400 PPM OF CARBON MONOXIDE, ALL MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂ AND AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES.

WHEN FIRING ON AMBER 363 FUEL OIL, THIS BOILER SHALL NOT EMIT MORE THAN 40 PPM OF OXIDES OF NITROGEN (NOX), CALCULATED AS NO₂, AND NOT MORE THAN 400 PPM OF CARBON MONOXIDE, ALL MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂ AND AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES.
[RULE 1146]
6. WHENEVER THE BOILER IS FIRED USING NATURAL GAS, THE USE OF THIS FUEL SHALL NOT EXCEED 190,476,190 CUBIC FEET IN ANY ONE CALENDAR YEAR.
[RULE 1146]
7. WHENEVER THE BOILER IS FIRED USING AMBER 363 FUEL OIL, THE USE OF THIS FUEL SHALL NOT EXCEED 783,285 GALLONS IN ANY ONE CALENDAR YEAR.
[RULE 1146]

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8. THE AMBER 363 FUEL OIL SUPPLIED TO THE BURNER SHALL CONTAIN NO MORE THAN 0.0015 PERCENT BY WEIGHT SULFUR.
[RULE 431.2]
9. THE OPERATOR SHALL HAVE THE BURNER EQUIPPED WITH A CONTROL SYSTEM TO AUTOMATICALLY REGULATE THE COMBUSTION AIR, FUEL AND RECIRCULATED FLUE GAS AS THE BOILER LOAD VARIES. THE CONTROL SYSTEM SHALL BE ADJUSTED AND TUNED AT LEAST ONCE A YEAR ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS TO MAINTAIN ITS ABILITY TO REPEAT THE SAME PERFORMANCE AT THE SAME FIRING RATE.
[RULE 1146]

Periodic Monitoring:

10. THE OPERATOR SHALL INSTALL AND MAINTAIN NON-RESETTABLE TOTALIZING FUEL FLOW METERS TO MEASURE THE VOLUME OF NATURAL GAS USED IN CUBIC FEET AND THE VOLUME OF AMBER 363 FUEL OIL USED IN GALLONS.
[RULE 3004(a)(4)-Periodic Monitoring]
11. RECORDS OF FUEL USAGE, ADJUSTMENTS, TUNE-UPS AND CALIBRATIONS AS STATED IN CONDITION NOS. 6, 7, 9 AND 10 SHALL BE KEPT FOR AT LEAST FIVE YEARS AND BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. [RULE 3004(a)(4)-Periodic Monitoring]
12. THE COMBUSTION BURNER SHALL BE INSPECTED AND MAINTAINED PER MANUFACTURER SPECIFICATIONS. RECORDS SHALL BE MAINTAINED FOR THE INSPECTIONS AND MAINTENANCE OF THE BURNER.
[RULE 3004(a)(4)-Periodic Monitoring]
13. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 3004(a)(4)-Periodic Monitoring]
14. THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE NO_x EMISSION LIMIT BY CONDUCTING A SOURCE TEST AT LEAST ONCE EVERY YEAR USING AQMD METHOD 100.1 OR 7.1. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH RULE 1146 CONCENTRATION LIMIT. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.

[RULE 3004(a)(4)-Periodic Monitoring]
15. THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE CO EMISSION LIMIT BY CONDUCTING A SOURCE TEST AT LEAST ONCE EVERY YEAR USING AQMD METHOD 100.1 OR 10.1. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH RULE 1146 CONCENTRATION LIMIT. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.

[RULE 3004(a)(4)-Periodic Monitoring]

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16. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSION FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THIS EQUIPMENT HAS COMBUSTED ONE MILLION GALLONS OF AMBER 363 FUEL OIL, TO BE COUNTED CUMULATIVELY OVER A FIVE YEAR PERIOD. THE INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE HOUR, THE OPERATOR SHALL EITHER:
- A. TAKE CORRECTIVE ACTION(S) THAT ELIMINATE(S) THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN THE SAME FASHION AS DEVIATIONS ARE REQUIRED TO BE REPORTED IN SECTION K OF THIS PERMIT; OR
 - B. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

IN ADDITION, THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- A. STACK OR EMISSION POINT IDENTIFICATION;
 - B. DESCRIPTION OF ANY CORRECTIVE ACTION(S) TAKEN TO ABATE VISIBLE EMISSIONS;
 - C. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
 - D. VISIBLE EMISSION OBSERVATION RECORD BY A CERTIFIED SMOKE READER.
- [RULE 3004(a)(4)-Periodic Monitoring]

17. IF ANNUAL AMBER 363 FUEL OIL USAGE EXCEEDS 2,000,000 GALLONS IN ANY ONE YEAR, THEN OPERATOR SHALL DETERMINE COMPLIANCE WITH THE PARTICULATE MATTER (PM) EMISSION LIMIT(S) BY CONDUCTING A SOURCE TEST AT LEAST ONCE EVERY FIVE YEARS USING AQMD METHOD 5.2. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH RULE 409 LIMIT. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT. FOR THE PURPOSE OF DETERMINING COMPLIANCE WITH RULE 409 LIMIT, THE EMISSIONS SHALL BE MEASURED AND AVERAGED OVER A 60 MINUTE TIME PERIOD.

THE OPERATOR SHALL CONDUCT AN ANNUAL MAINTENANCE INSPECTION CHECK OF THE OPERATING PRESSURE, TEMPERATURE, AIR SUPPLY, VENT, SMOKE SPOT, BURNER CONDITION, HEAT-TRANSFER SURFACE CONDITION, WATER TREATMENT, BLOWDOWN AND LEAKAGE.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- A. DATE WHEN ANNUAL MAINTENANCE INSPECTION WAS CONDUCTED.
- [RULE 3004(a)(4)-Periodic Monitoring]

18. FOR UNITS WITH A HEAT INPUT GREATER THAN 10 MMBTU/HR AND ANNUAL AMBER 363 FUEL OIL USAGE GREATER THAN 1,000,000 GALLONS, OR GREATER THAN 336 HOURS OF OPERATION

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BUT NOT EXCEEDING 2,000,000 GALLONS IN ANY ONE YEAR, OPERATOR SHALL CONDUCT AN ANNUAL MAINTENANCE INSPECTION CHECK OF THE OPERATING PRESSURE, TEMPERATURE, AIR SUPPLY, VENT, SMOKE SPOT, BURNER CONDITION, HEAT-TRANSFER SURFACE CONDITION, WATER TREATMENT, BLOWDOWN AND LEAKAGE.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

A. DATE WHEN ANNUAL MAINTENANCE INSPECTION WAS CONDUCTED.
[RULE 3004(a)(4)-Periodic Monitoring]

Emissions And Requirements:

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

NOx: 30 PPMV, RULE 1146, NATURAL GAS
NOx: 40 PPMV, RULE 1146, FUEL OIL
CO: 400 PPMV, RULE 1146
CO: 2000 PPMV, RULE 407
SOX: 500 PPMV, RULE 407
PM: 0.1 GR/SCF, RULE 409

**FACILITY PERMIT TO OPERATE
LOMA LINDA UNIV**

PERMIT TO OPERATE

**Permit No. F299255
A/N 480391**

Equipment Description:

COGENERATION SYSTEM NO. 1 CONSISTING OF:

1. GAS TURBINE, DETROIT DIESEL ALLISON, MODEL 501-KH, 59353000 BTU/HR, NATURAL GAS OR DIESEL FIRED WITH STEAM AND WATER INJECTION, DRIVING A 6054 KILOWATT ELECTRICAL GENERATOR.
2. SUPERHEATER, UNFIRED, 21780 LBS/HR, MAXIMUM STEAM OUTPUT.
3. DUCT BURNER, COEN, 44211000 BTU/HR, LOW NOX BURNER, NATURAL GAS FIRED ONLY.
4. WASTE HEAT BOILER, ABCO, 47000 LBS/HR MAXIMUM STEAM OUTPUT, WITH AN EVAPORATOR, ECONOMIZER AND FEEDWATER HEATER.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE OPERATED AND MAINTAINED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.
[RULE 204]
4. THE DUCT BURNER SHALL BE ONLY FIRED WITH NATURAL GAS.
[RULE 1134, RULE 1303(a)(1)-BACT]
5. A CONTINUOUS MONITORING SYSTEM SHALL BE INSTALLED AND OPERATED TO MEASURE THE COMBINED GAS TURBINE AND DUCT BURNER EXHAUST FOR NOX AND O2 CONCENTRATIONS ON A DRY BASIS. THE SYSTEM SHALL ALSO CONVERT THE ACTUAL NOX CONCENTRATIONS TO CORRECTED NOX CONCENTRATIONS AT 15% OXYGEN ON A DRY BASIS AND CONTINUOUSLY RECORD THE DRY NOX CONCENTRATIONS, DRY OXYGEN CONCENTRATIONS AND CORRECTED NOX CONCENTRATIONS AT 15% OXYGEN DRY. IN ADDITION, THE SYTEM SHALL MONITOR AND RECORD THE DAILY NOX EMISSIONS IN POUNDS PER DAY FROM EACH COGENERATION SYSTEM. THIS SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF RULE 218.

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A REPORT SHALL BE SUBMITTED TO THE DISTRICT ON A MONTHLY BASIS. THIS MONTHLY REPORTS SHALL INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING:

1. DAY OF THE MONTH
 2. MONITOR "ON" HOURS
 3. GAS TURBINE OPERATING HOURS
 4. HOUR OF PEAK NOX
 5. MAXIMUM NOX EMISSIONS (PPMVD AT 15% O₂)
 6. MAXIMUM NOX EMISSIONS (POUNDS PER DAY)
 7. AVERAGE NOX EMISSIONS (PPMVD AT 15% O₂)
 8. AVERAGE NOX EMISSIONS (POUNDS PER DAY)
 9. TOTAL NOX EMISSIONS (POUNDS PER DAY)
 10. EXHAUST FLOW RATE (DSCFM)
 11. PERCENT OF DUCT BURNER FUEL
 12. ANY START UP, SHUTDOWN OR MALFUNCTION OF THE MONITOR
[RULE 1134, RULE 1303(b)(2)-OFFSET, RULE 218]
6. A CONTINUOUS MONITORING SYSTEM SHALL BE INSTALLED AND OPERATED TO MONITOR AND RECORD THE FUEL CONSUMPTION AND THE RATIO OF WATER TO FUEL BEING FIRED IN THE TURBINE. THIS SYSTEM SHALL BE ACCURATE TO WITHIN PLUS MINUS 5 PERCENT AND SHALL BE APPROVED BY THE EXECUTIVE OFFICER PRIOR TO INSTALLATION.
[RULE 1134, RULE 1303(b)(2)-OFFSET, RULE 218]
7. THE OPERATOR SHALL KEEP RECORDS OF RESULTS FROM THE MONITORS REQUIRED BY PERMIT CONDITION NOS. 5 AND 6. THE RECORDS SHALL BE MAINTAINED ON FILE FOR AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE UPON REQUEST TO DISTRICT PERSONNEL.
[RULE 1134, RULE 1303(b)(2)-OFFSET]
8. WHEN FIRING DIESEL FUEL, EMISSIONS OF OXIDES OF NITROGEN AS NO₂ FROM THE COMBINED TURBINE AND DUCT BURNER EXHAUST SHALL NOT EXCEED 42 PPMV, CALCULATED DRY, AT 15% OXYGEN.
[RULE 1303(a)(1)-BACT]
9. WHEN FIRING NATURAL GAS, EMISSIONS OF OXIDES OF NITROGEN AS NO₂ FROM THE COMBINED TURBINE AND DUCT BURNER EXHAUST SHALL NOT EXCEED 21 PPMV, CALCULATED DRY, AT 15% OXYGEN.
[RULE 1134]
10. OXIDES OF SULFUR EMISSIONS REPORTED AS SO₂ FROM THIS COGENERATION PERMIT UNIT SHALL NOT EXCEED 2 POUNDS PER DAY WHILE THE TURBINE IS FIRING NATURAL GAS AND 74 POUNDS PER DAY WHILE THE TURBINE IS FIRING DIESEL FUEL. THE COMBINED SOX EMISSIONS REPORTED AS SO₂ FROM COGENERATION SYSTEM NUMBERS 1 AND 2 SHALL NOT EXCEED 3 POUNDS PER DAY WHILE THE TURBINES ARE FIRING NATURAL GAS AND 136 POUNDS PER DAY WHILE THE TURBINES ARE FIRING DIESEL FUEL.
[RULE 1303(b)(2)-OFFSET]
11. OXIDES OF NITROGEN EMISSIONS REPORTED AS NO₂ FROM THIS COGENERATION PERMIT UNIT SHALL NOT EXCEED 191 POUNDS PER DAY WHILE THE TURBINE IS FIRING NATURAL GAS AND 229 POUNDS PER DAY WHILE THE TURBINE IS FIRING DIESEL FUEL. THE COMBINED NOX

