Santa Barbara County
Air Pollution Control District

Authority to Construct/Permit to Operate 13963

EQUIPMENT OWNER:

Goleta Valley Cottage Hospital 320420

EQUIPMENT OPERATOR:

Goleta Valley Cottage Hospital

EQUIPMENT LOCATION:

351 S. Patterson Avenue, Goleta

STATIONARY SOURCE/FACILITY:

Goleta Valley Cottage Hospital SSID: 03909
FID: 03909

EQUIPMENT DESCRIPTION:

Diesel-fired emergency standby engine(s) as listed in the table at the end of this permit.

PROJECT/PROCESS DESCRIPTION:

The diesel engine(s) subject to this permit provide electrical backup power in times of emergencies as defined by the State's *Airborne Toxics Control Measure for Stationary Compression Ignition Engines* (ATCM). This ATCM (CCR Section 93115, Title 17) limits annual engine maintenance and testing hours (as listed for each engine in the equipment list) with no limitation for emergency use. Definitions of the terms "*maintenance and testing*" and "*emergency use*" are found in the ATCM and the District's webpage at http://www.sbcapcd.org/eng/atcm/dice/dice_atcm.htm.

The equipment listed on this permit is subject to BACT standards for NOx. Goleta Valley Cottage Hospital has provided the District with EPA Certificates of Conformity for both E/S generators in order to meet these requirements. In addition, the equipment listed on this permit will replace a 742 bhp Caterpillar E/S generator permitted under Reeval 11877-R2.

CONDITIONS:

1. **Emission Limitations.** The mass emissions from the equipment permitted herein shall not exceed the values listed in Table 1. Emissions of PM and other pollutants shall not exceed the emissions standards listed in Table 2 of this permit. Compliance shall be based on the operational, monitoring, recordkeeping and reporting conditions of this permit.

2. **Operational Restrictions.** The equipment permitted herein is subject to the following operational restrictions listed below. Emergency use operations, as defined in the ATCM[1], have no operational hours limitations.

    a. Maintenance & Testing Use Limit: The stationary emergency standby diesel-fueled compression ignition (CI) engine(s) subject to this permit, except for in-use firewater pump engines, shall limit maintenance and testing[2] operations to no more than the hours listed in the attached permit equipment list.

    b. Impending Rotating Outage Use: The stationary emergency standby diesel-fueled CI engine(s) subject to this permit may be operated in response to the notification of an impending rotating outage if all the conditions cited in the ATCM are met, as applicable.

    c. Fuel and Fuel Additive Requirements: The permittee may only add fuel and/or fuel additives to the engine or any fuel tank directly attached to the engine that comply with the ATCM, as applicable.

    d. Initial Startup Hours: Initial startup hours shall not exceed 5 hours.

3. **Monitoring.** The equipment permitted herein is subject to the following monitoring requirements:

    a. Non-Resettable Hour Meter: Each stationary emergency standby diesel-fueled CI engine(s) subject to this permit shall have installed a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District has determined (in writing) that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history.

4. **Recordkeeping.** The permittee shall record and maintain the information listed below. Log entries shall be retained for a minimum of 36 months from the date of entry. Log entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request. Log entries made from 25 to 36 months from most recent entry shall be made available to

[1] As used in the permit, "ATCM" means Section 93115, Title 17, California Code of Regulations. Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines

[2] "maintenance and testing" is defined in of the ATCM and may also be found on the District webpage at http://www.sbcapcd.org/eng/atcm/dice/ES_MT_DICE_Definitions.pdf

District staff within 5 working days from request. Use of District Form ENF-92 (*Diesel-Fired Emergency Standby Engine Recordkeeping Form*) can be used for this requirement.

a. emergency use hours of operation.

b. maintenance and testing hours of operation.

c. hours of operation for emission testing to show compliance with the ATCM {if specifically allowed for under this permit}.

d. hours of operation for all uses other than those specified in items (a) – (c) above along with a description of what those hours were for.

e. The owner or operator shall document fuel use through the retention of fuel purchase records that demonstrate that the only fuel purchased and added to an emergency standby engine or engines, or to any fuel tank directly attached to an emergency standby engine or engines, meets the requirements of the ATCM.

f. hours of operation to comply with the requirements of the NFPA for healthcare facilities or firewater pumps {if applicable}.

5. **Reporting.** By March 1 of each year, a written report documenting compliance with the terms and conditions of this permit and the ATCM for the previous calendar year shall be provided by the permittee to the District (Attn: *Annual Report Coordinator*). All logs and other basic source data not included in the report shall be made available to the District upon request. The report shall include the information required in the Recordkeeping Condition above.

