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Authority to Construct/Permit to Operate 14225

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EQUIPMENT OWNER:

Sansum Clinic

320420

EQUIPMENT OPERATOR:

Sansum Clinic

EQUIPMENT LOCATION:

4151 Foothill Road, Santa Barbara

STATIONARY SOURCE/FACILITY:

Sansum - Foothill

SSID: 11189

FID: 11446

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.

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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 ATCM¹, 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 testing² 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. At-School and Near-School Provisions: The stationary emergency standby diesel-fueled CI engine(s) subject to this permit may not be operated for non-emergency use, including maintenance and testing, whenever there is a school sponsored activity.
 - e. 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.

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

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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 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

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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: enr@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: enr@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 can not 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* -

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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.

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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 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 Compliance Manager (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

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required to verify that the equipment and its operations are in compliance with local, State and Federal regulations and the permit conditions herein.

AIR POLLUTION CONTROL OFFICER

DATE

Attachments:

- Table 1 – Mass Emission Limits
- Table 2 – Emission Standards
- Permit Equipment List
- Permit Evaluation for Authority to Construct/Permit to Operate 14225

Notes:

- Reevaluation Due Date: October 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.

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TABLE 1. MASS EMISSION LIMITS

Device ID #	NO _x		ROC		CO		SO _x		PM		PM10	
	lb/day	tpy	lb/day	tpy	lb/day	tpy	lb/day	tpy	lb/day	tpy	lb/day	tpy
386444	14.98	0.19	1.00	0.01	8.66	0.11	0.02	0.01	0.50	0.01	0.50	0.01

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

Device ID #	NO _x	ROC	CO	SO _x	PM	PM10
386444	4.50	0.30	2.60	0.01	0.15	0.15

Table Notes:

- (a) Mass emission limits based on allowable maintenance and testing hours.
- (b) NO_x as NO₂. SO_x as SO₂. 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.

PERMIT EQUIPMENT LIST

<i>Device ID #</i>	386444	<i>Maximum Rated BHP</i>	755
<i>Device Name</i>	Emergency Backup Generator	<i>Serial Number</i>	TBD
<i>Engine Use</i>	Electrical Power	<i>EPA Engine Family Name</i>	DCEXL015.AAJ
<i>Manufacturer</i>	Cummins	<i>Operator ID</i>	
<i>Model Year</i>	2013	<i>Fuel Type</i>	CARB Diesel - ULSD
<i>Model</i>	QSX15-G9		
<i>DRP/ISC?</i>	No	<i>Healthcare Facility?</i>	Yes
<i>Daily Hours</i>	2.00	<i>Annual Hours</i>	50
<i>Location</i>	Building "A", 4151 Foothill Road, Santa Barbara		
<i>Note</i>			
<i>Device Description</i>	Tier 2, turbocharged, aftercooled, diesel-fired internal combustion engine.		



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PERMIT EVALUATION FOR AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 14225

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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.

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:

$$\begin{aligned} E1, \text{ lb/day} &= \text{Engine Rating (bhp)} * \text{EF (g/bhp-hr)} * \text{Daily Hours (hr/day)} * (\text{lb}/453.6 \text{ g}) \\ E2, \text{ tpy} &= \text{Engine Rating (bhp)} * \text{EF (g/bhp-hr)} * \text{Annual Hours (hr/yr)} * (\text{lb}/453.6 \text{ g}) * (\text{ton}/2000 \text{ lb}) \end{aligned}$$

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 Sansum - Foothill is equal to the potential to emit. 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.

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PERMIT EVALUATION FOR AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 14225

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6.0 OFFSETS/ERCs

Offsets: The emission offset thresholds of Regulation VIII are not exceeded.

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 3.70 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.
- Operation of the engine for 50 hrs./year for maintenance and testing.
- Worst-case minimum distance from the engine to the property boundary is 12 feet.

Acute and chronic non-cancer risk was not assessed. 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.

10.0 PUBLIC and AGENCY NOTIFICATION PROCESS/COMMENTS ON DRAFT PERMIT

This project is subject to public review for 30 days.

11.0 FEE DETERMINATION

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

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**PERMIT EVALUATION FOR
AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 14225**

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12.0 RECOMMENDATION

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

_____	_____	_____	_____
AQ Engineer/Technician	Date	Supervisor	Date

13.0 ATTACHMENT(S)

- Fee Statement
- IDS Tables
- Air Toxics Documentation

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ATTACHMENT
Fee Statement

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ATTACHMENT
IDS Tables

PERMIT POTENTIAL TO EMIT

	NO _x	ROC	CO	SO _x	PM	PM ₁₀
lb/day	14.98	1.00	8.66	2.00	0.50	0.50
lb/hr						
TPQ						
TPY	0.19	0.01	0.11	0.01	0.01	0.01

FACILITY POTENTIAL TO EMIT

	NO _x	ROC	CO	SO _x	PM	PM ₁₀
lb/day	14.98	1.00	8.66	2.00	0.50	.050
lb/hr						
TPQ						
TPY	0.19	0.01	0.11	0.01	0.01	0.01

FACILITY NEI90

	NO _x	ROC	CO	SO _x	PM	PM ₁₀
lb/day	14.98	1.00	8.66	2.00	0.50	0.50
lb/hr						
TPQ						
TPY	0.19	0.01	0.11	0.01	0.01	0.01

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.
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ATTACHMENT
AIR TOXICS DOCUMENTATION

Diesel I.C. Engines (DICE) Screening Risk Tool			
Project Information		Receptor Data	
Region: <input type="text"/>	Facility ID: <input type="text" value="11446"/>	Unit #: <input type="text"/>	Quad: <input type="text" value="QUAD 1"/>
Project #: <input type="text" value="A/P 14225"/>	Distance(m): <input type="text" value="3.66"/>		
Date: <input type="text" value="7/2/2013"/>	Miles: <input type="text"/>	Feet: <input type="text" value="12"/>	
	Yards: <input type="text"/>	10th Mi: <input type="text"/>	
Met Station		Cancer Risk	
District: <input type="text" value="SBAPCD"/>	Met Site: <input type="text" value="SANTA BARBARA"/>	Resident Risk:	Maximum Res. Risk
Model Type: <input type="text" value="URBAN BD"/>	Year: <input type="text" value="63"/>	In a Million: <input type="text" value="3.70"/>	<input type="text" value="3.70"/>
Engine Data		Worker Adjustment Factor %: <input type="text" value="37.91"/>	Worker Risk:
BHP: <input type="text" value="755"/>	<input type="text" value="100"/>	In a Million: <input type="text" value="1.40"/>	Maximum Worker Risk
% Load: <input type="text" value="100"/>	<input type="text" value="0.15"/>	<input type="text" value="1.40"/>	<input type="text" value="1.40"/>
PM10 EF (g/BHP): <input type="text" value="0.15"/>	Hours / Yr: <input type="text" value="50"/>	<input type="text" value="Calculate Risk"/>	Quad: <input type="text" value="1"/>
Lbs / Yr: <input type="text" value="12.48"/>	<input type="text" value="Convert to G/BHP"/>	<input type="text" value="Print Form"/>	Distance: <input type="text" value="25"/>
<input type="text" value="Convert to G/KW"/>			
<input type="text" value="Update Emissions"/>			