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- EMISSIONS REPORTED AS NO₂ FROM COGENERATION SYSTEM NUMBERS 1 AND 2 SHALL NOT EXCEED 282 POUNDS PER DAY WHILE THE TURBINES ARE FIRING NATURAL GAS AND 339 POUNDS PER DAY WHILE THE TURBINES ARE FIRING DIESEL FUEL.
[RULE 1303(b)(2)-OFFSET]
12. CARBON MONOXIDE EMISSIONS FROM THIS COGENERATION PERMIT UNIT SHALL NOT EXCEED 182 POUNDS PER DAY WHILE THE TURBINE IS FIRING NATURAL GAS AND 466 POUNDS PER DAY WHILE THE TURBINE IS FIRING DIESEL FUEL. THE COMBINED CO EMISSIONS FROM COGENERATION SYSTEM NUMBERS 1 AND 2 SHALL NOT EXCEED 211 POUNDS PER DAY WHILE THE TURBINES ARE FIRING NATURAL GAS AND 552 POUNDS PER DAY WHILE THE TURBINES ARE FIRING DIESEL FUEL.
[RULE 1303(b)(2)-OFFSET]
13. ORGANIC EMISSIONS FROM THIS COGENERATION PERMIT UNIT SHALL NOT EXCEED 36 POUNDS PER DAY WHILE THE TURBINE IS FIRING NATURAL GAS AND 36 POUNDS PER DAY WHILE THE TURBINE IS FIRING DIESEL FUEL. THE COMBINED ORGANIC EMISSIONS FROM COGENERATION SYSTEM NUMBERS 1 AND 2 SHALL NOT EXCEED 72 POUNDS PER DAY WHILE THE TURBINES ARE FIRING NATURAL GAS AND 72 POUNDS PER DAY WHILE THE TURBINES ARE FIRING DIESEL FUEL.
[RULE 1303(b)(2)-OFFSET]
14. PARTICULATE EMISSIONS FROM THIS COGENERATION PERMIT UNIT SHALL NOT EXCEED 36 POUNDS PER DAY WHILE THE TURBINE IS FIRING NATURAL GAS AND 62 POUNDS PER DAY WHILE THE TURBINE IS FIRING DIESEL FUEL. THE COMBINED PARTICULATE EMISSIONS FROM COGENERATION SYSTEM NUMBERS 1 AND 2 SHALL NOT EXCEED 72 POUNDS PER DAY WHILE THE TURBINES ARE FIRING NATURAL GAS AND 125 POUNDS PER DAY WHILE THE TURBINES ARE FIRING DIESEL FUEL.
[RULE 1303(b)(2)-OFFSET]
15. DIESEL FUEL MAY BE BURNED IN THE TURBINE ONLY IN THE EVENT OF A NATURAL GAS CURTAILMENT OR IN THE EVENT OF AN EMERGENCY FAILURE OR MAINTENANCE REQUIREMENTS OF THE NATURAL GAS DELIVERY SYSTEM FOR BOILER TESTING WHICH IS NOT TO EXCEED ONE HALF HOUR PER MONTH.
[RULE 1303(b)(2)-OFFSET]
16. DAILY RECORDS OF DIESEL FUEL CONSUMPTION SHALL BE MAINTAINED AND MADE AVAILABLE UPON REQUEST TO DISTRICT PERSONNEL.
[RULE 1303(b)(2)-OFFSET]
17. THE MAXIMUM TOTAL QUANTITY OF NATURAL GAS USED IN ANY ONE HOUR SHALL NOT EXCEED 56530 CUBIC FEET FOR THE GAS TURBINE AND 42110 CUBIC FEET FOR THE DUCT BURNER.
[RULE 1303(b)(2)-OFFSET]
18. THE BOILER REFERENCED IN PERMIT NO. F32184 (A/N 252359) MAY BE IN OPERATION WHEN ONLY ONE OF THE COGENERATION SYSTEMS NO. 1 OR 2 IS OPERATING.
[RULE 1303(b)(2)-OFFSET]
19. WHEN BOTH COGENERATION SYSTEM NOS. 1 AND 2 ARE IN SIMULTANEOUS OPERATION, THE BOILER REFERENCED IN PERMIT NO. F32184 (A/N 252359) CANNOT BE OPERATED.

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[RULE 1303(b)(2)-OFFSET]

20. RECORDS OF DAILY OPERATION OF THE EXISTING BOILER AND THE COGENERATION SYSTEMS SHALL BE MAINTAINED BY LOMA LINDA UNIVERSITY AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
[RULE 1303(b)(2)-OFFSET]

Periodic Monitoring:

21. THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE CO MASS EMISSION LIMIT(S) EITHER BY: (a) CONDUCTING A SOURCE TEST AT LEAST ONCE EVERY FIVE YEARS USING AQMD METHOD 100.1 OR 10.1; OR (b) CONDUCTING A TEST AT LEAST ANNUALLY USING A PORTABLE ANALYZER AND AQMD-APPROVED TEST METHOD.. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH THE MASS EMISSION LIMITS IN CONDITION NO. 11. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.
[RULE 3004 (a)(4)]
22. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSION FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT ON AN ANNUAL BASIS WHENEVER THIS EQUIPMENT IS FIRED ON FUEL OIL FOR TRAINING/TESTING PURPOSE; AND AFTER EVERY 400 CUMULATIVE HOURS OF OPERATION ON DIESEL FUEL OR AFTER EVERY TWO MILLION GALLONS OF DIESEL FUEL COMBUSTED, TO BE COUNTED CUMULATIVELY OVER A FIVE YEAR PERIOD. THE INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE HOUR, THE OPERATOR SHALL EITHER:
- A. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN THE SAME FASHION AS DEVIATIONS ARE REQUIRED TO BE REPORTED IN SECTION K OF THIS PERMIT;
OR
 - B. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.
- IN ADDITION, THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:
- A. STACK OR EMISSION POINT IDENTIFICATION;
 - B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
 - C. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
 - D. VISIBLE EMISSION OBSERVATION RECORD BY A CERTIFIED SMOKE READER.
- [RULE 3004 (a)(4)]

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23. THE OPERATOR SHALL CONDUCT SOURCE TEST(S) IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
- A. THE TEST SHALL BE CONDUCTED AT LEAST ONCE DURING THE LIFE OF THE PERMIT.
 - B. THE TEST SHALL BE CONDUCTED TO DETERMINE THE PARTICULATE EMISSIONS USING EPA METHOD 5.2 MEASURED OVER A 60 MINUTE AVERAGING TIME PERIOD.
 - C. THE TEST SHALL BE CONDUCTED TO DEMONSTRATE COMPLIANCE WITH CONDITION NO. 13 (NATURAL GAS ONLY).
- [RULE 3004 (a)(4)]

Emissions And Requirements:

24. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
- NOx: 42 PPMV, RULE 1303(a)(1)-BACT
 - NOx: 21 PPMV, RULE 1134
 - CO: 2000 PPMV, RULE 407
 - SOx: 500 PPMV, RULE 407
 - PM: 0.1 GR/SCF, RULE 409
 - SOx: 2 LBS/DAY (ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
 - SOx: 3 LBS/DAY (COMBINED COGEN UNITS 1 & 2, ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
 - SOx: 74 LBS/DAY (ON DIESEL), RULE 1303(b)(2)-OFFSET
 - SOx: 136 LBS/DAY (COMBINED COGEN UNITS 1 & 2, ON DIESEL), RULE 1303(b)(2)-OFFSET
 - NOx: 191 LBS/DAY (ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
 - NOx: 282 LBS/DAY (COMBINED COGEN UNITS 1 & 2, ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
 - NOx: 229 LBS/DAY (ON DIESEL), RULE 1303(b)(2)-OFFSET
 - NOx: 339 LBS/DAY (COMBINED COGEN UNITS 1 & 2, ON DIESEL), RULE 1303(b)(2)-OFFSET
 - CO: 182 LBS/DAY (ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
 - CO: 211 LBS/DAY (COMBINED COGEN UNITS 1 & 2, ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
 - CO: 466 LBS/DAY (ON DIESEL), RULE 1303(b)(2)-OFFSET
 - CO: 552 LBS/DAY (COMBINED COGEN UNITS 1 & 2, ON DIESEL), RULE 1303(b)(2)-OFFSET
 - ROG: 36 LBS/DAY (ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
 - ROG: 72 LBS/DAY (COMBINED COGEN UNITS 1 & 2, ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
 - ROG: 36 LBS/DAY (ON DIESEL), RULE 1303(b)(2)-OFFSET
 - ROG: 72 LBS/DAY (COMBINED COGEN UNITS 1 & 2, ON DIESEL), RULE 1303(b)(2)-OFFSET
 - PM: 36 LBS/DAY (ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
 - PM: 72 LBS/DAY (COMBINED COGEN UNITS 1 & 2, ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
 - PM: 62 LBS/DAY (ON DIESEL), RULE 1303(b)(2)-OFFSET
 - PM: 125 LBS/DAY (COMBINED COGEN UNITS 1 & 2, ON DIESEL), RULE 1303(b)(2)-OFFSET
 - NOx: 150 PPM, 40 CFR60 SUBPART GG
 - SOx: 150 PPM, 40 CFR60 SUBPART GG

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PERMIT TO OPERATE

Permit No. F99256
A/N 480393

Equipment Description:

COGENERATION SYSTEM NO. 2 CONSISTING OF:

1. GAS TURBINE, DETROIT DIESEL ALLISON, MODEL 501-KH, 59353000 BTU/HR, NATURAL GAS OR DIESEL FIRED WITH STEAM AND WATER INJECTION, DRIVING A 6054 KILOWATT ELECTRICAL GENERATOR.
2. SUPERHEATER, UNFIRED, 21780 LBS/HR, MAXIMUM STEAM OUTPUT.
3. DUCT BURNER, COEN, 44211000 BTU/HR, LOW NOX BURNER, NATURAL GAS FIRED ONLY.
4. WASTE HEAT BOILER, ABCO, 47000 LBS/HR MAXIMUM STEAM OUTPUT, WITH AN EVAPORATOR, ECONOMIZER AND FEEDWATER HEATER.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE OPERATED AND MAINTAINED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.
[RULE 204]
4. THE DUCT BURNER SHALL BE ONLY FIRED WITH NATURAL GAS.
[RULE 1134, RULE 1303(a)(1)-BACT]
5. A CONTINUOUS MONITORING SYSTEM SHALL BE INSTALLED AND OPERATED TO MEASURE THE COMBINED GAS TURBINE AND DUCT BURNER EXHAUST FOR NOX AND O2 CONCENTRATIONS ON A DRY BASIS. THE SYSTEM SHALL ALSO CONVERT THE ACTUAL NOX CONCENTRATIONS TO CORRECTED NOX CONCENTRATIONS AT 15% OXYGEN ON A DRY BASIS AND CONTINUOUSLY RECORD THE DRY NOX CONCENTRATIONS, DRY OXYGEN CONCENTRATIONS AND CORRECTED NOX CONCENTRATIONS AT 15% OXYGEN DRY. IN ADDITION, THE SYTEM SHALL MONITOR AND RECORD THE DAILY NOX EMISSIONS IN POUNDS PER DAY FROM EACH COGENERATION SYSTEM. THIS SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF RULE 218.

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A REPORT SHALL BE SUBMITTED TO THE DISTRICT ON A MONTHLY BASIS. THIS MONTHLY REPORTS SHALL INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING:

1. DAY OF THE MONTH
 2. MONITOR "ON" HOURS
 3. GAS TURBINE OPERATING HOURS
 4. HOUR OF PEAK NOX
 5. MAXIMUM NOX EMISSIONS (PPMVD AT 15% O₂)
 6. MAXIMUM NOX EMISSIONS (POUNDS PER DAY)
 7. AVERAGE NOX EMISSIONS (PPMVD AT 15% O₂)
 8. AVERAGE NOX EMISSIONS (POUNDS PER DAY)
 9. TOTAL NOX EMISSIONS (POUNDS PER DAY)
 10. EXHAUST FLOW RATE (DSCFM)
 11. PERCENT OF DUCT BURNER FUEL
 12. ANY START UP, SHUTDOWN OR MALFUNCTION OF THE MONITOR
[RULE 1134, RULE 1303(b)(2)-OFFSET, RULE 218]
6. A CONTINUOUS MONITORING SYSTEM SHALL BE INSTALLED AND OPERATED TO MONITOR AND RECORD THE FUEL CONSUMPTION AND THE RATIO OF WATER TO FUEL BEING FIRED IN THE TURBINE. THIS SYSTEM SHALL BE ACCURATE TO WITHIN PLUS MINUS 5 PERCENT AND SHALL BE APPROVED BY THE EXECUTIVE OFFICER PRIOR TO INSTALLATION.
[RULE 1134, RULE 1303(b)(2)-OFFSET, RULE 218]
7. THE OPERATOR SHALL KEEP RECORDS OF RESULTS FROM THE MONITORS REQUIRED BY PERMIT CONDITION NOS. 5 AND 6. THE RECORDS SHALL BE MAINTAINED ON FILE FOR AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE UPON REQUEST TO DISTRICT PERSONNEL.
[RULE 1134, RULE 1303(b)(2)-OFFSET]
8. WHEN FIRING DIESEL FUEL, EMISSIONS OF OXIDES OF NITROGEN AS NO₂ FROM THE COMBINED TURBINE AND DUCT BURNER EXHAUST SHALL NOT EXCEED 42 PPMV, CALCULATED DRY, AT 15% OXYGEN.
[RULE 1303(a)(1)-BACT]
9. WHEN FIRING NATURAL GAS, EMISSIONS OF OXIDES OF NITROGEN AS NO₂ FROM THE COMBINED TURBINE AND DUCT BURNER EXHAUST SHALL NOT EXCEED 21 PPMV, CALCULATED DRY, AT 15% OXYGEN.
[RULE 1134]
10. OXIDES OF SULFUR EMISSIONS REPORTED AS SO₂ FROM THIS COGENERATION PERMIT UNIT SHALL NOT EXCEED 2 POUNDS PER DAY WHILE THE TURBINE IS FIRING NATURAL GAS AND 74 POUNDS PER DAY WHILE THE TURBINE IS FIRING DIESEL FUEL. THE COMBINED SO_x EMISSIONS REPORTED AS SO₂ FROM COGENERATION SYSTEM NUMBERS 1 AND 2 SHALL NOT EXCEED 3 POUNDS PER DAY WHILE THE TURBINES ARE FIRING NATURAL GAS AND 136 POUNDS PER DAY WHILE THE TURBINES ARE FIRING DIESEL FUEL.
[RULE 1303(b)(2)-OFFSET]
11. OXIDES OF NITROGEN EMISSIONS REPORTED AS NO₂ FROM THIS COGENERATION PERMIT UNIT SHALL NOT EXCEED 191 POUNDS PER DAY WHILE THE TURBINE IS FIRING NATURAL GAS AND 229 POUNDS PER DAY WHILE THE TURBINE IS FIRING DIESEL FUEL. THE COMBINED NO_x