6. **Temporary Engine Replacements - DICE ATCM.** Any reciprocating internal combustion engine subject to this permit and the stationary diesel ATCM may be replaced temporarily only if the requirements (a – f) listed herein are satisfied.

a. The permitted engine is in need of routine repair or maintenance.

b. The permitted engine that is undergoing routine repair or maintenance is returned to its original service within 180 days of installation of the temporary engine.

c. The temporary replacement engine has the same or lower manufacturer rated horsepower and same or lower potential to emit of each pollutant as the permitted engine that is being temporarily replaced. At the written request of the permittee, the District may approve a replacement engine with a larger rated horsepower than the permitted engine if the proposed temporary engine has manufacturer guaranteed emissions (for a brand new engine) or source test data (for a previously used engine) less than or equal to the permitted engine.

d. The temporary replacement engine shall comply with all rules and permit requirements that apply to the permitted engine that is undergoing routine repair or maintenance.

e. For each permitted engine to be temporarily replaced, the permittee shall submit a completed *Temporary IC Engine Replacement Notification* form (Form ENF-94) within 14 days of the temporary engine being installed. This form may be sent hardcopy, or can be e-mailed (e-mail: engr@sbcapcd.org) to the District (Attn: Engineering Supervisor).

f. Within 14 days upon return of the original permitted engine to service, the permittee shall submit a completed *Temporary IC Engine Replacement Report* form (Form ENF-95). This form may be sent hardcopy, or can be e-mailed (e-mail: engr@sbcapcd.org) to the District (Attn: Engineering Supervisor).

Any engine in temporary replacement service shall be immediately shut down if the District determines that the requirements of this condition have not been met. This condition does not apply to engines that have experienced a cracked block (unless under manufacturer's warranty), to engines for which replacement parts are no longer available, or new engine replacements {including "reconstructed" engines as defined in the ATCM}. Such engines are subject to the provisions of New Source Review and the new engine requirements of the ATCM.

7. **Permanent Engine Replacements.** Any E/S engine, firewater pump engine or engine used for an essential public service that breaks down and cannot be repaired may install a new replacement engine without first obtaining an ATC permit only if the requirements (a – e) listed herein are satisfied.

a. The permitted stationary diesel IC engine is an E/S engine, a firewater pump engine or an engine used for an essential public service (as defined by the District).

b. The engine breaks down, cannot be repaired and needs to be replaced by a new engine.

c. The facility provides "good cause" (in writing) for the immediate need to install a permanent replacement engine prior to the time period before an ATC permit can be obtained for a new engine. The new engine must comply with the requirements of the ATCM for new engines. If a new engine is not immediately available, a temporary engine may be used while the new replacement engine is being procured. During this time period, the temporary replacement engine must meet the same guidelines and procedures as defined in the permit condition above (*Temporary Engine Replacements - DICE ATCM*).

d. An Authority to Construct application for the new permanent engine is submitted to the District within 15 days of the existing engine being replaced and the District permit for the new engine is obtained no later than 180 days from the date of engine replacement (these timelines include the use of a temporary engine).

e. For each permitted engine to be permanently replaced pursuant to the condition, the permittee shall submit a completed *Permanent IC Engine Replacement Notification* form (Form ENF-96) within 14 days of either the permanent or temporary engine being installed. This form may be sent hardcopy, or can be e-mailed (e-mail:

engr@sbcapcd.org) to the District (Attn: Engineering Supervisor).

Any engine installed (either temporarily or permanently) pursuant to this permit condition shall be immediately shut down if the District determines that the requirements of this condition have not been met.

8. **Notification of Non-Compliance.** Owners or operators who have determined that they are operating their stationary diesel-fueled engine(s) in violation of the requirements specified in the ATCM shall notify the District immediately upon detection of the violation and shall be subject to District enforcement action.

9. **Notification of Loss of Exemption.** Owners or operators of in-use stationary diesel-fueled CI engines, who are subject to an exemption specified in the ATCM from all or part of the requirements of the ATCM, shall notify the District immediately after they become aware that the exemption no longer applies and shall demonstrate compliance within 180 days after notifying the District.

10. **Enrollment in a DRP/ISC - January 1, 2005.** Any stationary diesel CI engine rated over 50 bhp that enrolls for the first time in a Demand Response Program/Interruptible Service Contract (as defined in the ATCM) on or after January 1, 2005, shall first obtain an Authority to Construct permit to ensure compliance with the emission control requirements and hour limitations governing ISC engines.

11. **Consistency with Analysis.** Operation under this permit shall be conducted consistent with all data, specifications and assumptions included with the application and supplements thereof (as documented in the District's project file) and the District's analyses under which this permit is issued as documented in the Permit Analyses prepared for and issued with the permit.

12. **Equipment Maintenance.** The equipment listed in this permit shall be properly maintained and kept in good condition at all times. The equipment manufacturer's maintenance manual, maintenance procedures and/or maintenance checklists (if any) shall be kept on site.

13. **Compliance.** Nothing contained within this permit shall be construed as allowing the violation of any local, state or federal rules, regulations, air quality standards or increments.

14. **Severability.** In the event that any condition herein is determined to be invalid, all other conditions shall remain in force.

15. **Conflict Between Permits.** The requirements or limits that are more protective of air quality shall apply if any conflict arises between the requirements and limits of this permit and any other permitting actions associated with the equipment permitted herein.

16. **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the District or its agents, the permittee shall make such records available or provide access to such facilities upon notice from the

District. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A.

17. **Equipment Identification.** Identifying tag(s) or name plate(s) shall be displayed on the equipment to show manufacturer, model number, and serial number. The tag(s) or plate(s) shall be issued by the manufacturer and shall be affixed to the equipment in a permanent and conspicuous position.