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EMISSIONS REPORTED AS NO2 FROM COGENERATION SYSTEM NUMBERS 1 AND 2 SHALL NOT EXCEED 282 POUNDS PER DAY WHILE THE TURBINES ARE FIRING NATURAL GAS AND 339 POUNDS PER DAY WHILE THE TURBINES ARE FIRING DIESEL FUEL.
[RULE 1303(b)(2)-OFFSET]

12. CARBON MONOXIDE EMISSIONS FROM THIS COGENERATION PERMIT UNIT SHALL NOT EXCEED 182 POUNDS PER DAY WHILE THE TURBINE IS FIRING NATURAL GAS AND 466 POUNDS PER DAY WHILE THE TURBINE IS FIRING DIESEL FUEL. THE COMBINED CO EMISSIONS FROM COGENERATION SYSTEM NUMBERS 1 AND 2 SHALL NOT EXCEED 211 POUNDS PER DAY WHILE THE TURBINES ARE FIRING NATURAL GAS AND 552 POUNDS PER DAY WHILE THE TURBINES ARE FIRING DIESEL FUEL.
[RULE 1303(b)(2)-OFFSET]
13. ORGANIC EMISSIONS FROM THIS COGENERATION PERMIT UNIT SHALL NOT EXCEED 36 POUNDS PER DAY WHILE THE TURBINE IS FIRING NATURAL GAS AND 36 POUNDS PER DAY WHILE THE TURBINE IS FIRING DIESEL FUEL. THE COMBINED ORGANIC EMISSIONS FROM COGENERATION SYSTEM NUMBERS 1 AND 2 SHALL NOT EXCEED 72 POUNDS PER DAY WHILE THE TURBINES ARE FIRING NATURAL GAS AND 72 POUNDS PER DAY WHILE THE TURBINES ARE FIRING DIESEL FUEL.
[RULE 1303(b)(2)-OFFSET]
14. PARTICULATE EMISSIONS FROM THIS COGENERATION PERMIT UNIT SHALL NOT EXCEED 36 POUNDS PER DAY WHILE THE TURBINE IS FIRING NATURAL GAS AND 62 POUNDS PER DAY WHILE THE TURBINE IS FIRING DIESEL FUEL. THE COMBINED PARTICULATE EMISSIONS FROM COGENERATION SYSTEM NUMBERS 1 AND 2 SHALL NOT EXCEED 72 POUNDS PER DAY WHILE THE TURBINES ARE FIRING NATURAL GAS AND 125 POUNDS PER DAY WHILE THE TURBINES ARE FIRING DIESEL FUEL.
[RULE 1303(b)(2)-OFFSET]
15. DIESEL FUEL MAY BE BURNED IN THE TURBINE ONLY IN THE EVENT OF A NATURAL GAS CURTAILMENT OR IN THE EVENT OF AN EMERGENCY FAILURE OR MAINTENANCE REQUIREMENTS OF THE NATURAL GAS DELIVERY SYSTEM FOR BOILER TESTING WHICH IS NOT TO EXCEED ONE HALF HOUR PER MONTH.
[RULE 1303(b)(2)-OFFSET]
16. DAILY RECORDS OF DIESEL FUEL CONSUMPTION SHALL BE MAINTAINED AND MADE AVAILABLE UPON REQUEST TO DISTRICT PERSONNEL.
[RULE 1303(b)(2)-OFFSET]
17. THE MAXIMUM TOTAL QUANTITY OF NATURAL GAS USED IN ANY ONE HOUR SHALL NOT EXCEED 56530 CUBIC FEET FOR THE GAS TURBINE AND 42110 CUBIC FEET FOR THE DUCT BURNER.
[RULE 1303(b)(2)-OFFSET]
18. THE BOILER REFERENCED IN PERMIT NO. F32184 (A/N 252359) MAY BE IN OPERATION WHEN ONLY ONE OF THE COGENERATION SYSTEMS NO. 1 OR 2 IS OPERATING.
[RULE 1303(b)(2)-OFFSET]
19. WHEN BOTH COGENERATION SYSTEM NOS. 1 AND 2 ARE IN SIMULTANEOUS OPERATION, THE BOILER REFERENCED IN PERMIT NO. F32184 (A/N 252359) CANNOT BE OPERATED.

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[RULE 1303(b)(2)-OFFSET]

20. RECORDS OF DAILY OPERATION OF THE EXISTING BOILERS AND THE COGENERATION SYSTEMS SHALL BE MAINTAINED BY LOMA LINDA UNIVERSITY AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
[RULE 1303(b)(2)-OFFSET]

Periodic Monitoring:

21. THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE CO EMISSION LIMIT(S) EITHER BY:
(a) CONDUCTING A SOURCE TEST AT LEAST ONCE EVERY FIVE YEARS USING AQMD METHOD 100.1 OR 10.1; OR (b) CONDUCTING A TEST AT LEAST ANNUALLY USING A PORTABLE ANALYZER AND AQMD-APPROVED TEST METHOD. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH THE EMISSION LIMITS IN CONDITION NO. 11. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.
[RULE 3004 (a)(4)]

22. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSION FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT ON AN ANNUAL BASIS WHENEVER THIS EQUIPMENT IS FIRED ON FUEL OIL FOR TRAINING/TESTING PURPOSE; AND AFTER EVERY 400 CUMULATIVE HOURS OF OPERATION ON DIESEL FUEL OR AFTER EVERY TWO MILLION GALLONS OF DIESEL FUEL COMBUSTED, TO BE COUNTED CUMULATIVELY OVER A FIVE YEAR PERIOD. THE INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE HOUR, THE OPERATOR SHALL EITHER:
- A. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN THE SAME FASHION AS DEVIATIONS ARE REQUIRED TO BE REPORTED IN SECTION K OF THIS PERMIT; OR
- B. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

IN ADDITION, THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- A. STACK OR EMISSION POINT IDENTIFICATION;
B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
C. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
D. VISIBLE EMISSION OBSERVATION RECORD BY A CERTIFIED SMOKE READER.
[RULE 3004 (a)(4)]
23. THE OPERATOR SHALL CONDUCT SOURCE TEST(S) IN ACCORDANCE WITH THE FOLLOWING

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SPECIFICATIONS:

- A. THE TEST SHALL BE CONDUCTED AT LEAST ONCE DURING THE LIFE OF THE PERMIT.
- B. THE TEST SHALL BE CONDUCTED TO DETERMINE THE PARTICULATE EMISSIONS USING EPA METHOD 5.2 MEASURED OVER A 60 MINUTE AVERAGING TIME PERIOD.
- C. THE TEST SHALL BE CONDUCTED TO DEMONSTRATE COMPLIANCE WITH CONDITION NO. 13 (NATURAL GAS ONLY).
[RULE 3004 (a)(4)].

Emissions And Requirements:

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

NOx: 42 PPMV, RULE 1303(a)(1)-BACT
NOx: 21 PPMV, RULE 1134
CO: 2000 PPMV, RULE 407
SOx: 500 PPMV, RULE 407
PM: 0.1 GR/SCF, RULE 409
SOx: 2 LBS/DAY (ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
SOx: 3 LBS/DAY (COMBINED COGEN UNITS 1 &2, ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
SOx: 74 LBS/DAY (ON DIESEL), RULE 1303(b)(2)-OFFSET
SOx: 136 LBS/DAY (COMBINED COGEN UNITS 1 &2, ON DIESEL), RULE 1303(b)(2)-OFFSET
NOx: 191 LBS/DAY (ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
NOx: 282 LBS/DAY (COMBINED COGEN UNITS 1 &2, ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
NOx: 229 LBS/DAY (ON DIESEL), RULE 1303(b)(2)-OFFSET
NOx: 339 LBS/DAY (COMBINED COGEN UNITS 1 &2, ON DIESEL), RULE 1303(b)(2)-OFFSET
CO: 182 LBS/DAY (ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
CO: 211 LBS/DAY (COMBINED COGEN UNITS 1 &2, ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
CO: 466 LBS/DAY (ON DIESEL), RULE 1303(b)(2)-OFFSET
CO: 552 LBS/DAY (COMBINED COGEN UNITS 1 &2, ON DIESEL), RULE 1303(b)(2)-OFFSET
ROG: 36 LBS/DAY (ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
ROG: 72 LBS/DAY (COMBINED COGEN UNITS 1 &2, ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
ROG: 36 LBS/DAY (ON DIESEL), RULE 1303(b)(2)-OFFSET
ROG: 72 LBS/DAY (COMBINED COGEN UNITS 1 &2, ON DIESEL), RULE 1303(b)(2)-OFFSET
PM: 36 LBS/DAY (ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
PM: 72 LBS/DAY (COMBINED COGEN UNITS 1 &2, ON NATURAL GAS), RULE 1303(b)(2)-OFFSET
PM: 62 LBS/DAY (ON DIESEL), RULE 1303(b)(2)-OFFSET
PM: 125 LBS/DAY (COMBINED COGEN UNITS 1 &2, ON DIESEL), RULE 1303(b)(2)-OFFSET
NOx: 150 PPM, 40 CFR60 SUBPART GG
SOx: 150 PPM, 40 CFR60 SUBPART GG

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PERMIT TO CONSTRUCT/OPERATE

Permit No. TBD
A/N 478849

Equipment Description:

CREMATORY, NO. 1, AMERICAN CREMATORY, MODEL A-200HT, WITH A 500,000 BTU PER HOUR, NATURAL GAS FIRED, ECLIPSE THERMJET, MODEL, TJ0050, PRIMARY BURNER, A 1,000,000 BTU PER HOUR, NATURAL GAS FIRED, ECLIPSE THERMJET, MODEL, TJ0100, SECONDARY CHAMBER BURNER, AND A 5 H.P. COMBUSTION AIR BLOWER.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE USED ONLY TO CREMATE HUMAN ANATOMICAL PARTS OR WHOLE BODIES.
[RULE 1303 (b)(2)-OFFSET]
4. THE SECONDARY CHAMBER BURNER SHALL BE USED THROUGHOUT THE PREHEATING AND CREMATION CYCLE.
[RULE 1303 (a)-BACT]
5. A TEMPERATURE OF NOT LESS THAN 1500 DEGREES FAHRENHEIT SHALL BE MAINTAINED IN THE SECONDARY CHAMBER WHEN THE PRIMARY CHAMBER IS IN OPERATION.
[RULE 1303 (a)-BACT]
6. A TEMPERATURE INDICATING AND RECORDING DEVICE SHALL BE INSTALLED AND MAINTAINED IN THE SECONDARY CHAMBER.
[RULE 1303 (a)-BACT]
7. THE TEMPERATURE INDICATING AND RECORDING DEVICE LOCATED IN THE SECONDARY CHAMBER SHALL MEASURE THE TEMPERATURE ON A CONTINUOUS BASIS. THE INSTRUMENT SHALL BE CALIBRATED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS ON AN ANNUAL BASIS.
[RULE 1303 (a)-BACT]
8. THE MAXIMUM THROUGHPUT OF THE CREMATORY SHALL NOT EXCEED 9,167 POUNDS OF ANATOMICAL PARTS AND HUMAN BODIES IN ANY ONE MONTH.
[RULE 1303 (b)(2)-OFFSET, RULE 1401]

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9. THE MAXIMUM NATURAL GAS FUEL USAGE OF THE CREMATORY SHALL NOT EXCEED 130,957 SCF IN ANY ONE MONTH.
[RULE 1303 (b)(2)-OFFSET, RULE 1401]
10. THE OPERATOR SHALL MEASURE AND RECORD THE WEIGHT OF EACH CHARGE OF HUMAN ANATOMICAL PARTS AND BODIES PRIOR TO INCINERATION.
[RULE 1303 (b)(2)-OFFSET, RULE 1401]
11. THE OPERATOR SHALL INSTALL AND MAINTAIN A DEDICATED TOTALIZING FUEL FLOW METER, WITH AN ACCURACY OF +/- 5%, TO CONTINUOUSLY MEASURE THE NATURAL GAS FUEL USAGE BEING SUPPLIED TO THE CREMATORY. THE INSTRUMENT SHALL BE CALIBRATED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS ON AN ANNUAL BASIS. A COMPUTER THAT COLLECTS, SUMS, AND STORES ELECTRONIC DATA FROM CONTINUOUS FUEL FLOW METERS IS AN ACCEPTABLE TOTALIZER. THE TOTALIZING FUEL FLOW METER MUST CONTINUOUSLY OPERATE WHEN THE UNIT IS OPERATING.
[RULE 1303 (b)(2)-OFFSET]
12. THE OPERATOR SHALL KEEP RECORDS IN A MANNER APPROVED BY THE DISTRICT FOR THE FOLLOWING PARAMETERS OR ITEMS:
- A. MASS OF HUMAN ANATOMICAL PARTS AND BODIES INCINERATED.
 - B. NATURAL GAS FUEL USAGE OF THE CREMATORY.
 - C. NAME AND CONTACT INFORMATION OF PERSONNEL OPERATING THE CREMATORY.
 - D. CALIBRATION RECORDS FOR TEMPERATURE AND FUEL FLOW MONITORING DEVICES.
- RECORDS SHALL BE RETAINED FOR A PERIOD OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1303(a)-BACT, RULE 1303 (b)(2)-OFFSET, RULE 1401]

Periodic Monitoring:

13. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON A MONTHLY BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE MONTHLY PERIOD. THE ROUTINE MONTHLY INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE-HOUR, THE OPERATOR SHALL EITHER:
- A. VERIFY AND CERTIFY WITHIN 24 HOURS THAT THE EQUIPMENT CAUSING THE EMISSION AND ANY ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT ARE OPERATING NORMALLY ACCORDING TO THEIR DESIGN AND STANDARD PROCEDURES AND UNDER THE SAME CONDITIONS UNDER WHICH COMPLIANCE WAS ACHIEVED IN THE PAST;
 - B. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN

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- ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT; OR
- C. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- E. STACK OR EMISSION POINT IDENTIFICATION;
- F. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
- G. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
- H. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.
[RULE 3004 (a)(4)]

Emissions And Requirements:

14. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
- PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: 0.1 GR/SCF, RULE 409
PM: 0.1 GR/SCF RULE 473
CO: 2000 PPMV, RULE 407

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PERMIT TO CONSTRUCT/OPERATE

Permit No. TBD
A/N 480890

Equipment Description:

CREMATORY, NO. 2, AMERICAN CREMATORY, MODEL A-200HT, WITH A 500,000 BTU PER HOUR, NATURAL GAS FIRED, ECLIPSE THERMJET, MODEL, TJ0050, PRIMARY BURNER, A 1,000,000 BTU PER HOUR, NATURAL GAS FIRED, ECLIPSE THERMJET, MODEL, TJ0100, SECONDARY CHAMBER BURNER, AND A 5 H.P. COMBUSTION AIR BLOWER.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE USED ONLY TO CREMATE HUMAN ANATOMICAL PARTS OR WHOLE BODIES.
[RULE 1303 (b)(2)-OFFSET]
4. THE SECONDARY CHAMBER BURNER SHALL BE USED THROUGHOUT THE PREHEATING AND CREMATION CYCLE.
[RULE 1303 (a)-BACT]
5. A TEMPERATURE OF NOT LESS THAN 1500 DEGREES FAHRENHEIT SHALL BE MAINTAINED IN THE SECONDARY CHAMBER WHEN THE PRIMARY CHAMBER IS IN OPERATION.
[RULE 1303 (a)-BACT]
6. A TEMPERATURE INDICATING AND RECORDING DEVICE SHALL BE INSTALLED AND MAINTAINED IN THE SECONDARY CHAMBER.
[RULE 1303 (a)-BACT]
7. THE TEMPERATURE INDICATING AND RECORDING DEVICE LOCATED IN THE SECONDARY CHAMBER SHALL MEASURE THE TEMPERATURE ON A CONTINUOUS BASIS. THE INSTRUMENT SHALL BE CALIBRATED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS ON AN ANNUAL BASIS.
[RULE 1303 (a)-BACT]
8. THE MAXIMUM THROUGHPUT OF THE CREMATORY SHALL NOT EXCEED 9,167 POUNDS OF ANATOMICAL PARTS AND HUMAN BODIES IN ANY ONE MONTH.
[RULE 1303 (b)(2)-OFFSET, RULE 1401]

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9. THE MAXIMUM NATURAL GAS FUEL USAGE OF THE CREMATORY SHALL NOT EXCEED 130,957 SCF IN ANY ONE MONTH.
[RULE 1303 (b)(2)-OFFSET, RULE 1401]
10. THE OPERATOR SHALL MEASURE AND RECORD THE WEIGHT OF EACH CHARGE OF HUMAN ANATOMICAL PARTS AND BODIES PRIOR TO INCINERATION.
[RULE 1303 (b)(2)-OFFSET, RULE 1401]
11. THE OPERATOR SHALL INSTALL AND MAINTAIN A DEDICATED TOTALIZING FUEL FLOW METER, WITH AN ACCURACY OF +/- 5%, TO CONTINUOUSLY MEASURE THE NATURAL GAS FUEL USAGE BEING SUPPLIED TO THE CREMATORY. THE INSTRUMENT SHALL BE CALIBRATED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS ON AN ANNUAL BASIS. A COMPUTER THAT COLLECTS, SUMS, AND STORES ELECTRONIC DATA FROM CONTINUOUS FUEL FLOW METERS IS AN ACCEPTABLE TOTALIZER. THE TOTALIZING FUEL FLOW METER MUST CONTINUOUSLY OPERATE WHEN THE UNIT IS OPERATING.
[RULE 1303 (b)(2)-OFFSET]
12. THE OPERATOR SHALL KEEP RECORDS IN A MANNER APPROVED BY THE DISTRICT FOR THE FOLLOWING PARAMETERS OR ITEMS:
 - A. MASS OF HUMAN ANATOMICAL PARTS AND BODIES INCINERATED.
 - B. NATURAL GAS FUEL USAGE OF THE CREMATORY.
 - C. NAME AND CONTACT INFORMATION OF PERSONNEL OPERATING THE CREMATORY.
 - D. CALIBRATION RECORDS FOR TEMPERATURE AND FUEL FLOW MONITORING DEVICES.RECORDS SHALL BE RETAINED FOR A PERIOD OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1303(a)-BACT, RULE 1303 (b)(2)-OFFSET, RULE 1401]

Periodic Monitoring:

13. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON A MONTHLY BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE MONTHLY PERIOD. THE ROUTINE MONTHLY INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE-HOUR, THE OPERATOR SHALL EITHER:
 - A. VERIFY AND CERTIFY WITHIN 24 HOURS THAT THE EQUIPMENT CAUSING THE EMISSION AND ANY ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT ARE OPERATING NORMALLY ACCORDING TO THEIR DESIGN AND STANDARD PROCEDURES AND UNDER THE SAME CONDITIONS UNDER WHICH COMPLIANCE WAS ACHIEVED IN THE PAST;
 - B. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN

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ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT; OR

- C. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- D. STACK OR EMISSION POINT IDENTIFICATION;
E. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
F. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
G. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: 0.1 GR/SCF, RULE 409
PM: 0.1 GR/SCF RULE 473
CO: 2000 PPMV, RULE 407

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PERMIT TO CONSTRUCT/OPERATE

Permit No. TBD
A/N 494678

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL C-27, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION, 12 CYCLINDERS, TURBOCHARGED, AFTERCOOLED, RATED AT 998 BHP, EQUIPPED WITH A DIESEL PARTICULATE FILTER, CLEANAIR SYSTEMS, MODEL PERMIT, AND A BACKPRESSURE MONITOR, DATA LOGGER AND ALARM SYSTEM.

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 MORE THAN A TOTAL OF 200 HOURS IN ANY ONE YEAR WHICH INCLUDES NO MORE THAN 50 HOURS FOR MAINTENANCE AND PERFORMANCE TESTING.
[RULE 1304(a)-MODELING, RULE 1110.2, RULE 1470]
4. ENGINE OPERATION FOR MAINTENANCE AND TESTING PURPOSES SHALL NOT EXCEED 4.2 HOURS IN ANY ONE MONTH.
[RULE 1303(b)(2)-OFFSET]
5. OPERATION 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 UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
6. THE ENGINE SHALL NOT BE OPERATED FOR NON-EMERGENCY USE BETWEEN THE HOURS OF 7:30 A.M. AND 3:30 P.M. ON DAYS WHEN SCHOOL IS IN SESSION.
[RULE 1470]

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7. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS ITS EXHAUST IS VENTED TO A DIESEL PARTICULATE FILTER SYSTEM WHICH IS IN FULL OPERATION AND IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 1470]
8. THIS ENGINE SHALL NOT BE OPERATED IN IDLE MODE FOR MORE THAN 240 CONSECUTIVE MINUTES.
[RULE 1470]
9. THE OPERATOR SHALL INSTALL A BACKPRESSURE AND TEMPERATURE MONITOR AND ALARM SYSTEM THAT CONTINUOUSLY RECORDS AND DATA LOGS THE TEMPERATURE AND BACKPRESSURE OF THE EXHAUST AS WELL AS DATE AND TIME OF EQUIPMENT OPERATION.
[RULE 1470]
10. THE BACKPRESSURE AND TEMPERATURE MONITOR AND ALARM SYSTEM SHALL BE PROGRAMMED TO INTERFACE WITH THE ENGINE CONTROL SYSTEM TO AUTOMATICALLY SHUT THE ENGINE DOWN WHENEVER THE BACKPRESSURE EXCEEDS THE MAXIMUM BACKPRESSURE SETTING SPECIFIED BY THE FILTER MANUFACTURER.
[RULE 1470]
11. THE ALARM SYSTEM SHALL BE CAPABLE OF NOTIFYING THE OPERATOR WHEN HIGH BACKPRESSURE IS APPROACHED THROUGH VISUAL WARNING LIGHTS, SOUNDING AN AUDIBLE ALARM, OR BE SENDING A REMOTE ALARM SIGNAL TO THE OPERATOR.
[RULE 1470]
12. THE OPERATOR SHALL REGENERATE THE DIESEL PARTICULATE FILTER AFTER EVERY 10 COLD START-UPS OR WHENEVER THE BACKPRESSURE MONITOR AND ALARM SYSTEM DISPLAYS A WARNING SIGNAL, SOUNDS AN AUDIBLE ALARM, OR SENDS A REMOTE ALARM SIGNAL TO THE OPERATOR. IN ORDER TO ACHIEVE FILTER REGENERATION, THE OPERATOR SHALL RUN THE ENGINE UNTIL THE EXHAUST TEMPERATURE EXCEEDS 300 DEGREES CELSIUS (572 DEGREES FAHRENHEIT) OR ABOVE 40% LOAD UNTIL THE BACKPRESSURE MONITORING SYSTEM INDICATES A NORMAL BACKPRESSURE READING.
[RULE 1470]
13. THE OPERATOR SHALL KEEP RECORDS IN A MANNER APPROVED BY THE DISTRICT FOR THE FOLLOWING PARAMETERS OR ITEMS:
 - A. DATA COLLECTED FROM THE DATA LOGGER THAT INCLUDES THE BACKPRESSURE IN INCHES OF WATER COLUMN, TEMPERATURE IN FAHRENHEIT AND THE DATE AND TIME OF ENGINE OPERATION
 - B. BACKPRESSURE SET POINTS USED TO PROGRAM THE BACKPRESSURE MONITOR AND ALARM SYSTEM
 - C. DATE AND TIME CATALYST CLEANING OR REPLACEMENT

RECORDS SHALL BE RETAINED FOR A PERIOD OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1470]

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14. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH SHALL ON A MONTHLY BASIS INCLUDE MANUAL AND AUTOMATIC OPERATION AND SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
- A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]

15. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR GRID OPERATOR.
[RULE 1303(a)-BACT]
16. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE RECORDKEEPING, REPORTING AND MONITORING REQUIREMENTS OF RULE 1470.
[RULE 1470]

Periodic Monitoring:

17. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (a)(4)]

Emissions And Requirements:

18. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
- NO_x+NMHC: 4.8 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
 - CO: 2.6 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
 - PM: 0.15 GRAM/BHP-HR, RULE 1303(a)(1)-BACT
 - PM: 0.01 GRAM/BHP-HR, RULE 1470
 - PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

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PERMIT TO CONSTRUCT/OPERATE

Permit No. TBD
A/N 494679

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL C-9, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION, 6 CYLINDERS, TURBOCHARGED, AFTERCOOLED, RATED AT 398 BHP.

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 MORE THAN A TOTAL OF 200 HOURS IN ANY ONE YEAR WHICH INCLUDES NO MORE THAN 50 HOURS FOR MAINTENANCE AND PERFORMANCE TESTING.
[RULE 1304(a)-MODELING, RULE 1110.2, RULE 1470]
4. ENGINE OPERATION FOR MAINTENANCE AND TESTING PURPOSES SHALL NOT EXCEED 4.2 HOURS IN ANY ONE MONTH.
[RULE 1303(b)(2)-OFFSET]
5. OPERATION 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 UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
6. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH SHALL ON A MONTHLY BASIS INCLUDE MANUAL AND AUTOMATIC OPERATION AND SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS

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C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]

7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR GRID OPERATOR.
[RULE 1303(a)-BACT]
8. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE RECORDKEEPING, REPORTING AND MONITORING REQUIREMENTS OF RULE 1470.
[RULE 1470]

Periodic Monitoring:

9. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (a)(4)]

Emissions And Requirements:

10. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
NO_x+NMHC: 3.0 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
CO: 2.6 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
PM: 0.15 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
PM: 0.15 GRAMS/BHP-HR, RULE 1470
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

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RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS.