18. **Emission Factor Revisions. N/A**

19. **Transfer of Owner/Operator.** This permit is only valid for the owner and operator listed on this permit unless a *Transfer of Owner/Operator* application has been applied for and received by the District. Any transfer of ownership or change in operator shall be done in a manner as specified in District Rule 203. District Form –01T and the appropriate filing fee shall be submitted to the District within 30 days of the transfer.

20. **Reimbursement of Costs. N/A**

21. **Source Testing. N/A**

22. **Initial Operations and District Inspection.** The permittee shall:

    a. Notify the District in writing (Attn: Engineering & Compliance Division) of the initial equipment operation date. This notification shall be made with 14 days of initial operations using the enclosed yellow Startup Notification card.

    b. Arrange for equipment inspection by contacting the District's Engineering Supervisor (961-8800) no later than fourteen (14) calendar days after initial operations commence. The equipment inspection shall occur not more than thirty (30) calendar days (or other mutually agreed upon time period) after initial operations begins. This inspection is required to verify that the equipment and its operations are in compliance with local, State and Federal regulations and the permit conditions herein.

23. **BACT.** The permittee shall apply emission control technology and plant design measures that represent Best Available Control Technology ("BACT") to the operation of the equipment/facilities as described in this permit and the District's *Permit Evaluation* for this permit. Table 3 (*BACT Requirements*) and the Emissions Limitations Condition (*BACT Emissions Limits)* herein define the specific control technology and performance standard emission limits for BACT. The BACT shall be in place, and shall be operational at all times, for the life of the project.

AIR POLLUTION CONTROL OFFICER

DATE

Attachments:

- Table 1 – Mass Emission Limits
- Table 2 – Emission Standards
- Table 3 - Best Available Control Technology
- Permit Equipment List
- Permit Evaluation for Authority to Construct 13963

Notes:

- Reevaluation Due Date: March 1, 2016.
- ATCM information can be located online at http://www.sbcapcd.org/eng/atcm/dice/dice_atcm.htm
- Detailed recordkeeping is required. See Form ENF -92 at the above webpage.
- Stationary sources are subject to an annual emission fee (see Fee Schedule B-3 of Rule 210).
- Annual reports are due by March 1st of each year.
- This permit is valid for one year from the date stamped above if unused.
- This permit supersedes Reeval 11877-R2

TABLE 1. MASS EMISSION LIMITS

Device ID #	NOx		ROC		CO		SOx		PM		PM10	
	lb/day	tpy	lb/day	tpy	lb/day	tpy	lb/day	tpy	lb/day	tpy	lb/day	tpy
114882	31.07	0.39	1.95	0.02	16.96	0.21	0.04	0.00	0.97	0.01	0.97	0.01
114883	31.07	0.39	1.95	0.02	16.96	0.21	0.04	0.00	0.97	0.01	0.97	0.01
Total	**62.14**	**0.78**	**3.90**	**0.04**	**33.92**	**0.42**	**0.08**	**0.00**	**1.94**	**0.02**	**1.94**	**0.02**

TABLE 2. EMISSION FACTORS (g/bhp-hr)

Device ID #	NOx	ROC	CO	SOx	PM	PM10
114882	4.78	0.30	2.61	0.01	0.15	0.15
114883	4.78	0.30	2.61	0.01	0.15	0.15

Table Notes:

(a) Mass emission limits based on allowable maintenance and testing hours.
(b) NO_x as NO_2. SO_x as SO_2. PM means diesel PM.
(c) Device ID # from permit equipment list.
(d) lb/day = pounds per day. tpy = tons per year
(e) Emission data that round down to 0.00 has been set to a default of 0.01.

TABLE 3 - BEST AVAILABLE CONTROL TECHNOLOGY

Emission Unit/Process	Control Technology	Pollutant	Performance Standard
Emergency Standby IC Engines	EPA Tier 2 Certification	NO_x	4.78 g/bhp-hr

Table Notes:

(a) NO_x as NO_2, SO_x as SO_2, lb/day = pounds per day, tpy = tons per year.

A. PERMITTED EQUIPMENT LIST

Device ID #	114882	*Maximum Rated BHP*	1474
Device Name	Emergency Backup Generator #1	*Serial Number*	G1E00996
Engine Use	Electrical Power	*EPA Engine Family Name*	BCPXL32.0NZS
Manufacturer	Caterpillar	*Operator ID*	
Model Year	2011	*Fuel Type*	CARB Diesel - ULSD
Model	C-32		
DRP/ISC?	No	*Healthcare Facility?*	Yes
Daily Hours	2.00	*Annual Hours*	50
Location Note	351 S. Patterson Ave, Goleta		
Device Description	Diesel-fired internal combustion engine.		

Device ID #	114883	*Maximum Rated BHP*	1474
Device Name	Emergency Backup Generator #2	*Serial Number*	
Engine Use	Electrical Power	*EPA Engine Family Name*	BCPXL32.0NZS
Manufacturer	Caterpillar	*Operator ID*	
Model Year	2011	*Fuel Type*	CARB Diesel - ULSD
Model	C-32		
DRP/ISC?	No	*Healthcare Facility?*	Yes
Daily Hours	2.00	*Annual Hours*	50
Location Note	351 S. Patterson Ave, Goleta		
Device Description	Diesel-fired internal combustion engine.		