Periodic Monitoring:

1. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):

FOR ARCHITECTURAL APPLICATIONS WHERE NO THINNERS, REDUCERS, OR OTHER VOC CONTAINING MATERIALS ARE ADDED, MAINTAIN SEMI-ANNUAL RECORDS OF ALL COATINGS CONSISTING OF (a) COATING TYPE, (b) VOC CONTENT AS SUPPLIED IN GRAMS PER LITER (g/l) OF MATERIALS FOR LOW-SOLIDS COATINGS, (c) VOC CONTENT AS SUPPLIED IN g/l OF COATING, LESS WATER AND EXEMPT SOLVENT, FOR OTHER COATING.

FOR OTHER ARCHITECTURAL APPLICATIONS WHERE THINNERS, REDUCERS, OR OTHER VOC CONTAINING MATERIALS ARE ADDED, MAINTAIN DAILY RECORDS FOR EACH COATING CONSISTING OF (a) COATING TYPE, (b) VOC CONTENT AS APPLIED IN GRAMS PER LITER (g/l) OF MATERIALS USED FOR LOW-SOLIDS COATINGS, (c) VOC CONTENT AS APPLIED IN g/l OF COATING, LESS WATER AND EXEMPT SOLVENT, FOR OTHER COATING.

[RULE 3004 (a) (4)]

Emissions And Requirements:

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

VOC: RULE 1113, SEE APPENDIX B FOR EMISSION LIMITS
VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS

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RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, LOW USE OR EMISSIONS

Emissions And Requirements:

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

VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS
VOC: RULE 1107, SEE APPENDIX B FOR EMISSION LIMITS
VOC: RULE 1136, SEE APPENDIX B FOR EMISSION LIMITS
VOC: RULE 109
PM: RULE 481

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RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, SPRAY COATING ENCLOSURES, < 8 FT3 INTERNAL VOLUME.

Emissions And Requirements:

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

VOC:	RULE 1107 SEE APPENDIX B FOR EMISSION LIMITS
VOC:	RULE 1136, SEE APPENDIX B FOR EMISSION LIMITS
VOC:	RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS
PM:	RULE 481

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RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, REFRIGERATION UNITS

Emissions And Requirements:

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

REFRIGERANT: RULE 1415

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RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, REFRIGERANT RECOVERY AND/OR RECYCLING UNITS.

Emissions And Requirements:

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

REFRIGERANT: RULE 1415

**FACILITY PERMIT TO OPERATE
LOMA LINDA UNIV**

RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, FIRE EXTINGUISHING EQUIPMENT

Emissions And Requirements:

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

HALON: RULE 1418

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ENGINEERING EVALUATION FOR TITLE V DE MINIMIS PERMIT REVISION

COMPANY NAME AND ADDRESS

Loma Linda University
25027 Mound Street
Loma Linda, CA 92354

CONTACT: Henry Cairus, EH&S, (909) 558-4999

EQUIPMENT LOCATION

AQMD ID 800234
11100 Anderson Street
Loma Linda, CA 92354

EQUIPMENT DESCRIPTION

A/N 478849 (MASTER)

CREMATORY, NO. 1, AMERICAN CREMATORY, MODEL A-200HT, WITH A 500,000 BTU PER HOUR, NATURAL GAS FIRED, ECLIPSE THERMJET, MODEL, TJ0050, PRIMARY BURNER, A 1,000,000 BTU PER HOUR, NATURAL GAS FIRED, ECLIPSE THERMJET, MODEL, TJ0100, SECONDARY CHAMBER BURNER, AND A 5 H.P. COMBUSTION AIR BLOWER.

A/N 480890

CREMATORY, NO. 2, AMERICAN CREMATORY, MODEL A-200HT, WITH A 500,000 BTU PER HOUR, NATURAL GAS FIRED, ECLIPSE THERMJET, MODEL, TJ0050, PRIMARY BURNER, A 1,000,000 BTU PER HOUR, NATURAL GAS FIRED, ECLIPSE THERMJET, MODEL, TJ0100, SECONDARY CHAMBER BURNER, AND A 5 H.P. COMBUSTION AIR BLOWER.

A/N 494678

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL C-27, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION, 12 CYCLINDERS, TURBOCHARGED, AFTERCOOLED, RATED AT 998 BHP, EQUIPPED WITH A DIESEL PARTICULATE FILTER, CLEANAIR SYSTEMS, MODEL PERMIT, AND A BACKPRESSURE MONITOR, DATA LOGGER AND ALARM SYSTEM.

A/N 494679

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL C-9, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION, 6 CYCLINDERS, TURBOCHARGED, AFTERCOOLED, RATED AT 398 BHP.

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BACKGROUND/SUMMARY

Loma Linda University (LLU) is a teaching hospital that submitted applications to amend their Title V operating permit. Table 1 summarizes the applications that were submitted by LLU.

Table 1 Application Summary

A/N	Equipment	Submittal Date	Deemed Complete	BCAT/CCAT	Schedule	Filing Fees
478849	Crematory	2/29/08	7/25/08	183	C	\$2,949.92
480890	Crematory	4/10/08	7/25/08	183	C	\$1,474.96 ^(a)
494678	ICE (>500 bhp) Em Elec Gen Diesel	2/17/09	4/2/09	043902	B	\$2,501.52
494679	ICE (50-500 bhp) Em Elec Gen Diesel	2/17/09	4/2/09	043901	B	\$2,501.52
495538	TV De minimis Permit Revision	1/6/09	5/15/09	555009	-	\$843.80
Total						\$10,271.72

^(a) The crematories are identical; therefore, a 50% reduction in filing fees applies per Rule 301.

These applications are for the following:

- Install two (2) crematories at the new Centennial Complex that will replace an existing crematory located at another location on campus
- Install one (1) emergency diesel engine to replace an existing diesel engine for a water pump located 200 feet east of Anderson Street between the San Timoteo wash.
- Install one (1) emergency diesel engine at the new Centennial Complex

LLU is in the midst of completing construction activities on their new Centennial Complex, which will house the anatomy department, clinical skills and assessment center, medical simulation center, teaching amphitheatres, laboratories, and classrooms. It is anticipated that the new complex will be ready for student and faculty occupancy the beginning of the fall 2009 school year.

The completion of the engineering analysis for this project was initially delayed pending the submittal of additional fees, applications and information required to continue permit processing. During the permit processing stage, a court decision was issued by Los Angeles Superior Court Judge Ann I Jones, in response to a lawsuit filed by a number of environmental organizations against AQMD, that invalidated Rules 1315 and 1309.1 until the District prepares and distributes a new CEQA document. For the interim, the District enters into a permit moratorium that prevents the issuance of permits that rely on emission offset exemptions from Rules 1309.1 or 1304. LLU is a university medical center that meets the definition of an essential public service per Rule 1302(m) and would have qualified for internal offsets. In addition, the emergency engines would also have been exempt from having to provide offsets per Rule 1304(a)(4). However, as a result of the court decision, any permit application that has an increase in emissions over 0.5 lb/day on a 30 day average must provide offsets obtained on the open market in the form of emissions reduction credits (ERCs). The moratorium informational letter that was sent to all facilities stated that facilities would have to wait up to 12 months or more until the District completes CEQA per the judge's court order. However, LLU was in no position to wait; therefore, they went ahead and purchased the required ERCs. The specific applications are discussed in more detail in the sections that follow.

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Crematories – A/N 478849 & 480890

LLU is proposing to install two (2) new identical crematory retorts that will replace an existing crematory (permit no. 10158B). The existing unit is located at Shyrock Hall – directly across Stewart Street from the proposed site of the Centennial Complex that will house the two new units. Figure 1 shows the site for the proposed new complex.

The type of crematory proposed is a multiple chamber incinerator; two chambers namely primary and secondary. The secondary chamber will be heated first by igniting the afterburner to an operating temperature of 1600°F. The secondary chamber is first preheated to ensure any gases from the human remains in the primary chamber are completely combusted. A cremation case charge (human remains and/or parts enclosed in a cardboard casket or body bag) is introduced into the primary chamber on the hearth that allows for maximum exposure to the primary burner's flame. The charge door is closed and the control timers are set and the power switch is activated; low fire ignition burner of the primary chamber is activated. Following approximately 30 minutes of operation, the high fire cremation burner in the primary chamber commences a controlled cycling range of 1750 to 1800°F. Cycling continues up until the completion of the cremation process, which varies according to charge weight.

The emissions from the crematory retorts will be from natural gas combustion as well as from the incineration of human remains and anatomical parts, which generate ROG emissions. Minute quantities of toxic emissions will also be generated from the equipment. It is unlikely that any odors will be generated with a proper operating modern crematory retort, as the combined design of the primary and secondary burners account for sufficient temperature, turbulence and residence time.

The new crematories are identical American Crematory models each rated at 1.5 MMBtu/hr. The existing crematory at Shyrock Hall is also rated at 1.5 MMBtu/hr. The new crematories will be conditioned with monthly limits for natural gas usage in scf and the amount of cadavers that will be incinerated in pounds to ensure compliance with Rule 1303(b)(2) – Offsets and Rule 1401 – New Source Review for Toxics.

Emergency Diesel ICE Water Well – A/N 494678

LLU has an existing engine (permit no. D71177) located at 200 feet east of Anderson Street between the San Timoteo Creek that is used for emergency flood control. The existing engine is located within 100 meters from a school. Rule 1470 requires that existing engines located at close proximity to schools or school grounds be retrofitted to reduce the PM emission rate. LLU decided that the engine will be replaced to comply with the rule.

The new engine is a 998 bhp, tier 2 model and has a certified equipment permit registration from the District – A/N 459146 valid until 12/31/10. The engine drives an emergency generator, which will in turn provide electricity for a pump. Since the unit will be located at a Title V facility and will require a Rule 212 public notice, the application is being processed in Team J and not in the District Area sources division.

The engine will be installed with a CleanAIR Systems passive diesel particulate filter (DPF) and a data logger and alarm system that will monitor and record the temperature and backpressure of the exhaust. This particular DPF has been verified with the California Air Resources Board as a level 3 control device for stationary diesel engine applications. Level 3 verification means that the DPF can capture and remove at least 85% of particulate emissions, which will allow the new engine to comply with Rule

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1470 requirements in which engines located within 100 meters from a school must have a PM emission rate of 0.01 g/bhp-hr and less.

Emergency Diesel ICE at Centennial Complex – A/N 494679

LLU is also proposing to install an emergency stand-by diesel generator at the Centennial Complex used for back-up power. The engine is tier 3 and is rated at 398 bhp and it has a certified equipment permit – A/N 455162. Since the engine will be installed at a Title V facility, the application will be processed by Team J and not Area Sources.

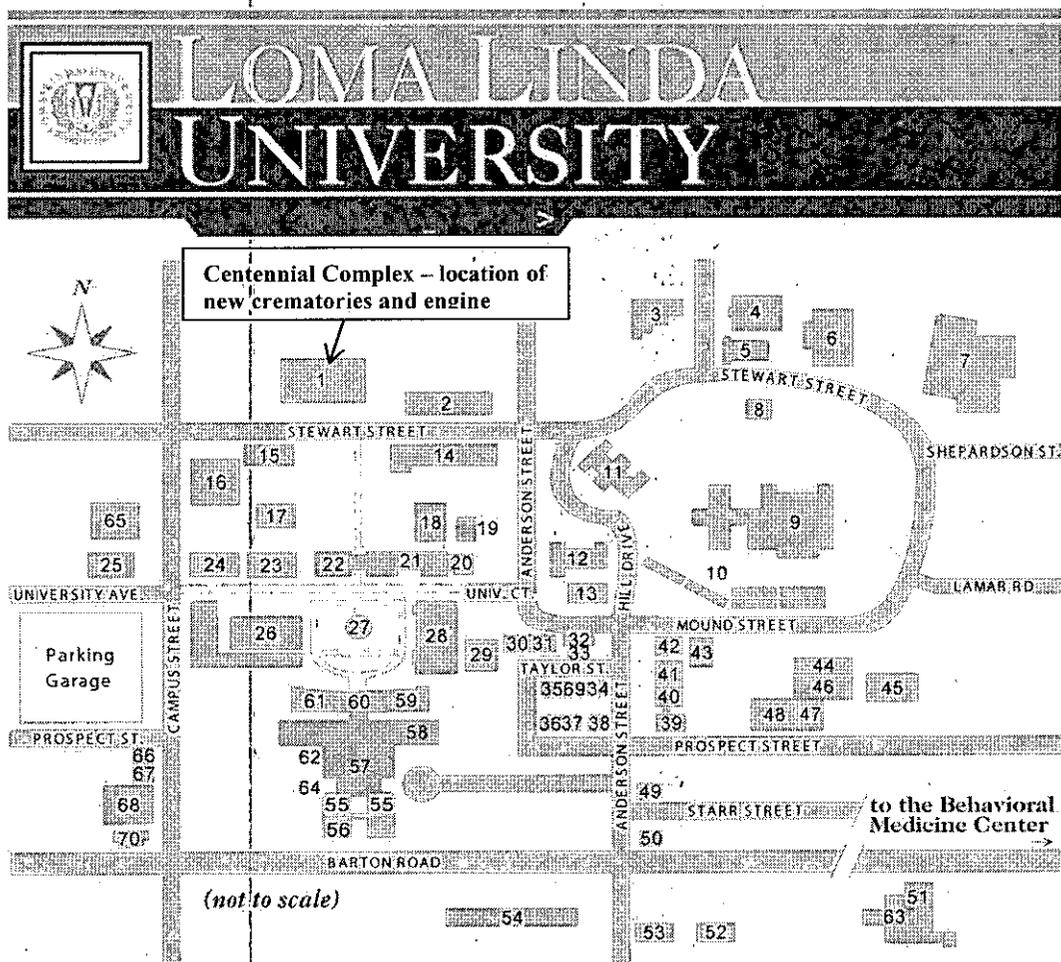


Figure 1. Loma Linda University plot plan showing the proposed site of the Centennial Complex (image from Loma Linda University website– www.llu.edu/map/)

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COMPLIANCE REVIEW

A review of the compliance database reveals that a Notice of Violation (NOV) P53827 was issued to the facility on 1/30/09 for a violation commencing 5/15/06, for failure to certify CEMS by 5/14/06. Please refer to project file for a detailed description of the Inspector's report. LLU plans to install new CEMS that will comply with District requirements. The facility and their attorneys are currently in consultation with District source testing, enforcement and legal staff to resolve the CEMS issue. Enforcement is tracking the compliance status of LLU.

EMISSION CALCULATIONS

Crematories – A/N 478849 & 480890

Table 2 Data and Assumptions

Parameter	Value	Unit	Source
Rating	1.5	MMBtu/hr	manufacturer
Cremation Rate	100	lbs-parts/hr	manufacturer
Monthly Limit	9167	lbs-parts/mo	maximum allowed per Rule 1401
Schedule	91.67	hrs/month	calculated as amount of cadavers divided by cremation rate
	10	hrs/day	applicant

Table 3 Emission Rates of Natural Gas Combustion for Crematory

Pollutant	EF (lb/MMscf) ^(a)	Heat Input (MMscf/hr)	Mass Emission Rates			30-Day	Cumulative 30-Day
			lb/hr ^(b)	lb/day ^(c)	lb/yr ^(d)		
NOx	130.00	0.00143	0.19	1.86	204	0.57	1.13
SOx	0.67	0.00143	0.00	0.01	1	0.00	0.01
PM10	7.50	0.00143	0.01	0.11	12	0.03	0.07
CO	35.00	0.00143	0.05	0.50	55	0.15	0.31
ROG	7.00	0.00143	0.01	0.10	11	0.03	0.06

^(a) AQMD Default emission factors

^(b) Emission Rate (lb/hr) = EF (lb/MMscf) x Heat Input (MMscf/hr)

^(c) Emission Rate (lb/day) = Emission Rate (lb/hr) x Schedule (hrs/day)

^(d) Emission Rate (lb/yr) = Emission Rate (lb/hr) x Schedule (hrs/month) x 12 months/year

Table 4 ROG Emissions from Human Remains Cremation and Natural Gas Combustion

Pollutant	EF (lb-ROG/ton) ^(a)	Limit (lbs/month)	Mass Emission Rates			30-Day ^(e)	Cumulative 30-Day
			lb/hr ^(b)	lb/day ^(c)	lb/yr ^(d)		
ROG	2	9167	0.10	1.00	110	0.31	0.61
Total ROG ^(f)	-	-	-	-	-	0.34	0.67

^(a) Default emission factor - SCAQMD Mechanical Permit Processing Team

^(b) Emission Rate (lb/hr) = EF (lb/ton)/2000 x Cremation Rate (lbs-parts/hr)

^(c) Emission Rate (lb/day) = Emission Rate (lb/hr) x Schedule (hrs/day)

^(d) Emission Rate (lb/yr) = EF (lb/ton)/2000 x Limit (lbs/mo) x 12 (mos/yr)

^(e) 30-Day = EF (lb/ton)/2000 x Limit (lbs/mo) ÷ 30 (days/mo)

^(f) Total ROG is the combination of human remains cremation and natural gas combustion from Table 3

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Emergency Diesel ICE Water Well – A/N 494678

Table 5 Data for Diesel Engine at Water Well

Parameter	Value	Unit	Source
Rating	998	bhp	Manufacturer
Schedule	4.2	hrs/mo	Applicant
	50	hrs/yr	
NOx	< 3.99	g/bhp-hr	Manufacturer, CEP # 459146
SOx	< 0.0049	g/bhp-hr	Mass balance – 15 ppm-S diesel
PM ^(a)	< 0.009	g/bhp-hr	Manufacturer, CEP # 459146
CO	< 0.75	g/bhp-hr	Manufacturer, CEP # 459146
ROG	< 0.12	g/bhp-hr	Manufacturer, CEP # 459146

^(a)PM emission factor accounts for 85% reduction with a CARB verified DPF

Table 6 Emission Rates for ICE at Water Well

Pollutant	lb/hr ^(a)	lb/yr ^(b)	30-day ^(c)
NOx	< 8.78	439	< 1.23
SOx	< 0.01	1	0.00
PM10 ^(d)	< 0.02	1	0.00
CO	< 1.65	83	< 0.23
ROG	< 0.26	13	0.04

^(a) Emission Rate (lb/hr) = Engine Rating (bhp) x EF (g/bhp-hr) = 453.6 g/lb

^(b) Emission Rate (lb/yr) = Rate (lb/hr) x Schedule (hrs/yr)

^(c) 30-Day = Rate (lb/hr) x Schedule (hrs/mo)

^(d) PM assumed to be all PM10

Emergency Diesel ICE at Centennial Complex – A/N 494679

Table 7 Data for Diesel Engine at Centennial Complex

Parameter	Value	Unit	Source
Rating	398	bhp	Manufacturer
Schedule	4.2	hrs/mo	Applicant
	50	hrs/yr	
NOx	< 2.49	g/bhp-hr	Manufacturer, CEP # 455162
SOx	< 0.0049	g/bhp-hr	Mass balance – 15 ppm-S diesel
PM	< 0.11	g/bhp-hr	Manufacturer, CEP # 455162
CO	< 2.31	g/bhp-hr	Manufacturer, CEP # 455162
ROG	< 0.27	g/bhp-hr	Manufacturer, CEP # 455162

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Table 8 Emission Rates for ICE at Centennial Complex

Pollutant	lb/hr ^(a)	lb/yr ^(b)	30-day ^(c)
NO _x	2.18	109	0.31
SO _x	0.00	0	0.00
PM10 ^(d)	0.10	5	0.01
CO	2.03	101	0.28
ROG	0.24	12	0.03

^(a) Emission Rate (lb/hr) = Engine Rating (bhp) x EF (g/bhp-hr) ÷ 453.6 g/lb

^(b) Emission Rate (lb/yr) = Rate (lb/hr) x Schedule (hrs/yr)

^(c) 30-Day = Rate (lb/hr) x Schedule (hrs/mo)

^(d) PM assumed to be all PM10

RULES EVALUATION

RULE 212-STANDARDS FOR APPROVING PERMITS AND ISSUING PUBLIC NOTICES

Rule 212 requires that a person shall not build, erect, install, alter, or replace any equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants without first obtaining written authorization for such construction from the Executive Officer. Rule 212(c) states that a project requires written notification if there is an emission increase for ANY criteria pollutant in excess of the daily maximums specified in Rule 212(g), if the equipment is located within 1,000 feet of the outer boundary of a school, or if the MICR is equal to or greater than one in a million (1×10^6) during a lifetime (70 years) for facilities with more than one permitted unit, source under Regulation XX, or equipment under Regulation XXX, unless the applicant demonstrates to the satisfaction of the Executive Officer that the total facility-wide maximum individual cancer risk is below ten in a million (10×10^6) using the risk assessment procedures and toxic air contaminants specified under Rule 1402; or, ten in a million (10×10^6) during a lifetime (70 years) for facilities with a single permitted unit, source under Regulation XX, or equipment under Regulation XXX.

FACILITY / EQUIPMENT AND SCHOOL LOCATIONS

The closest kindergarten to grade 12 school located near the proposed equipment at the Centennial Complex is 0.4 miles away as determined by Google Maps (<http://maps.google.com/maps>). Table 9 summarizes the name, location and proximity of the nearby schools.

Table 9 K-12 Schools Near Proposed Crematories and Engine at Centennial Complex

Name of School	Address	Approximate Distance in miles (ft)
Loma Linda Academy	10656 Anderson Street, Loma Linda	0.4 (2,112)
Loma Linda Children's Center Kindergarten	25228 Shepardson Drive, Loma Linda	0.5 (2,640)
La Petite Academy	855 E Hospitality Lane, San Bernardino	1.0 (5,280)
Reche Canyon Elementary School	3101, Canyon Vista Drive, Colton	1.3 (6,864)
Victoria Elementary School	1505 Richardson Street, San Bernardino	1.5 (7,920)

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However, LLU stated the engine to be located at the water well near Anderson and the San Timoteo Creek is within 100 meters from Loma Linda Academy, a public notice will be required for this engine per section (c)(1).

DAILY EMISSIONS

Table 10 shows that the daily emissions do not exceed the daily thresholds of Rule 212(g); therefore, a public notice is not required for section (c)(2).

Table 10 Daily Emissions

Pollutant	Total Daily Emissions	R212(g) Daily Threshold	Public Notice triggered?
NOx	✓ 14.67	40	No
SOx	✓ 0.03	60	No
PM10	✓ 0.34	30	No
CO	✓ 4.67	220	No
ROG	✓ 1.85	30	No

MAXIMUM INDIVIDUAL CANCER RISK (MICR)

The total MICR is less than 1×10^{-6} , as shown in the discussion under the Regulation XIV section; therefore, a public notice is not required for section (c)(3).

RULE 401 - VISIBLE EMISSIONS

This rule limits visible emissions to an opacity of less than 20 percent (Ringlemann No.1), as published by the United States Bureau of Mines. It is unlikely, with the proper operation of the equipment in accordance with the manufacturer's guidelines that there will be visible emissions. However, in the unlikely event that visible emissions do occur, anything greater than 20 percent opacity is not expected to last for greater than 3 minutes. During normal operation, no visible emissions are expected. Therefore, compliance with this rule is expected.

RULE 402 - NUISANCE

This rule requires that a person not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which cause, or have a natural tendency to cause injury or damage to business or property.

According to the manufacturer, odor may be emitted from the stack after the cremation process has taken place, due to grease left in the refractory that has not been properly burned off. This problem can be corrected by leaving the afterburner and main burner on to burn off any grease. The problem occurs when the unit is turned off before cremation process is complete. The manufacturer states that personnel that are trained and certified to operate the equipment are able to prevent this occurrence. The proper operation of the crematory retorts according to the manufacturer's guidelines is not expected to create any nuisance issues. Therefore, compliance with Rule 402 is expected.

RULE 403 - FUGITIVE DUST

The purpose of this rule is to reduce the amount of particulate matter entrained in the ambient air as a result of man-made fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. The provisions of this rule apply to any activity or man-made condition capable of

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generating fugitive dust. This rule prohibits emissions of fugitive dust beyond the property line of the emission source. The installation and operation of the crematory retorts and emergency engines are expected to comply with this rule.

RULE 404 – PARTICULATE MATTER - CONCENTRATION

The purpose of the rule is to prohibit the discharge into the atmosphere of particulate matter in excess of the concentrations shown in Table 404(a). The results below demonstrate that crematory retorts will comply with the concentration limits of this rule.

$$\begin{aligned} \text{Stack flow (scf/hr)} &= Fd \times 20.9 / (20.9 - O_2\%) \times \text{TFD} \\ Fd &= 8710 \text{ dscf/MMBtu} \\ O_2 &= 3\% \\ \text{TFD} &= 1.5 \text{ MMBtu/hr} \end{aligned}$$

Therefore,

$$\text{Stack Flow (scf/hr)} = 8710 \times 20.9 / (20.9 - 3) \times 1.5 = 15255 \text{ scf/hr}$$

$$\begin{aligned} \text{Combustion Particulate (gr/scf)} &= \text{PM}_{10} \text{ (lb/hr)} \div \text{Stack Flow (scf/hr)} \times 7000 \text{ (gr/dscf)} \\ &= 0.01 \div 15255 \times 7000 \\ &= \mathbf{0.005 \text{ gr/scf}} \end{aligned}$$

The estimated particulate concentration of 0.005 gr/scf complies with the 0.196 gr/scf limit shown in table 404(a). Therefore, compliance is expected.

RULE 405 – SOLID PARTICULATE MATTER - WEIGHT

The purpose of the rule is to prohibit the discharge into the atmosphere of particulate matter in excess of the rates shown in Table 405(a). The crematory retorts have a capacity of 100 lbs/hr. The particulate emissions taken from table 5 are 0.01 lbs/hr, which is much less than the 0.99 lb/hr limit shown in table 405(a). Therefore, compliance is expected.

RULE 407 – LIQUID AND GASEOUS AIR CONTAMINANTS

This rule limits CO emissions to 2,000 ppmvd and SO₂ emissions to 500 ppmvd, averaged over 15 minutes. For natural gas combustion, the CO emissions are expected to be 45 ppmvd @ 3% O₂. For SO₂, equipment which complies with Rule 431.1 is exempt from the SO₂ limit in Rule 407. The applicant will be required to comply with Rule 431.1 and thus the SO₂ limit in Rule 407 will not apply. Compliance with this rule is expected. This rule is not applicable to the engines.

RULE 409 – COMBUSTION CONTAMINANTS

This rule restricts the discharge of contaminants from the combustion of fuel to 0.1 grain per cubic foot of gas, calculated to 12% CO₂, averaged over 15 minutes. A Model A-200HT was source tested on 5/28/03 under the jurisdiction of the Sacramento Air Quality Management District. The source test was conducted for PM concentration and was done in triplicate using ARB and EPA methods. The average was 0.031 gr/dscf corrected to 12% CO₂ (a copy of the report is in the project file). Therefore, compliance is expected. This rule is not applicable to the engines.