B. DEPERMITTED EQUIPMENT LIST

Device ID #	107205	*Maximum Rated BHP*	742
Device Name	E/S Diesel Power Generator	*Serial Number*	81Z15624
Engine Use	Electrical Power	*EPA Engine Family Name*	
Manufacturer	Caterpillar	*Operator ID*	
Model Year	1994	*Fuel Type*	CARB Diesel - ULSD
Model	3412		
DRP/ISC?	No	*Healthcare Facility?*	Yes
Daily Hours	2.00	*Annual Hours*	40
Location Note			
Device Description	Emergency power for hospital.		

Santa Barbara County
Air Pollution Control District

PERMIT EVALUATION FOR
AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13963

1.0 BACKGROUND

This permit addresses requirements of the State's Airborne Toxic Control Measure for Stationary Compression Ignition Engines (DICE ATCM). On March 17, 2005 District Rule 202 {*Exemptions to Rule 201*} was revised to remove the compression-ignited engine (e.g., diesel) permit exemption for units rated over 50 brake horsepower (bhp). That exemption was removed to allow the District to implement the DICE ATCM.

The engines authorized by this permit are part of a larger project that includes new boilers and water heaters authorized by ATC 13964. The potential to emit of all the equipment authorized by both permits is used to determine the potential to emit for the project. The potential to emit for the project triggers BACT requirements for NOx. The use of engines certified to the most current Tier standard satisfies BACT for emergency standby engines.

2.0 DICE ATCM COMPLIANCE

Owners of New Stationary DICE E/S engines are subject to the requirements of Table 1 of the ATCM. Healthcare facilities are authorized to operate for an additional 20 hours/year, totaling 40 hours/year. The ATCM requires that the hours of operation be monitored with a non-resettable hour meter, that CARB Diesel Fuel be used (or approved alternative) and that detailed records of use be recorded and reported.

3.0 EMISSIONS/NEI

Emissions: Mass emission estimates are based on the maximum allowed hours for maintenance and testing. Emissions are determined by the following equations:

E1, lb/day = Engine Rating (bhp) * EF (g/bhp-hr) * Daily Hours (hr/day) * (lb/453.6 g)
E2, tpy = Engine Rating (bhp) * EF (g/bhp-hr) * Annual Hours (hr/yr) * (lb/453.6 g) * (ton/2000 lb)

The emission factors (EF) were chosen based on each engine's rating and age. Unless engine specific data was provided, default emission factors are used as documented on the District's webpage at http://www.sbcapcd.org/eng/atcm/dice/dice_efs.htm. Daily hours are assumed to be 2 hrs/day (re: ATCM FAQ Ver 1.5 #32) unless otherwise requested by the applicant.

NEI: The net emissions increase (NEI) for Goleta Valley Cottage Hospital is equal to the existing facility NEI plus the NEI due to this project. The NEI due to this project is identified in *IDS Tables* Attachment. This facility's contribution to the stationary source's net emissions increase since November 15, 1990 (the day the federal Clean Air Act Amendments were adopted) is based on the NSR permit actions since December 5, 1991.

4.0 REEVALUATION REVIEW (not applicable)

5.0 AQIA

The project is not subject to the Air Quality Impact Analysis requirements of Regulation VIII.

6.0 OFFSETS/ERCs

Offsets: Emission offsets are not triggered for this permit.

ERCs: This source does not generate emission reduction credits.

7.0 AIR TOXICS

A cancer Health Risk Assessment (HRA) screening was run for this project. The results showed a maximum cancer risk of 5.15 in a million, which is below the District's significant risk threshold of 10 in a million. This maximum cancer risk was calculated based on the following assumptions:

- Santa Barbara meteorological data is representative.
- Urban model type.
- Building downwash.
- 100% Load.
- 50 hrs. /year of operation for maintenance and testing.
- Worst-case minimum distance from the engine to the property boundary is 500 feet.

Acute and chronic non-cancer risks were also assessed. The maximum acute non-cancer risk was determined to be 0.0205 in a million while the maximum chronic non-cancer risk was calculated to be 0.0291 in a million. These figures are below the District threshold of 1 case per million people. The screening HRA inputs and results can be found in the *Air Toxics Documentation* Attachment to this permit.

8.0 CEQA / LEAD AGENCY

The District is the lead agency under CEQA for this project and has prepared a Notice of Exemption. Pursuant to Section 15061(b)(3) of the California Environmental Quality Act ("CEQA") Guidelines, the proposed modifications authorized under this permit are exempt from CEQA because the project does not have the potential for causing a significant effect on the environment. Further, no cross-media impacts are projected.

9.0 SCHOOL NOTIFICATION

A school notice pursuant to the requirements of H&SC §42301.6 is required as the project site is located within 1,000 feet of St. Raphael School.

10.0 PUBLIC and AGENCY NOTFICATION PROCESS/COMMENTS ON DRAFT PERMIT

10.1 This project is subject to public review for 30 days.

10.2 Permittee comments and District responses can be seen in Attachment D.

11.0 FEE DETERMINATION

Fees for this permit were assessed pursuant to Schedule A.3 of Rule 210.

12.0 RECOMMENDATION

It is recommended that this permit be granted with the conditions as specified in the permit.

Kevin Brown	March 8, 2013		
AQ Engineer/Technician	Date	Supervisor	Date

13.0 ATTACHMENT(S)

A. IDS Tables
B. Air Toxics Documentation
C. Fee Statement
D. Permittee Comments

ATTACHMENT A
IDS TABLES

Facility Net Emissions Increase
Company: Goleta Valley Cottage Hospital
Date: March 8, 2013

I. This Projects "I" NEI-90

Permit	Date	NOx		ROC		CO		SOx		PM		PM10	
No.	Issued	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
13963	TBD		0.78		0.04		0.42		0.00		0.02		0.02
Totals		**0.00**	**0.78**	**0.00**	**0.04**	**0.00**	**0.42**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.02**

II. This Facility's "P1s"
Enter all facility "P1" NEI-90s below:
PTO 7250-R8, PTO 8010-R7, & PTO 9136-R6

Permit	Date	NOx		ROC		CO		SOx		PM		PM10	
No.	Issued	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
13964	TBD	7.24	1.32	2.72	0.49	18.77	3.39	6.94	1.25	3.79	0.67	3.79	0.67
Totals		**7.24**	**1.32**	**2.72**	**0.49**	**18.77**	**3.39**	**6.94**	**1.25**	**3.79**	**0.67**	**3.79**	**0.67**

Notes: (1) Facility NEI from IDS.

III. This Facility's "P2" NEI-90 Decreases
Enter all facility "P2" NEI-90s below:

Permit	Date	NOx		ROC		CO		SOx		PM		PM10	
No.	Issued	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
Totals		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Notes: (1) Facility NEI from IDS.

IV. This Facility's Pre-90 "D" Decreases
Enter all facility "D" decreases below:

Permit	Date	NOx		ROC		CO		SOx		PM		PM10	
No.	Issued	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
Totals		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Notes: (1) Facility "D" from IDS.

V. Calculated This Facility's NEI-90
Table below summarizes facility NEI-90 as equal to: I+ (P1-P2) -D

	NOx		ROC		CO		SOx		PM		PM10	
Term	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
Project "I"	0.00	0.78	0.00	0.04	0.00	0.42	0.00	0.00	0.00	0.02	0.00	0.02
P1	7.24	1.32	2.72	0.49	18.77	3.39	6.94	1.25	3.79	0.67	3.79	0.67
P2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FNEI-90	**7.24**	**2.10**	**2.72**	**0.53**	**18.77**	**3.81**	**6.94**	**1.25**	**3.79**	**0.69**	**3.79**	**0.69**

Notes:
(1) Resultant FNEI-90 from above Section I thru IV data.
(2) Totals only apply to permits for this facility ID. Totals may not appear correct due to rounding.
(3) Because of rounding, values in this table shown as 0.00 are less than 0.005, but greater than zero.

PERMIT POTENTIAL TO EMIT

	NO_x	ROC	CO	SO_x	PM	PM_{10}
lb/day	62.14	3.90	33.92	0.08	1.94	1.94
lb/hr						
TPQ						
TPY	0.78	0.04	0.42	0.00	0.02	0.02

FACILITY POTENTIAL TO EMIT

	NO_x	ROC	CO	SO_x	PM	PM_{10}
lb/day	69.38	6.62	52.69	7.02	5.73	5.73
lb/hr						
TPQ						
TPY	2.10	0.53	3.46	1.25	0.69	0.69

FACILITY NEI90

	NO_x	ROC	CO	SO_x	PM	PM_{10}
lb/day	7.24	2.72	18.77	6.94	3.79	3.79
lb/hr						
TPQ						
TPY	2.10	0.53	3.46	1.25	0.69	0.69

Notes:
(1) Emissions in these tables are from IDS.
(2) Because of rounding, values in these tables shown as 0.00 are less than 0.005, but greater than zero.

ATTACHMENT B
AIR TOXICS DOCUMENTATION

Santa Barbara County District
Health Risk Assessment Screening Report

Facility: Goleta Valley Cottage Hospital

I. Summary

In October, 2012, the Santa Barbara County Air Pollution Control District (District) conducted an air toxics Health Risk Assessment (HRA) screening for the proposed installation of eleven new natural gas fired boilers and two new diesel fired emergency standby generators at Goleta Valley Cottage Hospital in Goleta. The HRA screening was performed using SCREEN3 software, Version 5.00, and the District's Diesel IC Engine Screening Risk Tool. Cancer risk and chronic and acute non-cancer Hazard Index (HI) risk values were calculated and compared to *significance thresholds* for cancer and chronic and acute non-cancer risk adopted by the District's Board of Directors. The calculated risk values and applicable thresholds are as follows:

	Goleta Valley Cottage Hospital Max Risks	Significance Threshold
Cancer risk:	**5.15 /million**	**≥10/million**
Chronic non-cancer risk:	**0.0205**	**≥ 1**
Acute non-cancer risk:	**0.0291**	**≥ 1**

Based on these results, the installation of eleven natural gas fired boilers and two diesel fired emergency standby generators would not present a significant risk to the school or the surrounding community. For this reason, Authority to Construct 13964 and Authority to Construct/Permit to Operate No.13963 will be issued for this project.