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RULE 431.1-SULFUR CONTENT OF GASEOUS FUELS

The crematory retorts will use pipeline quality natural gas which will comply with the 16 ppm sulfur limit, calculated as H₂S, specified in this rule. Natural gas will be supplied by the Southern California Gas Company which has a H₂S content of less 0.25 gr/100scf, which is equivalent to a concentration of about 4 ppm. Compliance is expected. The applicant will comply with the reporting and record keeping requirements as outlined in subdivision (e) of this Rule.

RULE 431.2-SULFUR CONTENT OF LIQUID FUELS

The engines will use diesel fuel that has a sulfur content of less than 15 ppm by weight. The permit will be conditioned to comply with the requirements of this rule. Therefore, compliance is expected.

RULE 473-DISPOSAL OF SOLID AND LIQUID WASTES

As discussed under the Rule 409 section, the PM concentration is expected to be less than the 0.1 grain per cubic foot of gas limit of this rule. Therefore, compliance is expected.

RULE 1147 – NOX REDUCTIONS FROM MISCELLANEOUS SOURCES

The purpose of the rule is to reduce nitrogen oxide emissions from gaseous and liquid fuel fired combustion equipment as defined in this rule. The rule applies to crematories.

Section (c)(1) of the rule states that “on or after January 1, 2010 any person owning or operating a unit subject to this rule shall not operate the unit in a manner that exceeds the applicable nitrogen oxide emission limit specified in Table 1 (of the rule) at the time a District permit is required for the operation of a new, relocated or modified unit or, for in-use units, in accordance with the compliance schedule in Table 2 (of the rule), or at the time of a combustion modification”.

The crematories proposed by LLU will operate above 1200 °F and will therefore be subject to 60 ppm (@ 3% O₂) or 0.073 lb/MMBtu by July 1 of the year the units are 15 years old. LLU submitted source test information for an identical unit operating in Ventura, California that showed the NO_x emissions to be 91 ppmv @ 3% O₂ (equivalent to 0.110 lb/MMBtu and 116 lb/MMscf). Therefore, LLU will be required to track the age of the units in order to comply with the compliance limits when they become applicable to these units, so they may be retrofitted.

NEW SOURCE REVIEW (NSR)

The following section describes the NSR analysis for this project and it will be evaluated for compliance with the rules in the table below.

Table 11 Applicable NSR Rules

Applicable NSR Rules (NO_x, SO_x, PM₁₀, CO & VOC)
Rule 1303(a) - BACT
Rule 1303(b)(1) - Modeling
Rule 1303(b)(2) - Offsets
Rule 1303(b)(3) - Sensitive Zone Requirements
Rule 1303(b)(4) - Facilitywide Compliance
Rule 1303(b)(5) - Major Polluting Facilities
Rule 1703 (a)(2) - BACT for NO _x and CO

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RULE 1303(a) – BACT

These rules state that the Executive Officer shall deny the Permit to Construct for any new source which results in an emission increase of any non-attainment air contaminant, any ozone depleting compound, or ammonia unless the applicant can demonstrate that BACT is employed for the new source. The addition of the new equipment at this existing facility will result in an increase in emissions; therefore, BACT requirements are applicable.

A survey of BACT determinations¹ for crematories is summarized in table 12 along with a comparison to the proposed crematories to be installed at LLU. The proposed crematories meet District BACT requirements.

Table 12 Achieved in Practice BACT Requirements for Crematories

Pollutant	SCAQMD BACT	BAAQMD BACT	SJVAPCD BACT	LLU Proposal	Complies?
NOx	Natural Gas	Natural Gas Firing	Natural Gas Fuel	Natural Gas	Yes
CO		Secondary Combustion Chamber, ≥ 1500 °F		Secondary Combustion Chamber, ≥ 1600 °F	Yes
VOC	Secondary Combustion Chamber, ≥ 1500 °F	Secondary Combustion Chamber, ≥ 1500 °F	Natural Gas Fuel and Secondary Combustion Chamber (afterburner), ≥ 1600 °F	Secondary Combustion Chamber, ≥ 1600 °F	Yes
PM ₁₀	Secondary Combustion Chamber, ≥ 1500 °F	1. Secondary Combustion Chamber, ≥ 1600 °F (set point at 1650 °F) 2. Secondary Combustion Chamber, ≥ 1500 °F	Natural Gas Fuel and Secondary Combustion Chamber (afterburner), ≥ 1600 °F	Secondary Combustion Chamber, ≥ 1600 °F	Yes
SOx	Natural Gas	Natural Gas Firing	Natural Gas Fuel	Natural Gas	Yes

The emergency engine to be installed at the Centennial Complex (A/N 494679) is subject to tier 3 requirements for emergency compression ignited engines rated between 300 and 750 bhp. The engine complies with these BACT emission limits.

The emergency engine to be installed at the water well (A/N 494678) is subject to tier 2 requirements for emergency compression ignited engines rated greater than or equal to 750 bhp. The engine complies with these BACT emissions limits.

RULE 1303(b)(1) - MODELING

The emissions from the crematories are less than the allowable emissions shown in table A-1 of the rule; therefore, no further modeling analysis is required for the crematories. Modeling is not required for emergency engines. Compliance is expected.

RULE 1303(b)(2) - OFFSETS

The emissions from the facility exceed the offset thresholds from Table A of Rule 1304(d)(2)(B) for NOx, PM₁₀ and ROG. However, LLU is an essential public facility which may request offsets through

¹ The BACT requirements were taken from the South Coast Air Quality Management District (SCAQMD), Bay Area Air Quality Management District (BAAQMD), and the San Joaquin Valley Unified Air Pollution Control District (SVJAPCD) BACT determinations. No determinations were found in the EPA or ARB databases for crematories. Refer to application package.

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the District's Priority Reserve per Rules 1302(m) and 1309.1(b)(3). However, as discussed in the background/summary section, LLU will not be able to receive credits from the District's internal bank. Tables 13 and 14 show the amount of ERCs required for this project and the ERCs provided.

Table 13 ERCs required for LLU Project

Pollutant	30 - Day Emissions				Cumulative 30-Day	ERCs ^(a)
	Crematory #1	Crematory #2	Engine #1	Engine #2		
NOx	0.57	0.57	1.23	0.31	2.67	3
SOx	0.00	0.00	0.00	0.00	0.01	0
PM10	0.03	0.03	0.00	0.01	0.08	0
CO	0.15	0.15	0.23	0.28	0.82	n/a
ROG	0.34	0.34	0.04	0.03	0.74	1

^(a) Calculated as cumulative 30-Day Avg x 1.2 offset ratio factor and rounded

Table 14 ERCs provided for LLU Project

A/N	ERC#	PREV ERC#	EMITTANT	LBS/DAY	START YEAR	END YEAR	ZONE	ISSUE DATE	PRICE \$/LB	ORIG ERC#
497765	AQ009696	AQ009691	NOX	3	0	0	2	4/22/09	80000	AQ001398
497767	AQ009694	AQ009687	ROG	1	0	0	2	4/22/09	10000	AQ000100

Therefore, in order to ensure LLU complies with the requirements of this rule; monthly throughput limits will be placed on the permit for the crematories - 9167 pounds of parts per month, as well as a natural gas fuel usage limit of 130,957 scf per month; and for the engines - 4.2 hours per month of operation for non-emergency use.

RULES 1303(b)(3) – SENSITIVE ZONE REQUIREMENTS

LLU is located in Zone 2A and credits were obtained from Zone 2; therefore, compliance is expected.

RULE 1303(b)(4) – FACILITY COMPLIANCE

LLU filed a Form 500-C2 stating that it did not comply with Rule 218. As discussed in the compliance section, the progress towards compliance is currently under the scrutiny of District source testing, enforcement and legal staff; therefore, LLU is on track to achieving full compliance.

RULE 1303(b)(5) – MAJOR POLLUTING FACILITIES

RULE 1303(b)(5)(A) – ALTERNATIVE ANALYSIS

The applicant is required to conduct an analysis of alternative sites, sizes, production processes, and environmental control techniques for the facility and to demonstrate that the benefits of the proposed project outweigh the environmental and social costs associated with this project. The crematories are to be located in a new teaching facility on campus – Centennial Complex – that will be the home of anatomy classrooms, laboratories, as well as the medical simulation center as a teaching and learning hub on campus. Therefore, the Notice of Determination took into account alternative sites.

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RULE 1303(b)(5)(B) – STATEWIDE COMPLIANCE

As discussed previously, LLU is on track to achieve compliance with Rule 218 under the scrutiny of District staff.

RULE 1303(b)(5)(C) – PROTECTION OF VISIBILITY

Modeling analysis for plume visibility in accordance with Appendix B of Rule 1303 is required if the net increase in emissions from the new or modified source exceeds 15 tons per year of PM10 or 40 tons per year of NOx and if it is within the distance specified in Table C-1, of the rule, from a specified Federal Class I area. The increase associated with the operation of the crematory retorts are less than the thresholds of this section; therefore, no further analysis is required.

RULE 1303(b)(5)(D) – COMPLIANCE THROUGH CEQA

A Negative Declaration was prepared for the Centennial Complex project, SCH Number: 2005111025, and the review period concluded on 12/5/05. The Notice of Determination was made for this project on 1/18/06.

RULE 1401 – NEW SOURCE REVIEW OF TOXIC AIR CONTAMINANTS

This rule is applicable to applications deemed complete on or after June 1, 1990 and it imposes specific limits for maximum individual cancer risk (MICR), cancer burden, and non-cancer acute and chronic hazard indices from new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants (TAC) listed in Table I of Rule 1401. The rule establishes allowable risks for permit units requiring new permit pursuant to Rules 201 or 203. The proposed crematories are new construction and an increase in TAC emissions, thus Rule 1401 applies to this project. The emergency engines are exempt from the requirements of this rule.

Table 15 shows the TAC emission rates for one crematory (rates are the same for the identical units) calculated using the AQMD Rule 1401 Risk Calculator spreadsheet that was used to determine the risk levels associated with the operation of the equipment.

Table 15 TAC Emissions from Crematory

Compound	EF (lb/ton) ^(a)	Rate (lb/hr) ^(b)	Rate (lb/yr) ^(c)
Arsenic and arsenic compounds (inorganic)	4.00E-04	0.00002	0.022
Beryllium (and beryllium compounds)	1.84E-05	9.2E-07	0.001012
Cadmium and cadmium compounds	1.46E-03	0.000073	0.0803
Chromium, hexavalent	1.91E-04	9.55E-06	0.010505
Polychlorinated Dibenzofurans (PCDF) (as 2,3,7,8-Eqiv) and total	1.43E-07	7.15E-09	7.865E-06
Polychlorinated Dibenzo-p-Dioxins (PCDD) (as 2,3,7,8-Eqiv) and total	7.74E-08	3.87E-09	4.257E-06
Formaldehyde	2.89E-09	1.445E-10	1.59E-07
Hydrogen chloride (hydrochloric acid)	1.97E+00	0.0985	108.35
Lead and lead compounds (inorganic, including elemental lead), including but not limited to:	9.39E-03	0.0004695	0.51645
Nickel & nickel compounds (except nickel oxide):	5.09E-04	2.545E-05	0.027995
Mercury and mercury compounds (inorganic)	5.32E-03	0.000266	0.2926
PolyCyclic Aromatic Hydrocarbon (PAHs)	9.63E-04	4.815E-05	0.052965

^(a) TAC emission factors from USEPA Non-Point HAP Source Estimates - August 26, 2003; hexavalent chromium from San Diego APCD

^(b) Rate (lb/hr) = EF (lb/ton) ÷ 2000 lb/ton x 100 lbs-parts/hr

^(c) Rate (lb/yr) = Rate (lb/hr) x 91.67 hrs/mo x 12 mos/yr

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A Tier 3 risk assessment was performed using the stack data provided by the manufacturer and the emission rates determined from the spreadsheet. The results for each unit is shown in table 16 below.

Table 16 Rule 1401 Results

Scenario	Cancer Risk	Chronic Risk	Acute Risk	Cancer Burden
Workplace Receptor	2.72E-07	1.48E-03	1.83E-03	n/a
Residential Receptor	9.61E-07	3.83E-03	2.98E-03	n/a

The MICR is less than 1E-06 and the HIA and HIC are each less than 1; however, in order for each unit to remain below these levels each of the crematories will have **a maximum throughput limit of 9167 pounds of parts per month, as well as a natural gas fuel usage limit of 130,957 scf per month.** Compliance with the permit limits will ensure compliance with Rule 1401.

RULE 1470 - REQUIREMENTS FOR STATIONARY DIESEL-FUELED INTERNAL COMBUSTION AND OTHER COMPRESSION IGNITION ENGINES.

The two engines proposed are emergency compression ignited; therefore, the requirements of this rule are applicable. The rule imposes the following requirements on compression ignition engines:

(c)(2)(A) The engine to be installed adjacent to Anderson Street is within 100 meters of a k-12 school; therefore, the engine will be prohibited from operating for non-emergency use between 7:30 AM and 3:30 PM. The engine to be located at the Centennial Complex is not located near any k-12 schools and will have no restrictions.

(c)(2)(B) The engines will operate in response to impending power outages.

(c)(2)(C)(iii) The engine to be located adjacent to Anderson Street will be installed with a DPF that will reduce emissions to less than 0.01 g/bhp-hr. The engine to be located at the Centennial Complex does not require a DPF; however, the PM emission rate will be less than 0.15 g/bhp-hr.