II. Background

This permitting action is for the installation of eleven natural gas fired boilers and two diesel fired emergency standby generators at Goleta Valley Cottage Hospital located at 351 S. Patterson Avenue in Goleta. The property boundary of Goleta Valley Cottage Hospital is within 1000 feet of St. Raphael School, located at 160 St. Joseph Street, where students and faculty are present. For that reason, a health risk assessment screening was required. The District conducted two HRA screenings, one based on a residential lifetime exposure duration of 70 years for the nearest residential area, and another based on a 40 year worker exposure duration for the nearest industrial area. Both of these HRA screenings showed risks below the significance thresholds adopted by the District's Board of Directors, and the maximum risks are shown above.

III. Facility Information

EQUIPMENT OWNER/OPERATOR: Goleta Valley Cottage Hospital

SOURCE IDENTIFICATION NUMBER: 03909

EQUIPMENT LOCATION: 351 S. Patterson Avenue, Goleta

EQUIPMENT DESCRIPTION: Eleven (11) natural gas fired boilers and two (2) diesel fired emergency standby generators. The boilers consist of three (3) Cleaver-Brooks 6.124 MMBtu/hr boilers, seven (7) Fulton 0.398 MMBtu/hr boilers, and two (2) PVi 1.200 MMBtu/hr water heaters. The generators consist of two (2) identical 1474 bhp Caterpillar engines.

IV. Stack and Modeling Parameters (a.k.a. Emission Release Points)

The emissions from the boilers were modeled as point sources with the exhaust stacks as the exit points. All eleven boiler exhausts will be manifolded into one common exhaust header and then exhausted through four identical exhaust stacks. The emissions from the generators were modeled based on the default modeling parameters contained in the Diesel IC Engine Screening Risk Tool. The minimum receptor distance for the 40 year worker risk scenario was set to 140 feet as this is the minimum distance from the closest exhaust stack to the nearest property boundary. The minimum receptor distance for the 70 year resident risk scenario was set to 500 feet as this is the minimum distance from the closest exhaust stack to the nearest residential property boundary. The stack parameter inputs to the dispersion model are as follows:

Source	Stack Height (ft)	Stack Temperature (°F)	Stack Velocity (fpm)	Stack Flow Rate (acfm)	Stack Diameter (ft)
Boiler Stack 1	38	400	1260	2750	1.6667
Boiler Stack 2	38	400	1260	2750	1.6667
Boiler Stack 3	38	400	1260	2750	1.6667
Boiler Stack 4	38	400	1260	2750	1.6667

The stack velocity was calculated from the volumetric flow.

V. Emissions

The speciated organic emissions for the boilers were based on the manufacturer's specified maximum heat inputs for the equipment and the Ventura County District's *AB 2588 Combustion Emission Factors for Natural Gas Fired External Combustion Equipment rated less than 10 MMBtu/hr*. The speciated metal emissions for the boilers were based on manufacturer's specified maximum heat input for the equipment and USEPA AP-42 Table 1.4-4 *Emission Factors for Metals from Natural Gas Combustion.* The diesel particulate matter emissions for the generators were based on manufacturer's specified maximum horsepower rating for the equipment and the tier III PM emission standard of 0.15 g/bhp-hr.

The resultant emission profile for the facility may be found in the spreadsheet files referenced in the Attachment section of this report.

VI. Building Information

The boiler exhaust stacks will be located on a building. The dimensions of this building were provided by the applicant and included in the health risk assessment modeling. The diesel generator exhaust stacks will be located near a building, so the building downwash option was used in the diesel engine screening tool.

VII. Met Data & DEM Files

Meteorological data used in the dispersion analysis was SCREEN3 screening met data. Screening met data was used as a worst case assumption for this project. Since the health risk assessment using screening met data showed the health risk was below the District's significance thresholds, a refined HRA was not required.

VIII. Results

Cancer risk and chronic and acute non-cancer Hazard Index (HI) risk values were calculated and compared to significance thresholds for cancer risk and chronic and acute non-cancer risk adopted by the District's Board of Directors. The calculated risk values and applicable thresholds are as follows:

	Calculated Max Risks	Significance Threshold
Cancer risk:	5.15 /million	$\geq$10/million
Chronic non-cancer risk:	0.0205	$\geq$ 1
Acute non-cancer risk:	0.0291	$\geq$ 1

IX. Conclusion

Per District guidelines, if a facility's toxic emissions result in a cancer risk equal to or greater than 10 in a million, it is considered a *significant risk* facility. For non-cancer risk, if a facility's toxic emissions result in a Hazard Index equal to or greater than 1.0, it is considered a *significant risk* facility. The HRA screening results show that the installation of eleven natural gas fired boilers and two diesel fired emergency standby generators would not present significant risk to the school or the surrounding community. Therefore, based on the results of this HRA, Authority to Construct 13964 and Authority to Construct/Permit to Operate No.13963 will be issued for this project.