(c)(2)(C)(iv) The engines meet the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423) for the model year and maximum rated power. Compliance is expected.

(d)(7)(A) The engines will be installed with non-resettable hour meters. Compliance is expected.

(d)(7)(B) The engine to be located adjacent to Anderson Street will be required to have a backpressure monitor. Compliance is expected.

(e)(9) The facility will be required to maintain applicable reporting, recordkeeping, and monitoring requirements for the emergency engines. Compliance is expected.

Therefore, compliance with Rule 1470 is expected for the new engines.

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RULE 1472 - REQUIREMENTS FOR FACILITIES WITH MULTIPLE STATIONARY EMERGENCY STANDBY DIESEL-FUELED INTERNAL COMBUSTION

The purpose of the rule is to reduce diesel PM emissions from facilities with three or more stationary emergency standby diesel-fueled internal combustion engines. LLU will have ten (10) emergency diesel engines; therefore, they are subject to the requirements of this rule.

LLU will be required to submit a Compliance Plan on or before January 1, 2011 and will be required to comply with the final compliance dates in Table 4 of the rule, starting January 1, 2013. It is expected that LLU will meet these compliance dates.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

LLU complied with CEQA; a Negative Declaration was prepared for the Centennial Complex project, SCH Number: 2005111025, and the review period concluded on 12/5/05. The Notice of Determination was made for this project on 1/18/06.

REGULATION XXX – TITLE V PERMITS

The facility is included in Phase I of the Title V universe. The initial Title V permit, A/N 339979, was issued on 4/12/01.

RULE 3003 – APPLICATIONS

The “de minimis significant permit revision” is expected to comply with all applicable requirements of this rule.

(i)(4) The de minimis significant permit revision will be issued only after the permit revision application has been found to comply with all conditions of this rule.

(j)(1) The permit revision will be forwarded to EPA for a 45 day review period.

RULE 3005 – PERMIT REVISION

(e) The proposed Title V permit revision satisfies all the applicable conditions listed in this rule. The modification constitutes a “de minimis significant permit revision” as defined in Rule 3000(b)(6).

RULE 3006 – PUBLIC PARTICIPATION

(b) The proposed “de minimis significant permit revision” is exempt from public participation. However, the Rule 212 public notice for the engine replacement is subject to public participation and will go through a 30 day public review and comment period, since the emissions from the new engine will be higher than the old engine.

RECOMMENDATION(S)

Following the public notice and EPA review periods, issue a new Section D with the following permit conditions for the units.

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PERMIT CONDITIONS

Crematories – A/N 478849 & 480890

1. OPERATION OF THIS EQUIPMENT MUST 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 MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE USED ONLY TO CREMATE HUMAN ANATOMICAL PARTS OR WHOLE BODIES.
[RULE 1303 (b)(2)-OFFSET]
4. THE SECONDARY CHAMBER BURNER SHALL BE USED THROUGHOUT THE PREHEATING AND CREMATION CYCLE.
[RULE 1303 (a)-BACT]
5. A TEMPERATURE OF NOT LESS THAN 1500 DEGREES FAHRENHEIT SHALL BE MAINTAINED IN THE SECONDARY CHAMBER WHEN THE PRIMARY CHAMBER IS IN OPERATION.
[RULE 1303 (a)-BACT]
6. A TEMPERATURE INDICATING AND RECORDING DEVICE SHALL BE INSTALLED AND MAINTAINED IN THE SECONDARY CHAMBER.
[RULE 1303 (a)-BACT]
7. THE TEMPERATURE INDICATING AND RECORDING DEVICE LOCATED IN THE SECONDARY CHAMBER SHALL MEASURE THE TEMPERATURE ON A CONTINUOUS BASIS. THE INSTRUMENT SHALL BE CALIBRATED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS ON AN ANNUAL BASIS.
[RULE 1303 (a)-BACT]
8. THE MAXIMUM THROUGHPUT OF THE CREMATORY SHALL NOT EXCEED 9,167 POUNDS OF ANATOMICAL PARTS AND HUMAN BODIES IN ANY ONE MONTH.
[RULE 1303 (b)(2)-OFFSET, RULE 1401]
9. THE MAXIMUM NATURAL GAS FUEL USAGE OF THE CREMATORY SHALL NOT EXCEED 130,957 SCF IN ANY ONE MONTH.
[RULE 1303 (b)(2)-OFFSET, RULE 1401]
10. THE OPERATOR SHALL MEASURE AND RECORD THE WEIGHT OF EACH CHARGE OF HUMAN ANATOMICAL PARTS AND BODIES PRIOR TO INCINERATION.
[RULE 1303 (b)(2)-OFFSET, RULE 1401]
11. THE OPERATOR SHALL INSTALL AND MAINTAIN A DEDICATED TOTALIZING FUEL FLOW METER, WITH AN ACCURACY OF +/- 5%, TO CONTINUOUSLY MEASURE THE NATURAL GAS FUEL USAGE BEING SUPPLIED TO THE CREMATORY. THE INSTRUMENT SHALL BE

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CALIBRATED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS ON AN ANNUAL BASIS. A COMPUTER THAT COLLECTS, SUMS, AND STORES ELECTRONIC DATA FROM CONTINUOUS FUEL FLOW METERS IS AN ACCEPTABLE TOTALIZER. THE TOTALIZING FUEL FLOW METER MUST CONTINUOUSLY OPERATE WHEN THE UNIT IS OPERATING.

[RULE 1303 (b)(2)-OFFSET]

12. THE OPERATOR SHALL KEEP RECORDS IN A MANNER APPROVED BY THE DISTRICT FOR THE FOLLOWING PARAMETERS OR ITEMS:
- A. MASS OF HUMAN ANATOMICAL PARTS AND BODIES INCINERATED.
 - B. NATURAL GAS FUEL USAGE OF THE CREMATORY.
 - C. NAME AND CONTACT INFORMATION OF PERSONNEL OPERATING THE CREMATORY.
 - D. CALIBRATION RECORDS FOR TEMPERATURE AND FUEL FLOW MONITORING DEVICES.

RECORDS SHALL BE RETAINED FOR A PERIOD OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

[RULE (a)-BACT, 1303(RULE 1303 (b)(2)-OFFSET, RULE 1401]

Periodic Monitoring:

13. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON A MONTHLY BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE MONTHLY PERIOD. THE ROUTINE MONTHLY INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE-HOUR, THE OPERATOR SHALL EITHER:
- A. VERIFY AND CERTIFY WITHIN 24 HOURS THAT THE EQUIPMENT CAUSING THE EMISSION AND ANY ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT ARE OPERATING NORMALLY ACCORDING TO THEIR DESIGN AND STANDARD PROCEDURES AND UNDER THE SAME CONDITIONS UNDER WHICH COMPLIANCE WAS ACHIEVED IN THE PAST;
 - B. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT; OR
 - C. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

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- D. STACK OR EMISSION POINT IDENTIFICATION;
 - E. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
 - F. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
 - G. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.
- [RULE 3004 (a)(4)]

Emissions And Requirements:

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

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
 PM: 0.1 GR/SCF, RULE 409
 PM: 0.1 GR/SCF RULE 473
 CO: 2000 PPMV, RULE 407

ICE - A/N 494678

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 MORE THAN A TOTAL OF 200 HOURS IN ANY ONE YEAR WHICH INCLUDES NO MORE THAN 50 HOURS FOR MAINTENANCE AND PERFORMANCE TESTING.
[RULE 1304(a)-MODELING, RULE 1110.2, RULE 1470]
4. ENGINE OPERATION FOR MAINTENANCE AND TESTING PURPOSES SHALL NOT EXCEED 4.2 HOURS IN ANY ONE MONTH.
[RULE 1303(b)(2)-OFFSET]
5. OPERATION 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 UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
6. THE ENGINE SHALL NOT BE OPERATED FOR NON-EMERGENCY USE BETWEEN THE HOURS OF 7:30 A.M. AND 3:30 P.M. ON DAYS WHEN SCHOOL IS IN SESSION.
[RULE 1470]

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7. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS ITS EXHAUST IS VENTED TO A DIESEL PARTICULATE FILTER SYSTEM WHICH IS IN FULL OPERATION AND IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 1470]
8. THIS ENGINE SHALL NOT BE OPERATED IN IDLE MODE FOR MORE THAN 240 CONSECUTIVE MINUTES.
[RULE 1470]
9. THE OPERATOR SHALL INSTALL A BACKPRESSURE AND TEMPERATURE MONITOR AND ALARM SYSTEM THAT CONTINUOUSLY RECORDS AND DATA LOGS THE TEMPERATURE AND BACKPRESSURE OF THE EXHAUST AS WELL AS DATE AND TIME OF EQUIPMENT OPERATION.
[RULE 1470]
10. THE BACKPRESSURE AND TEMPERATURE MONITOR AND ALARM SYSTEM SHALL BE PROGRAMMED TO INTERFACE WITH THE ENGINE CONTROL SYSTEM TO AUTOMATICALLY SHUT THE ENGINE DOWN WHENEVER THE BACKPRESSURE EXCEEDS THE MAXIMUM BACKPRESSURE SETTING SPECIFIED BY THE FILTER MANUFACTURER.
[RULE 1470]
11. THE ALARM SYSTEM SHALL BE CAPABLE OF NOTIFYING THE OPERATOR WHEN HIGH BACKPRESSURE IS APPROACHED THROUGH VISUAL WARNING LIGHTS, SOUNDING AN AUDIBLE ALARM, OR BE SENDING A REMOTE ALARM SIGNAL TO THE OPERATOR.
[RULE 1470]
12. THE OPERATOR SHALL REGENERATE THE DIESEL PARTICULATE FILTER AFTER EVERY 10 COLD START-UPS OR WHENEVER THE BACKPRESSURE MONITOR AND ALARM SYSTEM DISPLAYS A WARNING SIGNAL, SOUNDS AN AUDIBLE ALARM, OR SENDS A REMOTE ALARM SIGNAL TO THE OPERATOR. IN ORDER TO ACHIEVE FILTER REGENERATION, THE OPERATOR SHALL RUN THE ENGINE UNTIL THE EXHAUST TEMPERATURE EXCEEDS 300 DEGREES CELSIUS (572 DEGREES FAHRENHEIT) OR ABOVE 40% LOAD UNTIL THE BACKPRESSURE MONITORING SYSTEM INDICATES A NORMAL BACKPRESSURE READING.
[RULE 1470]
13. THE OPERATOR SHALL KEEP RECORDS IN A MANNER APPROVED BY THE DISTRICT FOR THE FOLLOWING PARAMETERS OR ITEMS:
 - A. - DATA COLLECTED FROM THE DATA LOGGER THAT INCLUDES THE BACKPRESSURE IN INCHES OF WATER COLUMN, TEMPERATURE IN FAHRENHEIT AND THE DATE AND TIME OF ENGINE OPERATION
 - B. BACKPRESSURE SET POINTS USED TO PROGRAM THE BACKPRESSURE MONITOR AND ALARM SYSTEM
 - C. DATE AND TIME CATALYST CLEANING OR REPLACEMENT

RECORDS SHALL BE RETAINED FOR A PERIOD OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1470].

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14. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH SHALL ON A MONTHLY BASIS INCLUDE MANUAL AND AUTOMATIC OPERATION AND SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:

- A. EMERGENCY USE HOURS OF OPERATION
- B. MAINTENANCE AND TESTING HOURS
- C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.

[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]]

15. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR GRID OPERATOR.

[RULE 1303(a)-BACT]

16. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE RECORDKEEPING, REPORTING AND MONITORING REQUIREMENTS OF RULE 1470.

[RULE 1470]

Periodic Monitoring:

17. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.

[RULE 3004 (a)(4)]

Emissions And Requirements:

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

- NO_x+NMHC: 4.8 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
- CO: 2.6 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
- PM: 0.15 GRAM/BHP-HR, RULE 1303(a)(1)-BACT
- PM: 0.01 GRAM/BHP-HR, RULE 1470
- PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

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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 MORE THAN A TOTAL OF 200 HOURS IN ANY ONE YEAR WHICH INCLUDES NO MORE THAN 50 HOURS FOR MAINTENANCE AND PERFORMANCE TESTING.
[RULE 1304(a)-MODELING, RULE 1110.2, RULE 1470]
4. ENGINE OPERATION FOR MAINTENANCE AND TESTING PURPOSES SHALL NOT EXCEED 4.2 HOURS IN ANY ONE MONTH.
[RULE 1303(b)(2)-OFFSET]
5. OPERATION 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 UTILITY DISTRIBUTION COMPANY 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)-MODELING AND OFFSET, RULE 1110.2, RULE 1470]
6. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH SHALL ON A MONTHLY BASIS INCLUDE MANUAL AND AUTOMATIC OPERATION AND SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1110.2, RULE 1470]

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7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR GRID OPERATOR.
[RULE 1303(a)-BACT]
8. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE RECORDKEEPING, REPORTING AND MONITORING REQUIREMENTS OF RULE 1470.
[RULE 1470]

Periodic Monitoring:

9. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (a)(4)]

Emissions And Requirements:

10. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
NO_x+NMHC: 3.0 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
CO: 2.6 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
PM: 0.15 GRAMS/BHP-HR, RULE 1303(a)(1)-BACT
PM: 0.15 GRAMS/BHP-HR, RULE 1470
PM: RULE 404; SEE APPENDIX B FOR EMISSION LIMITS