X. References

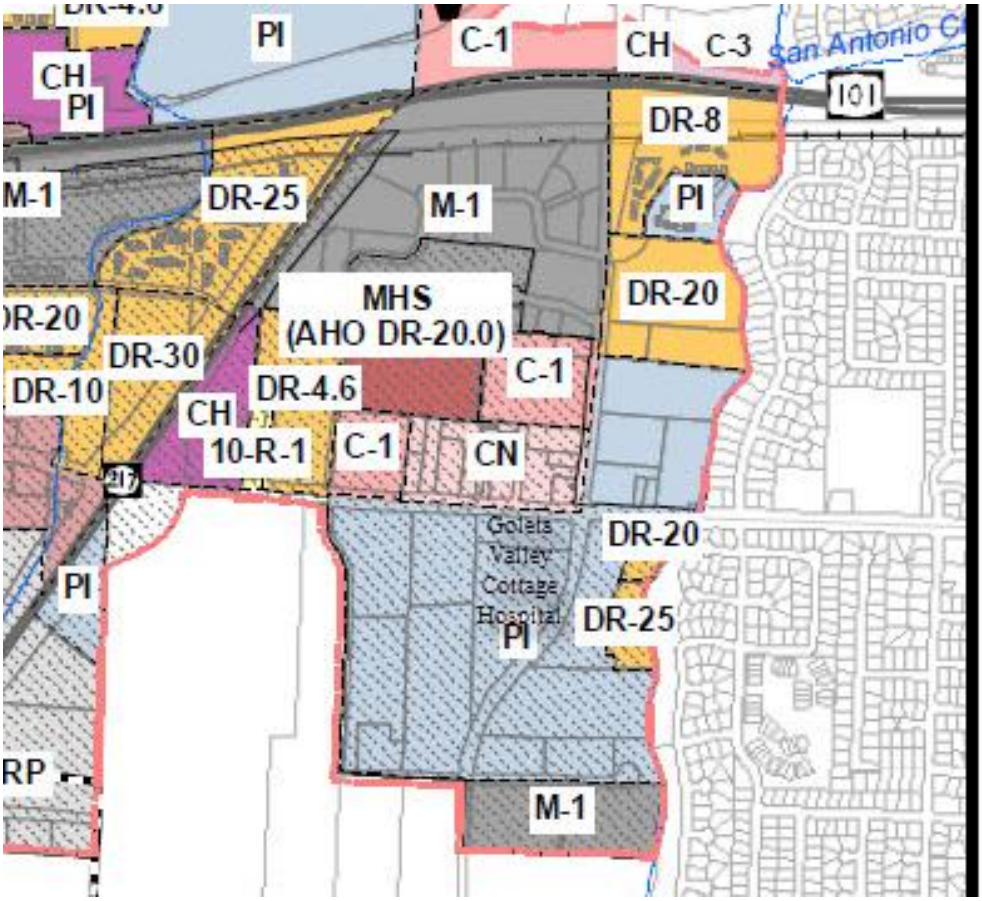
- Risk notification levels were adopted by Santa Barbara Air Pollution Control Board of Directors on June 1993. The risk notification levels were set at 10 per million for cancer risk and a Hazard Index of 1.0 for non-cancer risk.
- Risk reduction thresholds were adopted by Santa Barbara Air Pollution Control Board of Directors on September 17, 1998. These risk reduction thresholds were set at the same level as public notification thresholds, i.e., 10 per million for cancer risk and a Hazard Index of 1.0 for non-cancer risk.
- Ventura County Air Pollution Control District's *AB 2588 Natural Gas Combustion Emission Factors* (http://www.vcapcd.org/pubs/Engineering/AirToxics/combem.pdf).
- USEPA AP-42 Table 1.4-4 *Emission Factors for Metals from Natural Gas Combustion* (July, 1997) (http://www.epa.gov/ttn/chief/ap42/ch01/final/c01s04.pdf).

XI. Attachments

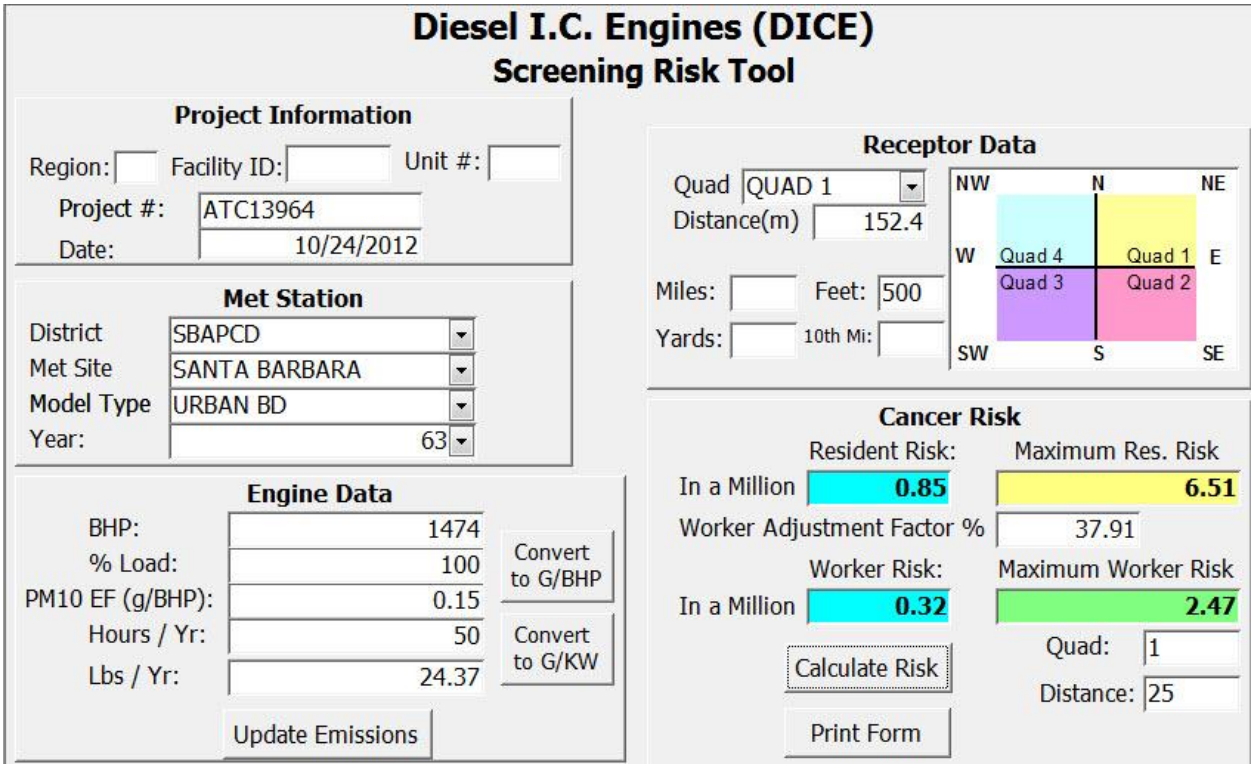
A. Goleta Valley Cottage Hospital Neighboring Parcel Land-Use Designation
B. Diesel IC Engine Screening Risk Tool Output

Source parameter data and HRA input and output files may be found in the following location: \\sbcapcd.org\toxics\Sources\SSID03909GoletaValleyCottageHospital\ATC 13964 HRA Screening (Nearest Receptor).xls

Attachment A – Goleta valley Cottage Hospital Neighboring Parcel Land-Use Designation



Attachment B - Diesel IC Engine Screening Risk Tool Output



ATTACHMENT C
FEE CALCULATIONS

FEE STATEMENT
ATC No. 13963
FID: 03909 Goleta Valley Cottage Hospital / SSID: 03909

Santa Barbara County
Air Pollution Control District

Device Fee

Device No.	Device Name	Fee Schedule	Qty of Fee Units	Fee per Unit	Fee Units	Max or Min. Fee Apply?	Number of Same Devices	Pro Rate Factor	Device Fee	Penalty Fee?	Fee Credit	Total Fee per Device
114882	Emergency Backup Generator #1	A3	11.0550	476.20	Per 1 million Btu input	No	1	1	5,264.39	0.00	0.00	5,264.39
114883	Emergency Backup Generator #2	A3	11.0550	476.20	Per 1 million Btu input	No	1	1	5,264.39	0.00	0.00	5,264.39
	Device Fee Sub-Totals =								**$10,528.78**	**$0.00**	**$0.00**	
	Device Fee Total =											**$10,528.78**

Permit Fee

Fee Based on Devices **10,528.78**

Fee Statement Grand Total = $10,528

Notes:

(1) Fee Schedule Items are listed in District Rule 210, Fee Schedule "A".
(2) The term "Units" refers to the unit of measure defined in the Fee Schedule.

ATTACHMENT D
PERMITTEE COMMENTS

1. It is important to incorporate a "source compliance demonstration period" (SCDP) as part of Condition #22 – Initial Operations and District Inspection. These (2) diesel fired emergency standby generators are installed at the hospital, but have not yet been performance tested. The hospital is planning on phasing the start up/testing of new equipment, commencing with these engines, beginning mid-April. The hospital is requesting a 180-day SCDP with an additional possible 180-day extension if needed. This is important since this is a new hospital with new processes/systems on the verge of start up. The hospital will make an effort to phase the testing of these engines, so that they will not be operating simultaneously or at the same time as the existing single (1) permitted standby generator located at the site. Inclusion of a SCDP condition is important in order to make adjustments to the permit if found to be necessary during performance testing.

   District Response: A source compliance demonstration period condition has been added into the permit. The

2. Permit Condition #2d states that initial start up hours shall not exceed 5 hours. The hospital feels that this is not sufficient for performance testing of these engines in conjunction with the start up of a new hospital. The hospital is requesting initial start to *not exceed 50 hours* (over the course of the entire SCDP). Performance testing/engine run time will be documented as part of Permit Condition #4 – Recordkeeping.

   District Response: