Mojave Desert Air Quality Management District
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Eldon Heaston, Executive Director

DOCKET	
09-AFC-10	
DATE	JUL 30 2010
RECD.	AUG 05 2010

July 30, 2010

John Kessler, Project Manager
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814

Re: Final Decision/Determination for Rice Solar Energy Project
Docket 09-AFC-10

Dear Mr. Kessler:

The Mojave Desert Air Quality Management District (District) has completed the final decision on the proposed Rice Solar Energy Project to be located near the junction of SR 62 and Blythe-Midland Road, and near the sparse remains of the abandoned town of Rice, California on privately owned holding of 3,324 acres. Enclosed please find the Final Decision/Determination document, prepared pursuant to District Regulation XIII.

If you have any questions regarding this action or the enclosure, please contact Samuel J. Oktay, PE, Air Quality Engineer, at (760) 245-1661, x1610.

Sincerely,

Alan De Salvio
Supervising Air Quality Engineer

enclosure

cc: Director, USEPA Region 9
Chief, Stationary Source Division, CARB
Brenner Munger, CEC, Air Resources Engineer (via e-mail)
Jerry Salamy, CH2M Hill, Principal Project Manager (via e-mail)

Final Decision/Determination

Rice Solar Energy Project Located On Privately Owned Parcel In Eastern Riverside County, California

A. Introduction

The Mojave Desert Air Quality Management District (MDAQMD or "District") has prepared this document Pursuant to District Rule 1306, Electrical Energy Generating Facilities. Previously, the MDAQMD submitted its Preliminary Determination Document (PDD) to the USEPA Region 9, the California Energy Commission (CEC), and the California Air Resources Board (CARB), on June 10, 2010. Additionally, the PDD was publically noticed with a public comment deadline of July 19, 2010; subsequent public comments were not received. The MDAQMD did receive comments from the CEC, and CH2MHill, the applicant's environmental consulting company. Those comments are provided as Attachment 1,and 2 respectively at the end of this document. The MDAQMD incorporated the intent of most of the comments into this document.

1. Application and Setting

The District received a Request for Agency Participation and Application for Certification (AFC) for the **Rice Solar Energy Project (RSEP) dated October 20, 2009.** Subsequently the District submitted a Notification of Intent to Participate (NOI) letter dated November 5, 2009, indicating that the MDAQMD pursuant to District Rule 1306 intended to participate in the permitting process as well as the AFC for the **RSEP.**

The proposed project is a solar electric generating facility consisting of a large field of mirrors or heliostats that concentrate the sun's energy onto a central receiver positioned on top of a tower, storing energy in a liquid salt heat transfer fluid. The hot liquid salt is then routed to a series of heat exchangers to produce steam and subsequently electricity with a Rankine Cycle steam system. The project will have a generating capacity of 150 megawatts (MW), and capable of delivering 450,000 megawatt hours (MWh) of renewable energy annually.

Air pollutant emissions during the operation of the facility are limited to diesel fueled emergency electrical generators, emergency diesel fueled fire pumps, and emissions from vehicles for array maintenance and general facility operations. Temporary, propane, LNG, or CNG fired heaters will be used to melt the salt blend and condition the salt, and construction of the facility will result in on-road and off-road construction emissions and fugitive emissions associated with grading operations.

[1]The RSEP design includes the following elements.

- Heliostat field with up to 17,500 tracking heliostats, each approximately 24 feet tall by 28 feet wide, arranged in a circular array that will reflect and concentrate the sun's energy onto a

[1] RICE Executive Summary

tower-mounted receiver (The field covers 1,410 acres, which includes the 80-acre power block near its center.)

- A concrete central tower approximately 540 feet tall, upon which is mounted a receiver approximately 100 feet tall topped with a small maintenance crane, for an overall structure height of 653 feet
- A liquid salt storage system featuring insulated "hot" and "cold" salt storage tanks
- A steam turbine generator system rated at 150 MW (net)
- A 20-cell air-cooled condenser (ACC) to provide water-free cooling and condensing of the steam turbine exhaust
- Two onsite water wells to provide water for heliostat washing, steam cycle makeup and other process uses in an amount not expected to exceed 180 acre-feet per year
- One wet surface air cooler (WSAC) with a 2,732 gallon per minute recirculation rate and a 0.0005% drift rate used to reject heat from the ancillary service system
- Three lined evaporation ponds of approximately 5 acres each to capture all process wastewater discharge from the project's water treatment system, process blowdown, and stormwater drainage from within equipment areas
- Two emergency diesel generators and associated equipment to supply emergency backup power for the safe shut-down and protection of vital equipment and facilities
- Onsite fire protection facilities, which consist of two sets of electric-motor-driven and diesel-engine-driven fire pumps and related fire detection and protection equipment

The RSEP site is a privately owned parcel located in eastern Riverside County. The site is adjacent to State Route (SR) 62, which parallels a portion of the Arizona-California Railroad and the Colorado River Aqueduct, near the junction of SR 62 and Blythe-Midland Road, and near the sparse remains of the abandoned town of Rice, California. The nearest occupied residence is approximately 15 miles northeast at the rural crossroads community of Vidal Junction, California. The nearest town is Parker, Arizona (population 3,181), located approximately 32 miles east. A small permanent residential settlement is located at the Metropolitan Water District of Southern California's Iron Mountain Pumping Plant, approximately 17 miles west.

The RSEP is within a larger, privately owned holding that is 3,324 acres (the ownership property). Within this larger property, the RSEP is sited within a new square-shaped parcel (the project parcel) that will be created by merging what are currently four different assessor's parcels, each of them a discrete section (square mile) of land, resulting in a single 2,560-acre parcel. Within this project parcel will be the administration buildings area, heliostat field with power block, and evaporation pond areas, (collectively, the project site or facility site) totaling 1,410 acres, that will be surrounded by a security fence. Areas outside the facility site but within the project parcel will not be fenced or developed or disturbed as part of the RSEP.

Additionally, the proposed site is in the Mojave Desert Air Basin (MDAB), which includes the desert portion of San Bernardino County and those portions of Riverside County commonly known as the Palo Verde Valley.

The MDAQMD is in attainment for NO_2, SO_2, and CO with respect to both state and national standards. The eastern portion of Riverside County (including the project site) has been designated by USEPA as "unclassified/attainment" for the federal 8-hour ozone standard and non-attainment for the 1-hour and 8-hour state ozone standards. Riverside County is unclassified for the federal PM_{10} standard, and MDAQMD is a nonattainment area for the state standard; eastern Riverside County, where the RSEP project is located, is unclassified for the state $PM_{2.5}$ standard, and is unclassified/attainment for the federal standard.

The majority of emission from this facility will occur as a result of grading and earth moving operations and subsequent maintenance of the heliostat field. The maintenance roads will not be paved, but will be treated with soil stabilizers and water to minimize particulate (dust) emissions that will occur during maintenance operations. The Applicant will be mitigating these emissions through the CEQA process, in accordance with CEC requirements. The CEC is the Lead agency for projects of this type.

The MDAQMD will require the Applicant to comply with all applicable MDAQMD rules and regulations, including but not necessarily limited to: Rule 401, Visible Emissions; Rule 402, Nuisance, and Rule 405 Solid Particulate Matter – Weight.

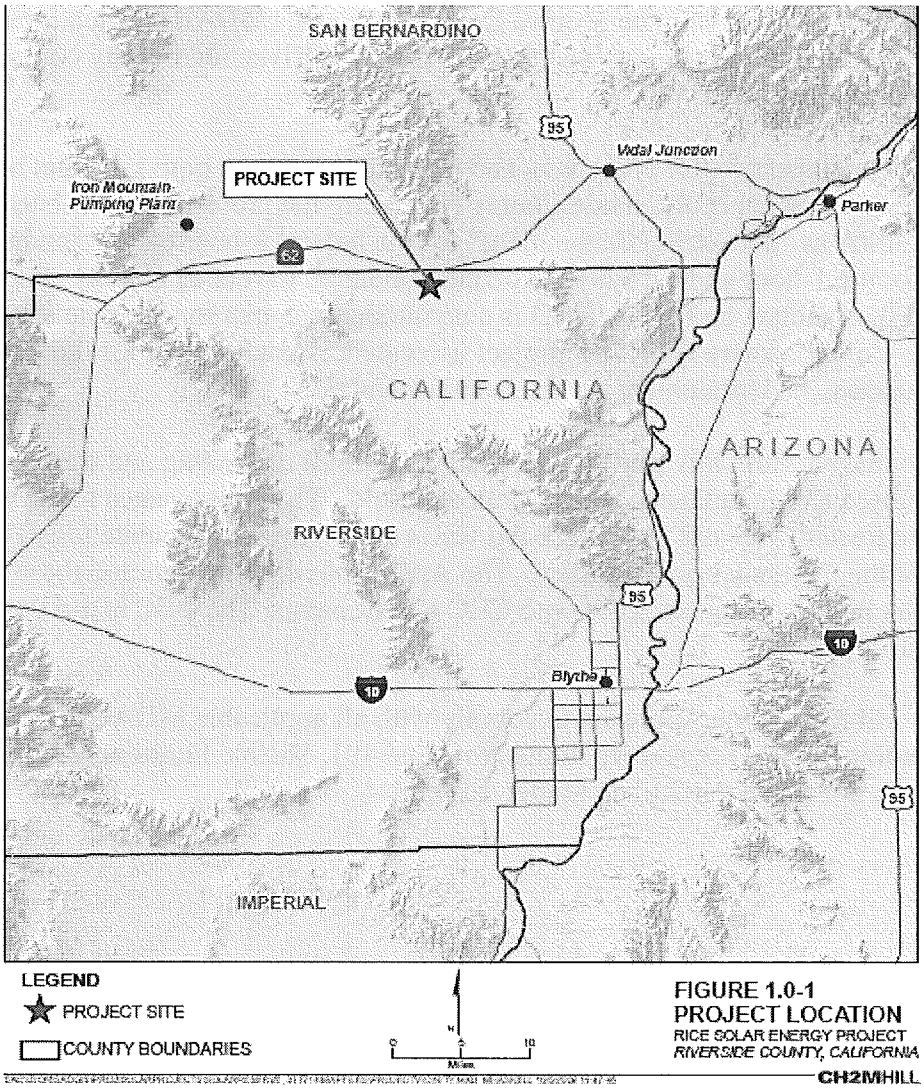

Figure 1: Rice Solar Energy Project Site Location

2. Intent to Participate- Preliminary Report (Rule 1306B(2))

On October 20, 2009, pursuant to District Rule 1306(B)(2)(b), the MDAQMD submitted a NOI letter. Additionally, the District will summarize any Best Available Control Technology (BACT) requirements, and provide an assessment as to whether this project will meet the requirements of District Regulation XIII and all other Rules and Regulations of the MDAQMD, including a preliminary list of operating conditions.

B. Laws, Ordinances, Regulations, and Standards (LORS)

Requirements of federal, state, and local jurisdictions are discussed herein, including a discussion regarding compliance with applicable requirements.

The U.S. Environmental Protection Agency (EPA) implements and enforces the requirements of many of the federal environmental laws. EPA Region 9, which has offices in San Francisco, administers federal air programs in California. The federal Clean Air Act, as most recently amended in 1990, provides EPA with the legal authority to regulate air pollution from stationary sources such as the RSEP. EPA has promulgated the following stationary source regulatory programs to implement the requirements of the federal Clean Air Act:

- Prevention of Significant Deterioration (PSD)
- New Source Review (NSR)
- Title IV: Acid Rain Program
- Title V: Operating Permits
- National Standards of Performance for New Stationary Sources (NSPS)
- National Emission Standards for Hazardous Air Pollutants (NESHAPs)

1. Prevention of Significant Deterioration (PSD) Program Authority:

Clean Air Act §160-169A, 42 USC §7470-7491; 40 CFR Parts 51 and 52

[Although this program is normally implemented at the local level with federal oversight, it is presently implemented in the MDAQMD by EPA Region IX]

Requires pre-construction review and permitting of new or modified major stationary sources of air pollution to prevent significant deterioration of ambient air quality. PSD applies to pollutants for which ambient concentrations do not exceed the corresponding National Ambient Air Quality Standards (NAAQS) (i.e., attainment pollutants). The PSD program allows new sources of air pollution to be constructed, or existing sources to be modified, while preserving the existing ambient air quality levels, protecting public health and welfare, and protecting Class I areas (e.g., national parks and wilderness areas).

The RSEP will not be a major stationary source, and therefore, is not subject to the PSD program.

2. New Source Review Authority:

Clean Air Act §171-193, 42 USC §7501 et seq.; 40 CFR Parts 51 and 52
Requires pre-construction review and permitting of new or modified major stationary sources of air pollution to allow industrial growth without interfering with the attainment and maintenance of NAAQS.

New source review jurisdiction has been delegated to the MDAQMD.

3. Acid Rain Program Authority:

Clean Air Act §401 (Title IV), 42 USC §7651
Requires the monitoring and reporting of emissions of acidic compounds and their precursors. The principal source of these compounds is the combustion of fossil fuels. Therefore, Title IV

established national standards to monitor, record, and in some cases limit emissions of sulfur dioxide (SO_2) and oxides of nitrogen (NO_x) from electrical power generating facilities. These standards are implemented at the local level with federal oversight.

Title IV does not apply to the RSEP, because there are no combustion sources associated with power generation (i.e., power generation occurs with solar thermal energy production).

Administering Agency is the MDAQMD, with EPA Region 9 oversight.

4. Title V Operating Permits Program Authority:

Clean Air Act §501 (Title V), 42 USC §7661
Requires the issuance of operating permits that identify all applicable federal performance, operating, monitoring, recordkeeping, and reporting requirements. Title V applies to major facilities, Phase II Acid Rain facilities, subject solid waste incinerator facilities, and any facility listed by EPA as requiring a Title V permit.

EPA has delegated authority for this program to MDAQMD.

Emissions from the RSEP are below Title V applicability threshold, therefore the RSEP is not subject to the Title V Operating Permits Program.

Administering Agency is the MDAQMD, with EPA Region 9 oversight.

5. National Standards of Performance for New Stationary Sources Authority:

Clean Air Act §111, 42 USC §7411; 40 CFR Part 60
Establishes standards of performance to limit the emission of criteria pollutants (air pollutants for which EPA has established NAAQS) from new or modified facilities in specific source categories. These standards are implemented at the local level (MDAQMD) with federal oversight. The applicability of these regulations depends on the equipment size, process rate, and/or the date of construction, modification, or reconstruction of the affected facility. NSPS Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines is applicable to the emergency and prime powered diesel engines.

Administering Agency is the MDAQMD, with EPA Region 9 oversight.

6. National Emission Standards for Hazardous Air Pollutants

Authority: Clean Air Act §112, 42 USC §7412
Establishes national emission standards to limit emissions of hazardous air pollutants (HAPs, or air pollutants identified by EPA as causing or contributing to the adverse health effects of air pollution, but for which NAAQS have not been established) from major sources of HAPs in specific source categories. These standards are implemented at the local level (MDAQMD) with

federal oversight. As discussed below, the RSEP will not be a major source of HAPS, and is not subject to NESHAPs.

Administering Agency is the MDAQMD, with EPA Region 9 oversight.

7. Consistency with Federal Requirements

The MDAQMD has been delegated authority by the EPA to implement and enforce most federal requirements applicable to the project, including new source performance standards and new source review for nonattainment pollutants. Compliance with the MDAQMD regulations assures compliance and consistency with the corresponding federal requirements. The project would also be required to comply with the Federal Acid Rain requirements (Title IV). The MDAQMD has delegated authority to implement Title IV through its Title V permit program; the RSEP does not require a Title V Federal Operating Permit.

8. State LORS

The California Air Resources Board (CARB) was created in 1968 by the Mulford-Carrell Air Resources Act, through the merger of two other state agencies. CARB's primary responsibilities are to develop, adopt, implement, and enforce the state's motor vehicle pollution control program; to administer and coordinate the state's air pollution research program; to adopt and update, as necessary, the California Ambient Air Quality Standards (CAAQS); to review the operations of the local air pollution control districts (APCDs); and to review and coordinate preparation of the State Implementation Plan (SIP) for achievement of the NAAQS. CARB has implemented the following state or federal stationary source regulatory programs in accordance with the requirements of the federal Clean Air Act and California Health and Safety Code (H&SC):

- State Implementation Plan
- California Clean Air Act
- Toxic Air Contaminant Program
- Airborne Toxic Control Measure for Stationary Compression-Ignition Engines
- Nuisance Regulation
- Air Toxics "Hot Spots" Act
- California Energy Commission (CEC) and CARB Memorandum of Understanding

9. State Implementation Plan

Authority: H&SC §39500 et seq.
The State Implementation Plan (SIP) demonstrates the means by which all areas of the state will attain and maintain NAAQS within the federally mandated deadlines, as required by the federal Clean Air Act. CARB reviews and coordinates preparation of the SIP. Local districts must adopt new rules or revise existing rules to demonstrate that resulting emission reductions, in conjunction with reductions in mobile source emissions, will result in attainment of the NAAQS. The relevant MDAQMD Rules and Regulations that have also been incorporated into the SIP are discussed in the local LORS section of this document.

Administering Agency is the MDAQMD, with CARB and EPA Region 9 oversight.

10. California Clean Air Act

Authority: H&SC §40910 – 40930
Established in 1989, the California Clean Air Act requires local districts to attain and maintain both national and state ambient air quality standards at the "earliest practicable date." Local districts must prepare air quality plans demonstrating the means by which the ambient air quality standards will be attained and maintained. The relevant components of the MDAQMD Air Quality Plan are discussed within the local LORS section of this document.

Administering Agency is the MDAQMD, with CARB oversight.

11. Toxic Air Contaminant Program

Authority: H&SC §39650 – 39675
Established in 1983, the Toxic Air Contaminant Identification and Control Act created a two-step process to identify toxic air contaminants (TACs) and control their emissions. CARB identifies and prioritizes the pollutants to be considered for identification as TACs. CARB assesses the potential for human exposure to a substance, while the Office of Environmental Health Hazard Assessment (OEHHA) evaluates the corresponding health effects. Both agencies collaborate in the preparation of a risk assessment report, which concludes whether a substance poses a significant health risk and should be identified as a toxic air contaminant. In 1993, the Legislature amended the program to include the federally identified HAPs as TACs. CARB reviews the emission sources of an identified toxic air contaminant and, if necessary, develops air toxics control measures to reduce the emissions.

Administering Agency is CARB

12. Airborne Toxic Control Measure for Stationary Compression-Ignition Engines

Authority: Title 17, California Code of Regulations, §93115
The purpose of this airborne toxic control measure (ATCM) is to reduce diesel particulate matter (DPM) and criteria pollutant emissions from stationary diesel-fueled compression ignition engines. The ATCM applies to stationary compression ignition engines with a rating greater than 50 brake horsepower. The ATCM requires the use of CARB-certified diesel fuel or equivalent, and limits emissions from, and operations of, compression ignition engines.

Administering Agency is MDAQMD and CARB

13. Nuisance Regulation

Authority: CA Health and Safety Code §41700

Provides that "no person shall discharge from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause injury or damage to business or property."

Administering Agency is MDAQMD and CARB

14. Air Toxic "Hot Spots" Act

Authority: H& SC §44300-44384; 17 CCR §93300-93347
Established in 1987, the Air Toxics "Hot Spots" Information and Assessment Act supplements the toxic air contaminant program, by requiring the development of a statewide inventory of air toxics emissions from stationary sources. The program requires affected facilities to prepare (1) an emissions inventory plan that identifies relevant air toxics and sources of air toxics emissions; (2) an emissions inventory report quantifying air toxics emissions; and (3) a health risk assessment, if necessary, to characterize the health risks to the exposed public. Facilities whose air toxics emissions are deemed to pose a significant health risk must issue notices to the exposed population. In 1992, the Legislature amended the program to further require facilities whose air toxics emissions are deemed to pose a significant health risk to implement risk management plans to reduce the associated health risks. This program is implemented at the local level with state oversight.

Administering Agency is the MDAQMD with CARB oversight.

15. CEC (California Energy Commission) and CARB Memorandum of Understanding

Authority: CA Pub. Res. Code §25523(a); 20 CCR §1752, 1752.5, 2300-2309 and Div. 2, Chap. 5, Art. 1, Appendix B, Part (k)
Provides for the inclusion of requirements in the CEC's decision on an AFC to assure protection of environmental quality; thus the AFC is required to include information concerning air quality protection.

Administering Agency is the CEC

16. Consistency with State Requirements

State law established local air pollution control districts and air quality management districts with the principal responsibility for regulating emissions from stationary sources. The RSEP is under the local jurisdiction of the MDAQMD, and compliance with MDAQMD regulations will assure compliance with state air quality requirements.

17. Local LORS

When the state's air pollution statutes were reorganized in the mid-1960s, local districts were required to be established in each county of the state. There are three different types of districts: county, regional (including the MDAQMD), and unified. In addition, special air quality management districts (AQMDs), with more comprehensive authority over non-vehicular sources, as well as transportation and other regional planning responsibilities, have been established by the Legislature for several regions in California. Local districts have principal responsibility to do the following:

- Develop plans for meeting the NAAQS and California ambient air quality standards;
- Develop control measures for non-vehicular sources of air pollution necessary to achieve and maintain both state and federal air quality standards;
- Implement permit programs established for the construction, modification, and operation of sources of air pollution;
- Enforce air pollution statutes and regulations governing non-vehicular sources; and
- Develop programs to reduce emissions from indirect sources.

Under the regulations that govern new sources of emissions, the project is required to secure a preconstruction Determination of Compliance (PDOC) from the MDAQMD, as well as demonstrate continued compliance with regulatory limits when the new equipment becomes operational. The preconstruction review includes demonstrating that the salt handling, melting, heating, conditioning systems; temporary emissions from prime power generators; and operational emergency power generators, emergency fire pumps, and the Wet Surface Air Cooler (WSAC) emissions will be minimized using best available control technology (BACT), if required, and will provide any necessary emission offsets.

This document fulfils the requirements of that pre-construction review.

18. Mojave Desert Air Quality Plans

Authority: H&SC §40914
Air quality plans define the proposed strategies, including stationary source and transportation control measures and new source review rules that will be implemented to attain and maintain the state ambient air quality standards. The relevant stationary source control measures and new source review requirements are discussed within the following MDAQMD Rules and Regulations.

Administering Agency is the MDAQMD with EPA Region 9 and CARB oversight.

19. Mojave Desert Air Quality Management District Rules and Regulations

Authority: H&SC §4000 et seq., H&SC §40200 et seq., MDAQMD Rules and Regulations establishes procedures and standards for issuing permits and establishes standards and limitations on a source-specific basis.

Administering Agency is the MDAQMD with EPA Region 9 and CARB oversight.

20. Authority to Construct

Regulation II—Permits, Rule 201 (Permit to Construct) specifies that any facility installing nonexempt equipment that causes or controls the emission of air pollutants must first obtain an Authority to Construct from the MDAQMD. Under Regulation XIII Rule 1306 (Electric Energy Generating Facilities) Section (E)(3)(b), the District's Final Determination of Compliance (FDOC) can act as an authority to construct for a power plant upon final approval of the project by the CEC.

The MDAQMD will issue District approved ATC permits approximately 15 days after the CEC issues its approval of RSEP.

21. Review of New or Modified Sources

Regulation XIII (New Source Review) implements the federal NSR and PSD programs, as well as the new source review requirements of the California Clean Air Act. The rule contains the following elements:
- BACT and Lowest Achievable Emission Rates (LAER)
- Emission offsets
- Air quality impact analysis (AQIA)

22. Best Available Control Technology (BACT)

BACT must be applied to any new or modified source which has a potential to emit 25 pounds per day or more of any nonattainment air pollutant or precursor to a non-attainment pollutant. The nonattainment air pollutants are ozone and its precursors NOx and volatile organic compounds (VOC), and particulate matter (PM_{10}) and its precursors NOx, SOx, and VOC.

The MDAQMD defines BACT (Rule 1301(K)(2)) for a non-major facility as the most stringent emission limitation or control technique that:
- Has been achieved in practice for the category or class of source; or
- Is any emission limitation or control technique determined to be technologically feasible and cost-effective; or
- Is contained in any SIP approved by EPA for such emission unit category, unless demonstrated to not be proven in field application, not be technologically feasible, or not be cost-effective.

The emergency electrical gensets used during the operational phase have the potential to emit above the MDAQMD BACT thresholds. Therefore, the gensets will be required to comply with the lowest emission thresholds associated with emergency engines in their class and category at the time of purchase. Although the WSAC does not exceed the BACT threshold of 25 lb/day, the Applicant has committed to the use of a high efficiency drift elimination system commonly applied as BACT for large cooling tower systems.

The prime power gensets do not trigger BACT thresholds; nonetheless these engines will meet BACT requirements as they will comply with the lowest emission thresholds associated with engines in their class and category.

23. Emission Offsets

The emission increases from a new or modified source which are greater than the offset thresholds shown in Table 1 below must be offset for emission increases of nonattainment pollutants (and their precursors). Table 1 summarizes the emissions and offset requirements for the construction and salt commissioning phases of the project. Table 2 summarizes the emissions and offset requirements during the operational phase of the project, on a calendar year basis. Tables 1 and 2 indicate that the non-fugitive emission increases from the RSEP are all below the MDAQMD offset thresholds. Therefore, no offsets are required under District regulations.

TABLE 1 Offset Emission Thresholds (Construction and Salt Commissioning Phase)

Pollutant	Offset Threshold* (tpy)	Rice Solar Energy Project Annual Emissions (tpy)	Offsets Required?
CO	100	**11.8**	**No**
Hydrogen Sulfide	10	**0.0**	**No**
Lead	0.6	**0.0**	**No**
PM10	15	**1.5**	**No**
NOx	25	**21.8**	**No**
SOx	25	**1.4**	**No**
TOC	25	**1.0**	**No**

* MDAQMD Regulation XIII, Rule 1303 (B)(1)

TABLE 2 Offset Emission Thresholds (Operations phase)

Pollutant	Offset Threshold* (tpy)	Rice Solar Energy Project Annual Emissions (tpy)	Offsets Required?
CO	100	**0.16**	**No**
Hydrogen Sulfide	10	**0.0**	**No**
Lead	0.6	**0.0**	**No**
PM10	15	**0.04**	**No**
NOx	25	**1.3**	**No**
SOx	25	**0.001**	**No**
TOC	25	**0.02**	**No**

* MDAQMD Regulation XIII, Rule 1303 (B)(1)

The following tables summarize the criteria pollutant emissions associated with the RSEP equipment permitted by the MDAQMD. It should be noted that Tables 1 and 3 assume that salt commissioning, construction, and operational emissions would all occur within the same 12 month period for the entire 12 month period. However, the Applicant has indicated that the fire pumps and emergency generators would not be operated for the maximum allowable hours during the construction and salt commission phase. The salt processing equipment and construction gensets will also be removed from the site shortly after the facility commences commercial operation. Therefore, the annual PTE emissions shown in Tables 1 and 3 provide a conservative PTE for the RSEP.

The following tables summarize criteria emissions associated with MDAQMD permittable equipment. An asterisks (*) indicates which equipment will be used during the operations phase (i.e., permanent equipment), unmarked equipment are all temporary equipment used for construction and salt commissioning activities.

Table 3: Construction and Salt Commissioning Phase PTE Emissions

Emissions			Max Daily PTE (pounds)						Max Annual (pounds)					
Permit Number	Equipment	Bhp	NOx	TOC	NOx & HC	SOx	CO	PM10	NOx	TOC	NOx & HC	SOx	CO	PM10
B010803	Isuzu	*98*	11.20		11.20	0.02	4.61	0.67	1699		1699	3.3	700	102
B010804	Isuzu	*98*	11.20		11.20	0.02	4.61	0.67	1699		1699	3.3	700	102
B010806	Isuzu	*98*	11.20		11.20	0.02	4.61	0.67	971		971	1.9	400	58
B010807	Isuzu	*98*	11.20		11.20	0.02	4.61	0.67	971		971	1.9	400	58
B010808	Isuzu	173	17.76		17.76	0.04	7.51	1.19	1924		1924	4.0	813	129
B010809	Isuzu	173	17.76		17.76	0.04	7.51	1.19	6482		6482	13.6	2740	434
B010810	Isuzu	173	17.76		17.76	0.04	7.51	1.19	6482		6482	13.6	2740	434
B010811	Isuzu	173	17.76		17.76	0.04	7.51	1.19	1539		1539	3.2	651	103
E010812	Caterpillar*	600	1.94		1.94	0.003	0.37	0.07	101		101	0.2	19	4
E010813	Caterpillar*	600	1.94		1.94	0.003	0.37	0.07	101		101	0.2	19	4
E010814	Caterpillar*	4020	45.1	0.9		0.05	5.6	0.3	1173	23.0		1.2	145	7
E010815	Caterpillar*	4020	45.1	0.9		0.05	5.6	0.3	1173	23.0		1.2	145	7
B010792	20 MMBtu/Hr	NA	5.10	6.55		9.83	49.14	4.59	185	238.33		357.5	1787	167
B010801	55 MMBtu/Hr	NA	14.02	18.02		27.04	135.18	12.62	1278	1643.19		2464.8	12324	1150
B010848	Salt Handling w-Baghouse C010850	Unknown						2.06						151
C010830	Salt Conditioning Wet Scrubber	Unknown	259.6						17913					
		Total Lbs/Day	489	26	120	37	245	27	43688	1928	21966	2870	23583	2911
							TONS/YEAR		21.8	1.0	11.0	1.4	11.8	1.5

Table 4: Operations Phase PTE Emissions

Emissions			Max Daily PTE (pounds)						Max Annual (pounds)					
Permit Number	Equipment	Bhp	NOx	TOC	NOx & HC	SOx	CO	PM10	NOx	TOC	NOx & HC	SOx	CO	PM10
B010889	WSAC	NA						0.36						67
E010812	Caterpillar	600	1.94		1.94	0.00	0.37	0.07	101		101	0.2	19	4
E010813	Caterpillar	600	1.94		1.94	0.00	0.37	0.07	101		101	0.2	19	4
E010814	Caterpillar	4020	45.1	0.9		0.05	5.6	0.3	1173	23.0		1.2	145	7
E010815	Caterpillar	4020	45.1	0.9		0.05	5.6	0.3	1173	23.0		1.2	145	7
		Total Lbs	94.1	1.77	3.9	0.097	12	1	2547	46.1	201	2.7	329	88
							TONS/YEAR		1.3	0.023	0.10	0.001	0.16	0.04

24. Toxic Risk Management

MDAQMD Reg XIII, Rule 1320 (Permits – Toxics New Source Review).
The purpose of this rule is to provide for the review of new and modified sources of Toxic Air Contaminants (TAC) emissions in order to evaluate potential public exposure and health risk, to mitigate potentially significant health risks resulting from these exposures, and provide net health risk benefits by improving the level of control when existing sources are modified or replaced.

[2]TBACT shall be applied to any new or modified source of TACs where the facility or individual source cancer risk is greater than 1.0 in a million (10-6). An ATC or PTO will be denied if the facility cancer risk exceeds 10 in a million, or the chronic hazard index exceeds 1.0, or the acute hazard index exceeds 1.0.

The predicted cancer risk at the point of maximum impact (PMI) for the project is 0.77 in a million using the OEHHA derived adjusted method. The maximum predicted chronic and acute hazard indices at the PMI are 0.0058 and 0.59, respectively. The values are below the ATC or PTO facility thresholds for cancer risk of 1 in a million and the chronic and acute hazard index of 1.0. The nearest residential, worker, and sensitive receptors are more than 6 miles from the proposed project site. Therefore, the potential cancer, chronic, and acute risk were only reported for the point of maximum impact (PMI) in the AFC. The modeled PMI health risk values for the overall project will be compared to the following de minimus thresholds:

- Incremental increase in cancer risk of one in 1 million individuals
- Chronic hazard index of 1.0
- Acute hazard index of 1.0

Predicted cancer risk and hazard indices less than the above thresholds would be considered an acceptable increase in risk associated with the proposed project.

District Rule 1306 requires the District to make a BACT assessment for all Electrical Energy Generating Facilities (EEGF) proposed in the District. Pursuant to this requirement, the District has calculated the proposed equipment emissions and found that based on the emission factors supplied by the Applicant and the daily operating hours for each piece of permitted equipment, the BACT thresholds of 25 lbs/day are triggered by the large Caterpillar emergency gensets, which shall meet BACT requirements. The Applicant has committed to the purchase of gensets which comply with the lowest emission thresholds associated with emergency engines in their class and category at the time of purchase. Additionally, the Applicant has committed to the purchase of Tier III off-road prime power diesel powered gensets, which, at this time, are the lowest emitting diesel engine available in their class and category, and meets BACT requirements. Although the WSAC does not exceed the BACT threshold of 25 lb/day, the applicant has committed to the use of a high efficiency drift elimination system commonly applied as BACT for large cooling tower systems.

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[2] Rice Solar Energy Project Application Section 5.1 Air Quality

C. Air Quality

The MDAQMD has been designated an attainment area for NO_2, SO_2, and CO with respect to both state and national standards. The eastern portion of Riverside County (including the project site) has been designated by USEPA as "unclassified/attainment" for the federal 8-hour ozone standards and non-attainment for the 1-hour and 8-hour state standards. Riverside County is unclassified for the federal PM_{10} standard, and MDAQMD is a nonattainment area for the state standard; eastern Riverside County, where the RSEP project is located, is unclassified for the state $PM_{2.5}$ standard, and is unclassified/attainment for the federal standard.

D. Renewable Energy

Rice Solar Energy Project will assist California in repositioning its generation asset portfolio to use more renewable energy and reduce greenhouse gas (GHG) emissions in conformance with state policies as set forth in SB 1078 and AB 32. It will help meet the 20 percent renewable goal in general, but not by the 2010 deadline, and help meet the recommended 33 renewable goal by 2020. Additionally, it will help diversify the state's electricity sources, reducing its dependence on natural gas-fired power.

E. Particulate Emission Control

Particulate emissions from the diesel fueled emergency generators will be minimized through the use of an engine that meets CARB's diesel Air Toxics Control Measure (Diesel ATCM). Because the Applicant has committed to complying with the lowest emission thresholds associated with emergency engines in their class and category at the time of purchase, the Applicant's diesel engines will meet this requirement. Additionally, the WSAC will be equipped with a drift eliminator which achieves a particulate control rate of 0.0005% or less.

Another source of particulate emissions will be fugitive dust resulting from grading and earth moving during the construction phase of the project. During the operations phase of the project, fugitive dust emissions may result from service vehicles and wash trucks traveling along unpaved service roads inside the heliostat field at inherently low speeds.

The Applicant will be mitigating these fugitive emissions in accordance with the CEC and the CEQA process. The MDAQMD will not be directly involved with those negotiations, but will monitor the project through the certification process.

F. CEC Review

Regulation XIII, Rule 1306 establishes a procedure for coordinating MDAQMD review of power plant projects with the CEC's AFC process. Pursuant to this rule, the MDAQMD reviews the AFC and issues a FDOC for a proposed project. Per MDAQMD Rule 1306(E)(3)(b), the FDOC confers the same rights and privileges as an Authority to Construct (ATC) after the CEC approves the project. However, consistent with past practices by the MDAQMD, ATC permits will be issued for RSEP consistent with the terms of the FDOC. The Owner/Operator may begin constructing and installing equipment permitted by the MDAQMD after issuance of the ATC.

G. APPLICABLE MDAQMD RULES & REGULATIONS

1. MDAQMD Regulation II — *Permits*

Rule 201 – *Permit to Construct*
States that a person shall not 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 Air Pollution Control Officer (APCO). *The Applicant has submitted or is in the process of submitting all required applications.* Furthermore, District Rule 1306 - *Electric Energy Generating Facilities* Section (E)(3)(b), states that the District's FDOC acts as an ATC for a power plant upon approval of the project by the CEC.

Rule 203 – *Permit to Operate*
States that a person shall not operate or use any equipment, the use of which may cause the issuance of air contaminants or the use of which may reduce or control the issuance of air contaminants, without first obtaining a written permit from the APCO or except as provided in Rule 202. The equipment shall not be operated contrary to the conditions specified in the permit to operate. *The Applicant has submitted or is in the process of submitting all required applications.*

Rule 221 – *Federal Operating Permit Requirement*
Requires certain facilities to obtain Federal Operating Permits (FOP); *this facility is below title V thresholds and therefore a Title V FOP is not required.*

2. MDAQMD Regulation IV— *Prohibitory Rules*
The general prohibitory rules in Regulation IV applicable to the project include the following:

Rule 401 - *Visible Emissions*
Prohibits visible emissions as dark as, or darker than, Ringelmann No. 1 for periods greater than three minutes in any hour.

The proposed diesel fired emergency engines will be required to meet the highest available off-road EPA Tier engine rating standards, and burn California diesel fuel, not to exceed 15 ppm sulfur content. Additionally, the WSAC will be equipped with a BACT drift eliminator. With proper operation, and maintenance, visible emissions from these devices are not expected to exceed the visible emission standards.

Rule 402 - *Nuisance*
Prohibits the 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 endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

The RSEP shall not emit odorous pollutants, and is expected to comply with this rule.

Rule 403 - *Fugitive Dust*
Prohibits visible dust emissions off property, which are a result of transport, handling, construction, or storage activity; requires dust minimization during grading and clearing of land, and limits the difference between upwind and downwind PM concentrations of 100 µg/cubic meter (5-hour average); requires removal of particulate matter from equipment prior to movement on paved streets.

Construction and maintenance emission mitigation measures, including the use of water and/or dust suppressant materials, will be required to ensure compliance with this requirement.

Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*
The project lies outside the Mojave Desert Planning Area.

Rule 404 - *Particulate Matter Concentration*
Prohibits PM emissions in excess of the concentration referenced at standard conditions, shown in Table 404(a).

The proposed PM_{10} emission rate for the engines will limit PM emissions to less than 0.05 gr/dscf.

The affected equipment is expected to comply with the requirements of this rule.

Rule 405 - *Solid Particulate Matter Weight*
A person shall not discharge into the atmosphere from any source, solid particulate matter, including lead and lead compounds, in excess of the rate shown in Table 405 (a).

The RSEP is expected to operate in compliance with this rule.

Rule 406 - *Specific Contaminants*
Prohibits sulfur emissions, calculated as SO_2, in excess of 0.05 percent by volume (500 parts per million by volume [ppmv]), and acid gas emissions above specified levels.

The RSEP is expected to operate in compliance with this rule.

Rule 407 - *Liquid and Gaseous Air Contaminants*
Prohibits carbon monoxide emissions in excess of 2,000 ppmv.

Rule 409 - *Combustion Contaminants*
Prohibits the discharge into the atmosphere from the burning of fuel combustion, contaminants exceeding 0.23 gram per cubic meter (0.1 grain per cubic foot) of gas calculated to 12 percent of carbon dioxide (CO_2) at standard conditions averaged over a minimum of 25 consecutive minutes.

Rule 431 - *Sulfur Content of Fuels*
Prohibits the burning of gaseous fuel with a sulfur content of more than 800 ppm and liquid fuel with a sulfur content of more than 0.5 percent sulfur by weight.

The diesel ATCM and the emergency genset operating permit require that the engine use fuel that is CARB certified ultra-low sulfur diesel (0.0015% Sulfur).

The requirement of CARB ultra-low sulfur diesel fuel will ensure compliance with this rule.

Rule 475 - *Electric Power Generating Equipment*
Not applicable; the emergency generators are below the applicability thresholds and the solar electrical power plant does not emit any products of combustion. Rather, the RSEP consists of a large field of mirrors or heliostats to concentrate the sun's energy onto a central receiver positioned on top of a tower which stores energy in a liquid salt heat transfer fluid. The hot liquid salt is then routed to a series of heat exchangers to produce steam and subsequently electricity with a Rankine Cycle steam system. Therefore, the primary electrical generation is powered by thermal energy heating by solar radiation rather than combustion.

Rule 476 - *Steam Generating Equipment*
Not applicable; the steam generation equipment proposed for this power plant utilizes concentrated solar power rather than combustion of fossil based fuels.

3. MDAQMD Regulation IX Rule 900
Standards of Performance for New Stationary Sources
The temporary and stationary compression ignition engines at RSEP are subject to this regulation which requires the installation of engines that meet specific new non-road compression ignition engine emission standards. This regulation is similar to the California Air Resources Board (CARB) Air Toxic Control Measure (17 CCR §93115).

4. MDAQMD Regulation XI— Source Specific Standards
Not applicable; as the facility is located in a federal ozone attainment/unclassified area, and this rule only applies in a federal ozone non-attainment area.

Rule 1160—Internal Combustion Engines
Not applicable

5. MDAQMD Regulation XII—Federal Operating Permits
Not applicable

6. MDAQMD Regulation XII Rule 1210—Acid Rain Provisions of Federal Operating Permits
Not applicable

7. MDAQMD Regulation XIII —New Source Review

Rule 1303 - *Requirements*
This rule requires that any new or modified Permit Unit which emits, or has the Potential to Emit, 25 pounds per day or more of any Nonattainment Air Pollutant shall be equipped with BACT. Also requires that any new or Modified Facility which emits, or has the Potential to Emit, 25 tons per year or more of any Nonattainment Air Pollutant shall be equipped with BACT for each new Permit Unit.

The Rice Solar Energy Project does not have the potential to emit, 25 tons per year or more of any Nonattainment Air Pollutant, however, the emergency electrical gensets used during the operational phase do have the potential to emit above the MDAQMD BACT thresholds. Therefore, the gensets will be required to comply with the lowest emission thresholds associated with emergency engines in their class and category at the time of purchase. Although the WSAC does not exceed the BACT threshold of 25 lb/day, the Applicant has committed to the use of a high efficiency drift elimination system commonly applied as BACT for large cooling tower systems.

The prime power gensets do not trigger BACT thresholds; nonetheless these engines will meet BACT requirements as they will comply with the lowest emission thresholds associated with engines in their class and category.

Rule 1306 - *Electric Energy Generating Facilities*
This rule establishes the preconstruction review process for all EEGF proposed to be constructed in the District and for which an NOI or AFC has been accepted by the CEC, as such terms are defined in MDAQMD District Rule 1301(T), (OO), (H) and (M), respectively.

The District received a Request for Agency Participation and an AFC for the **RSEP, dated October 20, 2009.** In accordance with Rule 1306(B)(1), the District notified the Applicant, the CEC, the USEPA, and the CARB of the MDAQMD's intent to participate in the RSEP proceedings; stating that on a preliminary basis, the District asserted that there was a substantial likelihood that the proposed facility will satisfy applicable District rules and regulations, and that the District had reviewed the application and found it to be complete, as required by Rules 1302(B) and 1306(C).

Additionally, pursuant to Rule 1306(B)(2), the MDAQMD has prepared this document that serves as the Preliminary Report as it includes the following required elements:

(i) A preliminary specific definition or description of BACT for the proposed Facility; and
(ii) A preliminary discussion of whether there is a substantial likelihood that the requirements of this Regulation and all other District Rules can be satisfied by the proposed Facility; and
(iii) A preliminary list of conditions which the proposed Facility must meet in order to comply with this Regulation and any other applicable District Rules.

8. MDAQMD Regulation XX — Conformity

Rule 2002 – *General Federal Actions Conformity*

Conformity Impacts
A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan).

Rule 2002 applies to this project and the determination and conformance will be provided by the Bureau of Land Management (BLM) in the joint CEC/BLM CEQA/National Environmental Policy Act (NEPA) document for this project.

At present the MDAQMD has the following general air quality attainment status. The impacts from this project are NOT expected to negatively impact any current status, attainment plan, nor contribute to a change in the attainment status for attainment pollutants.

MDAQMD Federal Attainment Status
- Severe Nonattainment for Ozone
- Moderate Nonattainment for Particulate Matter (PM)
- Attainment/Unclassified for $PM_{2.5}$
- Attainment for CO
- Attainment for Lead (Pb)

MDAQMD State Attainment Status
- Moderate Nonattainment for Ozone
- Nonattainment for PM
- Nonattainment for $PM_{2.5}$
- Attainment for CO
- Attainment for Lead (Pb)

9. Prevention of Significant Deterioration (PSD)
MDAQMD does not have a rule that implements the federal PSD program, and has not been delegated authority; nonetheless, PSD requirements apply, on a pollutant-specific basis, to any project that is a new major stationary source or a major modification to an existing major stationary source. District Rule 1310 Federal Major Facilities and Federal Major Modifications defines threshold amounts for new federal major sources (Rule 1310(D) table 1), as well as threshold amounts for federal major modifications (Rule 1310 (D) table 2). The PSD requirements also apply to any project expected to have a significant impact upon Class I or Class II areas or significant emissions of non-criteria pollutants. PSD includes the following elements:
• Air quality monitoring

- BACT
- Air quality impact analysis
- Protection of Class I areas including visibility impacts

The project will not result in emissions exceeding the applicable PSD thresholds; The RSEP ***will not*** *be a "major facility", as defined in the PSD regulations*

H. Air Quality Setting, Climate and Meteorology

The project site is located in an area that is designated State non-attainment and Federal attainment/unclassified for ozone, and particulate matter.

The RSEP site is in the eastern portion of unincorporated Riverside County adjacent to the southern boundary of San Bernardino County in MDAQMD. The 3,324-acre privately owned site is immediately south of State Route (SR) 62. The nearest residences are at Vidal Junction (2000 census population 47), approximately 15 miles northeast. The nearest settlement is a cluster of residences at the Metropolitan Water District Iron Mountain Pumping Plant, 17 miles west. The nearest town with any significant population or services is Parker, Arizona (pop. ~11,000), including the Parker-area residential communities on the California side of the Colorado River, approximately 32 miles east. Blythe, California (pop. ~15,000), is approximately 40 miles south; Twenty-nine Palms, California, is approximately 75 miles west.

Between 1942 and 1944, the project site served as the Rice Army Airfield, an ad-hoc airstrip and encampment that was part of the World War II Desert Training Center. After the war, the airfield was used as a private air field from 1949 until it was abandoned between 1954 and 1958.

The RSEP site is relatively flat and is at an elevation of approximately 850 feet above mean sea level. The site is located in a very sparsely settled portion of the Sonoran Desert in the Mojave Desert Air Basin (MDAB). The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes (MDAQMD, 2009). Many of the lower mountains that dot the terrain rise from 1,000 to 4,000 feet above the valley floor (MDAQMD, 2009). The Mojave Desert is bordered in the southwest by the San Bernardino Mountains, separated from the San Gabriel Mountains by the Cajon Pass (MDAQMD, 2009). The nearest Class I area is the Joshua Tree National Park, the closest boundary of which is approximately 25 miles west.

The RSEP is in the MDAB, which is classified as a dry-hot desert climate. The cool, moist coastal air from the South Coast Air Basin is blocked by the San Gabriel and San Bernardino mountain ranges. The area is characterized by hot, dry summers and mild winters, with annual rainfall averaging 3 to 7 inches per year. Relative humidity in the Mojave Desert is typically 10 percent on summer afternoons and 30 percent on winter afternoons. In the summer, the MDAB is usually influenced by a Pacific subtropical high cell that sits off the coast of California, inhibiting cloud formation and encouraging daytime solar heating (MDAQMD, 2009). Most desert moisture arrives from infrequent warm, moist, and unstable air masses from the south (MDAQMD, 2009). The prevailing winds are out of the west and southwest, resulting in a general west-to-east flow across the MDAB.

Based on the climate summary for the Blythe airport, July is the warmest month of the year, with an historical average high temperature of 108 degrees Fahrenheit (°F) and an average minimum temperature of 81°F (Western Regional Climate Center [WRCC], 2009). The coldest months are December and January, with average daytime high temperatures of 67°F and an average minimum temperature of 41°F (WRCC, 2009). The annual average precipitation recorded at Blythe is approximately 3.5 inches per year, with most of the precipitation in the winter (WRCC, 2009).

I. Air Quality Impact Analysis

The Industrial Source Complex Short Term, Version 3 (ISCST3) dispersion model (Version 99155) combined with screening level meteorological data was used to predict ground-level concentrations of criteria pollutant and TACs. The air dispersion modeling was conducted based on guidance presented in the *Guideline on Air Quality Models* (EPA, 2005); the results are presented below:

The maximum predicted NO_2, CO, SO_2, and $PM_{2.5}$ concentrations combined with the background concentration are less than the AAQS. Therefore, NO_2, CO, SO_2, and $PM_{2.5}$ impacts during the construction and salt commissioning phase will be less than significant.

For PM_{10}, the 24-hour background concentration exceeds the AAQS without adding the modeled concentrations. As a result, the predicted impacts also would be greater than the AAQS. However, the salt commissioning, and construction activity would be finite and the use of clean-burning fuels (natural gas, propane, or LNG) would meet the best available control technology requirements for particulate emissions from the two heater units. Contributions from the WSAC were not included since it is not operational at this phase. Salt commissioning of the proposed project would result in minimal PM_{10} impacts that are not expected to significantly contribute to existing violations of the PM_{10} AAQS. With implementation of best available fugitive dust emission control techniques and other proposed mitigation measures to minimize construction impacts; combined PM_{10} impacts from the construction and salt commissioning activities are not expected to be significant.

The Applicant also conducted a subsequent AERMOD dispersion modeling analysis to demonstrate compliance with the new federal 1-hour NO_2 standard (becoming effective on April 12, 2010). This analysis was conducted using a methodology recommended by the CEC air quality staff. This demonstration, contained in a response to a CEC Data Request Workshop, showed that the project would not cause or contribute to a violation of the new federal 1-hour NO_2 standard during construction, salt processing, or operation of the RSEP.

J. PSD Increment Consumption

The PSD program allows emission increases (increments of consumption) that do not result in significant deterioration of ambient air quality in areas where criteria pollutants have not exceeded the NAAQS.

It was determined that an evaluation of operational impacts would not be required for this project because the diesel-fired emergency engines will only be operated 1 hour a week or less, and no more than 26 hours per year, for testing and maintenance activities. It was also determined that an evaluation of visibility impacts on Class I areas is not required for this analysis because the facility operational emissions are expected to be significantly below the Prevention of Significant Deterioration (PSD) thresholds.

K. Health Risk Assessment (HRA)

Results indicate that acute and chronic health hazard indices are well below 1.0, and hence, are not significant; the project will not pose a significant health risk at any location, under any weather conditions, under any operating conditions.

MDAQMD Reg XIII, Rule 1320 (Permits – Toxics New Source Review).
The purpose of this rule is to provide for the review of new and modified sources of TAC emissions in order to evaluate potential public exposure and health risk, to mitigate potentially significant health risks resulting from these exposures, and provide net health risk benefits by improving the level of control when existing sources are modified or replaced.

TBACT shall be applied to any new or modified source of TACs where the facility or individual source cancer risk is greater than 1.0 in a million. An ATC or PTO will be denied if the facility cancer risk exceeds 10 in a million, or the chronic hazard index exceeds 1.0, or the acute hazard index exceeds 1.0. The predicted cancer risk at the point of maximum impact (PMI) for the project is 0.77 in a million. The maximum predicted chronic and acute hazard indices at the PMI are 0.0058 and 0.59, respectively.

Conclusion: The values are below the ATC or PTO facility thresholds for cancer risk of 1 in a million and the chronic and acute hazard index of 1.0.

L. Class I Area Visibility Protection

The nearest Class I area is the Joshua Tree National Park, the closest boundary of which is approximately 25 miles west. ***Rule 1302(B)(v)(a) Class I Area Visibility Protection states that: An application for a Major Facility or a Facility with a Major Modification which is located within 60 miles of a Class I Area, as defined in 40 CFR 51.301(o), shall include in its application an analysis of any anticipated impacts on visibility within that Class I Area. Such analysis shall include, but is not limited to, an analysis of the factors found in 40 CFR 51.301(a).***

The Applicant has provided an analysis and a rationale concluding that a rigorous Class I visibility analysis is not required. That analysis and conclusion is summarized below; the MDAQMD agrees with this summary.

Rule 1301 (refers to Rule 1303(B)(1)) defines a major source as a source with a PTE above 100 TPY of CO, 10 TPY of H2S, 0.6 TPY of Lead, 15 TPY of PM_{10}, and 25 TPY of NOx, VOC, and SOx. This project's PTE will not exceed the Major Facility (MF) thresholds (see Tables 9). As

this is a new facility and not a modification to an existing facility, the facility with a Major Modification provisions of Rule 1302(B)(v)(a) do not apply. Therefore, Rule 1302(B)(v)(a) Class I visibility assessment is not required for the RSEP project. Additionally, the maximum PTE for the salt conditioning period includes emissions from construction generators, salt handling/melting/heating/conditioning systems, and operational emissions from the emergency equipment. Emissions from MDAQMD permitted sources are summarized in Table 9; Major Source thresholds are also presented for comparison. Conclusion is that visibility impacts to any nearby Class I areas (Joshua Tree is approximately 25 miles west from RSEP) are considered negligible.

Table 9 Major Source Comparison with MDAQMD Permitted equipment Emissions

	NOx	TOC	NOx & HC	SOx	CO	PM10
Maximum PTE (tons/year) During Construction Phase; See Table 3	21.8	1.0	11.0	1.4	11.8	1.5
Maximum PTE (tons/year) During Operations Phase; See Table 4	1.3	0.023	0.10	0.0014	0.16	0.04
Major Facility Threshold (tons/year) Rule 1303(B)(1)	25	25	25	25	100	15

M. MDAQMD Permit Conditions

CONDITIONS APPLICABLE TO Rice Solar Energy Project DIESEL IC ENGINE, GENERATORS, MDAQMD PERMIT NUMBERS; B010803, B010804, B010806 & B010807 each consisting of: Isuzu (or Equivalent) Model BI-4HK1X (or Equivalent), serial number unknown, year of manufacture unknown, Certified Tier III Engine, CARB Executive Order U-R-006-0285, Family 8SZXL03.0JXB 98 bhp, direct Injected, turbo charged, after cooled, inter cooled, operating at unknown rpm, fueled on CARB diesel, with a maximum rated fuel consumption of 4.3 gph, powering an electrical generator.

1. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.

2. This unit shall only be fired on ultra-low sulfur diesel fuel, with sulfur concentration less than or equal to 0.0015% (15 ppm) on a weight per weight basis per CARB Diesel or equivalent requirements. (17 CCR §93115(e)(1)(A))

3. A non-resettable four-digit (9,999) hour timer shall be installed and maintained on this unit to indicate elapsed engine operating time. (17 CCR §93115(e)(4)(G)1.)

4. The owner/operator shall maintain a monthly operations log for each unit current and on-site for two (2) years, and be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the information specified below:
a. Monthly hours of use (in hours) for each engine; total calendar year operation for all four engines combined (see condition 11);

b. Calendar year operation in terms of fuel consumption (in gallons) for each unit and total hours; and,
c. Fuel sulfur concentration (the Owner/Operator may use the supplier's certification of sulfur content if it is maintained as part of this log).

5. Pursuant to the diesel ATCM section (17 CCR §93115(e)(1)(D)1.a.), diesel particulate matter (DPM) emission from each diesel internal combustion engine (ICE) shall emit no more than 0.01 g/Bhp-hr or 85% reduction from Tier III emission levels for DPM at the time of installation.

6. This diesel fired ICE is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines (17 CCR 93115). In the event of conflict between these conditions and the ATCM, the more stringent requirements shall govern.

7. This generator shall not operate unless the exhaust is vented through a properly functioning diesel particulate trap as necessary to comply with Condition 5.

8. This engine shall not operate unless equipped with a verified Level 3 control device for 85%+ diesel particulate reduction consistent with Condition 7 above. At present this add on control device has not been identified. Once information is available it shall be communicated to the District for incorporation into this Permit.

9. The facility must submit accurate emissions inventory data to the District, in a format approved by the District, on a yearly basis, which is to be received by the District no later than April 30 of each year.

Facility Calendar Year Emissions shall be less than the following:

PM10: 15 tpy
NOx: 25 tpy
SOx: 25 tpy
ROC: 25 tpy

10. This facility shall not emit more than 9.9 t/y of a single HAP and 24.9 t/y of all HAP's. To ensure compliance, the owner/operator shall calculate and record the annual emissions of Federal Hazardous Air Pollutants (HAP's) in tons per year (t/y) on a calendar year basis (January 1 through December 31). The list of HAP's can be found in Section 112(b)(1) of the Federal Clean Air Act or at web site: http://www.epa.gov/ttn/atw/188polls.html

11. The aggregated total hours accumulated from engines permitted as; B010803, B010804, B010806 & B010807 shall not exceed a combined total of 11,440 hours in any single calendar year period.

12. This engine shall not be operated once line power is available to replace the electrical demand supported by such engine, and shall be removed from the site within 60 days of

connection completion. The owner/operator shall request permit cancelation concurrent with engine removal.

13. This unit is subject to the requirements of the Federal New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60 Subpart IIII).

CONDITIONS APPLICABLE TO Rice Solar Energy Project DIESEL IC ENGINE, GENERATOR, MDAQMD PERMIT NUMBERS; B010808, B010809, B010810, and B010811, each consisting of: Isuzu (or Equivalent) Model BI-4HK1X (or Equivalent), serial number unknown, year of manufacture unknown, Certified Tier III Engine, CARB Executive Order U-R-006-0273, Family 8SZXLO5.2I X B. 173 bhp, direct injected, turbo charged, after cooled, inter cooled, operating at unknown rpm, fueled on CARB diesel, with a maximum rated fuel consumption of 7.3 gph.

1. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.

2. This unit shall only be fired on ultra-low sulfur diesel fuel, whose sulfur concentration is less than or equal to 0.0015% (15 ppm) on a weight per weight basis per CARB Diesel or equivalent requirements. (17 CCR §93115(e)(1)(A))

3. A non-resettable four-digit (9,999) hour timer shall be installed and maintained on this unit to indicate elapsed engine operating time. (17 CCR §93115(e)(4)(G)1.)

4. The Owner/Operator shall maintain a operations log for each unit current and on-site for two (2) years, and be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the information specified below:
a. Monthly hours of use (in hours) for each engine; total calendar year operation for all four engines combined (see condition 11);
b. Calendar year operation in terms of fuel consumption (in gallons) and total hours; and,
c. Fuel sulfur concentration (the Owner/Operator may use the supplier's certification of sulfur content if it is maintained as part of this log).

5. Pursuant to the diesel ATCM section (17 CCR §93115(e)(1)(D)1.a.), diesel particulate matter (DPM) emission from this diesel ICE shall emit no more than 0.01 g/Bhp-hr or 85% reduction from Tier III emission levels for DPM at the time of installation.

6. This diesel fired ICE is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines (17 CCR 93115). In the event of conflict between these conditions and the ATCM, the more stringent requirements shall govern.

7. This Generator shall not operate unless the exhaust is vented through a properly functioning diesel particulate trap as described above.

8. This engine shall not operate unless equipped with a verified Level 3 control device for 85%+ diesel particulate reduction consistent with Condition 5 above. At present this add on control device has not been identified. Once information is available it shall be communicated to the District for incorporation into this Permit.

9. The facility must submit accurate emissions inventory data to the District, in a format approved by the District, on a yearly basis, which is to be received by the District no later than April 30 of each year.

Facility Calendar Year Emissions shall be less than the following:

PM10: 15 tpy
NOx: 25 tpy
SOx: 25 tpy
ROC: 25 tpy

10. This facility shall not emit more than 9.9 t/y of a single HAP and 24.9 t/y of all HAP's. To ensure compliance, the owner/operator shall calculate and record the annual emissions of Federal Hazardous Air Pollutants (HAP's) in tons per year (t/y) on a calendar year basis (January 1 through December 31). The list of HAP's can be found in Section 112(b)(1) of the Federal Clean Air Act or at web site: http://www.epa.gov/ttn/atw/188polls.html

11. The aggregated total hours accumulated from engines permitted as; B010808, B010809, B010810, and B010811 shall not exceed a combined total of 22,200 hours in any single calendar year period.

12. This engine shall not be operated once line power is available to replace the electrical demand supported by such engine, and shall be removed from the site within 60 days of connection completion. The owner/operator shall request permit cancelation concurrent with engine removal.

13. This unit is subject to the requirements of the Federal New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60 Subpart IIII).

CONDITIONS APPLICABLE TO Rice Solar Energy Project EMERGENCY FIREWATER PUMPS, MDAQMD PERMIT NUMBERS; E010812 & E010813, each consisting of:
Caterpillar, Model C18 Dita (or equivalent), a CARB Certified Tier III engine, serial number unknown, year of manufacture unknown, 600 bhp, turbo charged, after cooled, operating at 1750 rpm, fueled on CARB diesel, with a maximum rated fuel consumption of 31.4gph, powering a fire pump.

1. This system shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles, which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.

2. This engine may operate in response to notification of impending rotating outage if the area utility has ordered rotating outages in the area where the engines are located or expects to order such outages at a particular time, the engines are located in the area subject to the rotating outage, the engines are operated no more than 30 minutes prior to the forecasted outage, and the engines are shut down immediately after the utility advises that the outage is no longer imminent or in effect.

3. This engine may operate in response to fire suppression requirements and needs.

4. This unit shall only be fired on ultra-low sulfur diesel fuel, whose sulfur concentration is less than or equal to 0.0015% (15) on a weight per weight basis per CARB Diesel or equivalent requirements.

5. This facility shall not perform testing of more than one emergency internal combustion engine at a time.

6. A non-resettable four-digit (9,999) hour timer shall be installed and maintained on this unit to indicate elapsed engine operating time. (17 CCR §93115(e)(4)(G)1).

7. This unit shall be limited to use for emergency power, defined as in response to a fire or when commercially available power has been interrupted or may be interrupted per Condition 2 above. In addition, this unit shall be operated no more than 26 hours per year, no more than 30 minutes per day for testing and maintenance, excluding compliance source testing. Time required for source testing will not be counted toward the 26 hour per year limit.

8. The 30 minute limit of Condition #7 can be exceeded when the emergency fire pump assemblies are driven directly by the stationary diesel fueled CI engine when operated per and in accord with the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems," 2006 edition or the most current edition approved by the CARB Executive Officer. {Title 17 CCR 93115(c)16}

9. The o/o shall maintain a operations log for this unit current and on-site (or at a central location) for a minimum of five (5) years, with records kept on-site for two (2) years, and be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the information specified below:

a. Date of each use and duration of each use (in hours);
b. Reason for use (testing & maintenance, emergency, required emission testing);
c. Calendar year operation in terms of fuel consumption (in gallons) and total hours; and,

d. Fuel sulfur concentration (the o/o may use the supplier's certification of sulfur content if it is maintained as part of this log).
e. Documentation of maintenance as per manufacturer's recommendations and good maintenance practices.

10. This fire protection unit is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines (Title 17 CCR 93115). In the event of conflict between these conditions and the ATCM, the more stringent requirements shall govern.

11. This unit is subject to the requirements of the Federal New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60 Subpart IIII).

12. This unit is subject to the requirements of the Federal New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60 Subpart IIII).

CONDITIONS APPLICABLE TO Rice Solar Energy Project
EMERGENCY GENERATORS, MDAQMD PERMIT NUMBERS; E010814 & E010815, each consisting of: Caterpillar, Model C175-16 (or equivalent), a CARB Certified Tier II engine, serial number unknown, year of manufacture unknown, 4020 bhp, turbo charged, after cooled, operating at TBD rpm, fueled on CARB diesel with a maximum rated fuel consumption of 213.3 gph, powering an electrical generator.

1. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.

2. Engine may operate in response to notification of impending rotating outage if the area utility has ordered rotating outages in the area where the engine is located or expects to order such outages at a particular time, the engine is located in the area subject to the rotating outage, the engine is operated no more than 30 minutes prior to the forecasted outage, and the engine is shut down immediately after the utility advises that the outage is no longer imminent or in effect.

3. This unit shall only be fired on ultra-low sulfur diesel fuel, whose sulfur concentration is less than or equal to 0.0015% (15ppm) on a weight per weight basis per CARB diesel or equivalent requirements.

4. A non-resettable four-digit (9,999) hour timer shall be installed and maintained on this unit to indicate elapsed engine operating time.

5. This facility shall not perform testing of more than one emergency internal combustion engine at a time.

6. This unit shall be limited to use for emergency power, defined as in response to a fire or when commercially available power has been interrupted or may be interrupted per Condition 2 above. In addition, this unit shall be operated no more than 26 hours per year, and no more than 1 hour per day for testing and maintenance, excluding compliance source testing. Time required for source testing will not be counted toward the 26 hour per year limit.

7. The o/o shall maintain a operations log for this unit current and on-site (or at a central location) for a minimum of five (5) years, with records kept on-site for two (2) years, and be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the information specified below:
a. Date of each use and duration of each use (in hours);
b. Reason for use (testing & maintenance, emergency, required emission testing);
c. Calendar year operation in terms of fuel consumption (in gallons) and total hours; and,
d. Fuel sulfur concentration (the o/o may use the supplier's certification of sulfur content if it is maintained as part of this log).
e. Documentation of maintenance as per manufacturer's recommendations and good maintenance practices.

8. This genset is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines (Title 17 CCR 93115). In the event of conflict between these conditions and the ATCM, the more stringent requirements shall govern.

9. This unit shall not be used to provide power during a voluntary agreed to power outage and/or power reduction initiated under an Interruptible Service Contract (ISC); Demand Response Program (DRP); Load Reduction Program (LRP) and/or similar arrangement(s) with the electrical power supplier.

10. This unit is subject to the requirements of the Federal New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60 Subpart IIII).

CONDITIONS APPLICABLE TO Rice Solar Energy Project SALT HANDLING SYSTEM, TEMPORARY, MDAQMD PERMIT NUMBER; B010848, consisting of: Material handling and mixing equipment, enclosed mechanical screw conveyor located in an enclosed building and vented through a fabric filter baghouse.

1. This equipment shall be properly maintained and kept in good operating condition in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles.

2. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

3. This equipment and associated operations shall not discharge an exhaust stream that exhibits opacity greater than twenty percent (Ringelmann 1).

4. This equipment shall not be operated unless vented through properly functioning air pollution control equipment under valid District permit C010850.

5. This equipment shall not process more than 480 tons of material in any one day and a total of 35,000 tons of product during the salt commissioning period.

6. The owner/operator shall maintain a log of all material throughput amounts so as to verify the above condition. Additionally, a log shall be kept of all inspections, repairs, and maintenance on equipment. Such logs or records shall be maintained at the facility for two (2) years, and be provided to District, State and Federal personnel upon request.

7. The owner/operator (o/o) shall maintain this equipment in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of air contaminants.

8. All open material transfer points, such as conveyor drops, hopper and bin loading, shall be operated to minimize emissions of particulate matter.

9. The Owner/Operator shall maintain the equipment to preclude violations of District rules 401, 402 and 403.

10. Salt blending and commissioning operations are temporary and expected to be in service 24 hours per day, and up to 140 days during the power plant commissioning phase. Subsequently, the salt milling and handling equipment shall be removed from this facility within 60 days subsequent to power plant start up.

11. The facility must submit an accurate emissions inventory data to the District, in a format approved by the District, on a yearly basis, which is to be received by the District no later than April 30 of each year.

Facility Calendar Year Emissions shall be less than the following:

PM10: 15 tpy
NOx: 25 tpy
SOx: 25 tpy
ROC: 25 tpy

12. This facility shall not emit more than 9.9 t/y of a single HAP and 24.9 t/y of all HAP's. To ensure compliance, the owner/operator shall calculate and record the annual emissions of Federal Hazardous Air Pollutants (HAP's) in tons per year (t/y) on a calendar year basis (January 1 through December 31). The list of HAP's can be found in Section 112(b)(1) of the Federal Clean Air Act or at web site: http://www.epa.gov/ttn/atw/188polls.html

CONDITIONS APPLICABLE TO Rice Solar Energy Project, HEATER, SALT COMMISIONING, TEMPORARY, MDAQMD PERMIT NUMBER; B010792, consisting of: Manufacturer TBD Model TBD, Serial Number TBD with a maximum heat input of 20 MMBtu/hr, equipped with a TBD Burner Model TBD

1. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

2. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants.

3. The operator shall maintain a log for this equipment, which, at a minimum, contains the information specified below. This log shall be maintained current and on-site for a minimum of two (2) years, and be provided to District, State and Federal personnel upon request:
a. Monthly fuel use; and,
b. Cumulative total fuel usage.

4. This heater may be fired using liquefied petroleum gas (LPG), natural gas (NG) or liquefied natural gas (LNG).

5. This heater shall only be used to liquefy and condition the heat transfer salt mixture during start up procedures associated with salt commissioning (excluding start-up of the heater).

6. This unit shall be limited to the melting and conditioning of up to 35,000 tons of salt (excluding start-up of the heater).

7. This device shall be removed from this facility within 60 days subsequent to power plant start up; the owner/operator shall within 60 days of power plant start up request that this permit be cancelled.

8. Pursuant to District Rule 401; visible emissions associated with operation of this heater shall not exceed 20% opacity or Ringelmann 1.

9. The facility must submit accurate emissions inventory data to the District, in a format approved by the District, on a yearly basis, which is to be received by the District no later than April 30 of each year.

Facility Calendar Year Emissions shall be less than the following:

PM10: 15 tpy
NOx: 25 tpy
SOx: 25 tpy
ROC: 25 tpy

10. This facility shall not emit more than 9.9 t/y of a single HAP and 24.9 t/y of all HAP's. To ensure compliance, the owner/operator shall calculate and record the annual emissions of Federal Hazardous Air Pollutants (HAP's) in tons per year (t/y) on a calendar year basis (January 1 through December 31). The list of HAP's can be found in Section 112(b)(1) of the Federal Clean Air Act or at web site: http://www.epa.gov/ttn/atw/188polls.html

CONDITIONS APPLICABLE TO Rice Solar Energy Project, HEATER, SALT COMMISIONING, TEMPORARY, MDAQMD PERMIT NUMBER; B010801, consisting of: Manufacturer TBD Model TBD, Serial Number TBD with a maximum heat input of 55 MMBtu/hr, equipped with a TBD Burner Model TBD

1. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

2. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants.

3. The operator shall maintain a log for this equipment, which, at a minimum, contains the information specified below. This log shall be maintained current and on-site for a minimum of two (2) years, and be provided to District, State and Federal personnel upon request:
a. Monthly fuel use; and,
b. Cumulative fuel usage.

4. This heater may be fired using liquefied petroleum gas (LPG), natural gas (NG) or liquefied natural gas (LNG).

5. This heater shall only be used to liquefy and condition the heat transfer salt mixture during start up procedures associated with salt commissioning (excluding start-up of the heater).

6. This unit shall be limited to the melting and conditioning of up to 35,000 tons of salt (excluding start-up of the heater).

7. This device shall be removed from this facility within 60 days subsequent to power plant start up; the owner/operator shall within 60 days of power plant start up request that this permit be cancelled.

8. Pursuant to District Rule 401; visible emissions associated with operation of this heater shall not exceed 20% opacity or Ringelmann 1.

9. The facility must submit an accurate emissions inventory to the District, in a format approved by the District, on a yearly basis, which is to be received by the District no later than April 30 of each year.

Facility Calendar Year Emissions shall be less than the following:

PM10: 15 tpy
NOx: 25 tpy
SOx: 25 tpy
ROC: 25 tpy

10. This facility shall not emit more than 9.9 t/y of a single HAP and 24.9 t/y of all HAP's. To ensure compliance, the owner/operator shall calculate and record the annual emissions of Federal Hazardous Air Pollutants (HAP's) in tons per year (t/y) on a calendar year basis (January 1 through December 31). The list of HAP's can be found in Section 112(b)(1) of the Federal Clean Air Act or at web site: http://www.epa.gov/ttn/atw/188polls.html

CONDITIONS APPLICABLE TO Rice Solar Energy Project WET SURFACE AIR COOLER (WSAC), MDAQMD PERMIT NUMBER; B010889, consisting of: an manufacturer, and model tbd; system shall be equipped with drift elimination system rated at 0.0005%.

1. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

2. This equipment shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.

3. The drift rate shall not exceed 0.0005 percent of the maximum circulation rate. The vendor performance specifications will be provided prior to the installation of this unit.

4. The owner/operator shall conduct water quality testing for total dissolved solids content for the WSAC recirculation water at least once per calendar quarter when the unit is operated.

5. The owner/operator shall estimate annual PM_{10} emissions from this unit using the quarterly water quality testing data and the WSAC design specifications for drift and recirculation rate. Facility calendar year PM_{10} emissions shall be less than the PM_{10} offset threshold of 15 ton per year.

6. A log shall be kept of all inspections, repairs, and maintenance on equipment. This log shall be maintained current and on-site for a minimum of five (5) years, and be provided to District, State and Federal personnel upon request.

7. The facility must submit an accurate emissions inventory to the District, in a format approved by the District, on a yearly basis, which is to be received by the District no later than April 30 of each year.

Facility Calendar Year Emissions shall be less than the following:

PM10: 15 tpy
NOx: 25 tpy

SOx: 25 tpy
ROC: 25 tpy

CONDITIONS APPLICABLE TO Rice Solar Energy Project WET CHEMICAL SCRUBBER, TEMPORARY MDAQMD PERMIT NUMBER; C010830, consisting of: an temporary salt conditioning multi-stage chemical wet scrubber with a 50' tall stack and a 1.13' diameter operating with an exhaust temperature of 120 degrees F and a flow rate of 3,000 acfm.

1. This equipment shall only be operated and maintained in strict accord with manufacturers and/or supplier's recommendations and/or sound engineering principles.

2. An operating air lock device shall be fitted in each material and/or liquid discharge port.

3. The overall water flow to this scrubbing system shall be kept at levels designed and recommended by system supplier.

4. The scrubbing system shall be equipped with a pressure gauge and water flow meter to allow for the measurements of the water flow and pressure to the venturi and impingement tray scrubbers.

5. The pressure drop across this scrubbing system shall be within the manufacturer's or design recommended range of TBD" W.C. or greater.

6. The owner/operator (o/o) shall maintain a log of all material throughput amounts so as to record the values referenced in the above condition. Additionally, a log shall be kept of all inspections, repairs, and maintenance on equipment. Such logs or records shall be maintained at the facility for two (2) years, and be provided to District, State and Federal personnel upon request.

7. This equipment shall be operated concurrently with the salt blending and heating process associated with District Permits B010848, B010792, and B010801.

8. Salt blending and salt conditioning operations are temporary and expected to be in service 24 hours per day, and up to 140 days during the salt commissioning phase. Subsequently, the salt milling and handling equipment, salt heaters, and wet chemical scrubber shall be removed from this facility within 60 days subsequent to power plant start up; the owner/operator shall within 60 days of power plant start up request that this permit be cancelled.

9. The facility must submit an accurate emissions inventory to the District, in a format approved by the District, on a yearly basis, which is to be received by the District no later than April 30 of each year.

Facility Calendar Year Emissions shall be less than the following:

PM10: 15 tpy
NOx: 25 tpy

SOx: 25 tpy
ROC: 25 tpy

10. This facility shall not emit more than 9.9 t/y of a single HAP and 24.9 t/y of all HAP's. To ensure compliance, the owner/operator shall calculate and record the annual emissions of Federal Hazardous Air Pollutants (HAP's) in tons per year (t/y) on a calendar year basis (January 1 through December 31). The list of HAP's can be found in Section 112(b)(1) of the Federal Clean Air Act or at web site: http://www.epa.gov/ttn/atw/188polls.html

CONDITIONS APPLICABLE TO Rice Solar Energy Project BAGHOUSE, TEMPORARY MDAQMD PERMIT NUMBER; C010850, consisting of: an temporary Model TBD; airflow of TBD acfm at powered with a TBD hp motor, TBD Bags, TBD ft2 of cloth area and Air-to-Cloth ratio of TBD.

1. This equipment shall only be operated and maintained in strict accord with manufacturers and/or supplier's recommendations and/or sound engineering principles.

2. The o/o shall maintain, on-site, an inventory of replacement bags sufficient to ensure compliance with applicable rules of District Regulation IV.

3. This baghouse shall operate as part of the process known as the RSEP salt handling process, permitted by MDAQMD permit B010848.

4. Salt blending and commissioning operations are temporary and expected to be 24 hours per day, and up to 140 days during the salt system commissioning phase. Subsequently, the salt milling and handling equipment, including this baghouse, shall be removed from this facility within 60 days subsequent to power plant start up; the owner/operator shall within 60 days of power plant start up request that this permit be cancelled.

5. The owner/operator (o/o) shall maintain a log of all material throughput amounts so as to record the values referenced in the above condition. Additionally, a log shall be kept of all inspections, repairs, and maintenance on equipment. Such logs or records shall be maintained at the facility for two (2) years, and be provided to District, State and Federal personnel upon request.

N. Public Comment and Notifications

1. Public Comment

This preliminary decision/determination will be released for public comment and publicly noticed on or about **June 18, 2010.** Written comments will be accepted for 30 days from the date of publication of the public notice. Final permits (Authorities to Construct) shall be prepared approximately 15 days after the California Energy Commission has granted project approval.

Any comments on this Preliminary Decision/Determination shall be forwarded to:

Eldon Heaston, Executive Director
Mojave Desert Air Quality Management District
14306 Park Avenue
Victorville, CA 92392-2310
Attention: Samuel J. Oktay, PE
soktay@mdaqmd.ca.gov

O. Agency Contacts for Rice Solar Energy Project

EPA Region 9, Permit issuance and oversight, Enforcement:

Gerardo Rios, Chief Permits Office
United States EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105

California Air Resources Board, Regulatory oversight:

Mike Tollstrup, Chief
Project Assessment Branch
Stationary Sources Division
California Air Resources Board
PO Box 2815
Sacramento, CA 95812

California Energy Commission

John Kessler, Project Manager
Siting, Transmission and Environmental Protection Division
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814
Docket Number: 09-AFC-10

Phone: 916-654-4679
E-mail: jkessler@energy.state.ca.us

Mojave Desert Air Quality Management District, Permit issuance, enforcement:

Eldon Heaston, Executive Director
Mojave Desert Air Quality Management District
14306 Park Avenue
Victorville, CA 92392
Attention: Samuel J. Oktay, PE
soktay@mdaqmd.ca.gov

P. Conclusion

The MDAQMD has reviewed the proposed project's impact, and determined that the post project facility will comply with all applicable State, Federal, and MDAQMD Rules and Regulations.

The MDAQMD recommends approval of this project.

There is no combustion involved in the production of electrical power as this is a solar energy power plant requiring no other heat sources. The process of initial melting and conditioning of the liquid salt that takes place during the salt system commissioning period will emit criteria pollutants, primarily nitrogen dioxide as a result of decomposition of a trace impurity, magnesium nitrate, in the salts, and operation of gas-fired heaters necessary to melt and condition the salt mixture from solid to liquid form. The melting and conditioning of the salt is completed during the salt commissioning phase. Heaters will be removed from facility as required by proposed permit conditions within 60 days subsequent to power plant start up. Emissions during normal plant operations will only come from the mandatory routine testing of the emergency diesel powered equipment.

Emissions occurring during construction as well as during regular operations are not expected to have any significant adverse impact on air quality or public health.

Stationary source emissions sources associated with operation of the RSEP are summarized below:

- Two (2) Emergency Generators; Caterpillar Model C175-16 (or equivalent); diesel fueled rated at 4020 BHP each; certified to comply with USEPA Certified Tier II emission levels; or the lowest applicable emission thresholds for emergency engines available at the time of procurement.

- Two (2) Diesel Engine powered Fire Pumps; Caterpillar Model C18 DITA (or equivalent); rated at 600 BHP each; certified to comply with USEPA Certified Tier III emission levels; or the lowest applicable emission thresholds for emergency engines at the time of procurement..

- Evaporative wet surface air cooler for auxiliary equipment cooling, including the steam turbine lubricating oil system, generator air coolers, and balance of plant ancillary systems with a recirculation rate of approximately 2,736 gpm. System equipped with drift elimination rated at 0.0005%.

Temporary stationary emissions sources associated with the construction and salt system commissioning of the RSEP are summarized below.

- The 20 MMBTU/hr heater shall be fueled by either LPG, NG, or LNG during the salt system commissioning period. The temporary heater shall be removed from this facility within 60 days subsequent to power plant start up.

- The 55 MMBTU/hr heater shall be fueled by either LPG, NG, or LNG during the salt system commissioning period. The temporary heater shall be removed from this facility within 60 days subsequent to power plant start up.

- A temporary baghouse, associated with the salt handling system. The temporary baghouse shall be removed from this facility within 60 days subsequent to power plant start up.

- A temporary, multi-stage chemical wet scrubber associated with controlling NOx, a byproduct of the chemical reaction during the salt conditioning step of the salt system commissioning phase; the scrubber is designed to have 85% control efficiency. This device shall be removed from this facility within 60 days subsequent to power plant start up.

- Four (4) temporary prime diesel powered electrical generators; each rated at 173 BHP; operation up to a combined total of 22,200 hours per year during the construction phase. These engines will meet the minimum Tier III USEPA engine standard or higher if applicable and available at the time of permit issuance. Once the electrical demand supported by each individual engine has been replaced by line power, the engine shall be removed within 60 days.

- Four (4) temporary prime diesel powered electrical generators; each rated at 98 BHP; operation up to a combined total of 11,440 hours per year during the construction phase. These engines will meet the minimum Tier III USEPA engine standard or higher if applicable and available at the time of permit issuance. Once the electrical demand supported by each individual engine has been replaced by line power, the engine shall be removed within 60 days.

Attachment 1

STATE OF CALIFORNIA — THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

July 1, 2010

Mr. Alan J. De Salvio
Supervising Air Quality Engineer
Mojave Desert Air Quality Management District
14306 Park Avenue
Victorville, CA 92392-2310

Re: Comments on Preliminary Determination of Compliance (PDOC)
Rice Solar Energy Project (09-AFC-10)

Dear Mr. De Salvio,

Energy Commission staff has reviewed the Mojave Desert Air Quality Management District (MDAQMD, or District) Preliminary Determination of Compliance (PDOC) issued for the Rice Solar Energy Project on June 10, 2010, and has the following comments for your consideration for inclusion in the Final Determination of Compliance (FDOC). Energy Commission staff has been working with MDAQMD staff and has reviewed draft copies of the Rice PDOC. The majority of our comments on the drafts have been addressed; the remaining comments are relatively minor.

NSPS Applicability
Page 19, MDAQMD Regulation IX: The federal New Source Performance Standards (NSPS) 40 Code of Federal Register (CFR) 60 Subpart IIII requirements do apply to the temporary diesel engines and the permanent emergency diesel engines. We recommend replacing "Not applicable" with appropriate text.

Ozone Attainment Status
On page 21, the first bullet under MDAQMD Federal Attainment Status has an apparent typographical error. We recommend that you remove "17" so the amended text would read "Severe Nonattainment for Ozone."

Equipment Descriptions
On page 27, under the equipment description for the group of 173 bhp diesel engines, we understand that this group of temporary diesel engines includes one engine (Application #00010819 in previous drafts of the PDOC) that would drive a water pump rather than an electrical generator. We recommend deleting the term "GENERATOR" from the equipment description or using the term "GENERATOR or WATER PUMP."

On page 30, under equipment description for permanent emergency generators, the fifth line has an apparent typographical error. We recommend that you delete duplicate text "turbo charged, after cooled, operating at TBD rpm, fueled on CARB diesel, ..."

The equipment descriptions for the temporary and permanent diesel engines contain the phrase "with a maximum fuel consumption rate of XXX gph." MDAQMD staff has stated that this information on the maximum fuel consumption rate is included in the equipment description to be descriptive and not prescriptive. To that end, we suggest that the equipment description language for all diesel engines be revised to read "with a maximum rated fuel consumption of XXX gph."

Fuel Meters for Temporary and Permanent Diesel Engines

All of the diesel engines have permit conditions requiring the owner/operator to maintain an operations log for each engine that includes among other information "Calendar year operations in terms of fuel consumption (in gallons) and total hours." Each of the diesel engines also has a permit condition requiring the installation and maintenance of a non-resettable hour timer on each engine to indicate engine operating hours for that engine. However, since there is no corresponding permit condition requiring the installation and maintenance of a fuel meter for each engine, it is not clear what the District will require of the applicant to comply with the fuel consumption reporting condition for each unit.

Removal of Temporary Emissions Sources

The temporary emissions sources are to be removed from the project site at the earliest opportunity. The temporary sources associated with the salt system commissioning are the salt handling system, wet scrubber, baghouse, the 55 MMBtu/hr temporary heater to be used to melt the salt and the 20 MMBtu/hr temporary heater to be used to heat the salt.

The proposed permit conditions set the removal deadline for the salt handling system, wet scrubber and baghouse as "within 60 days of the completion of the salt system commissioning process." The proposed permit conditions for the 20 MMBtu/hr temporary heater and the 55 MMBtu/hr temporary heater (Page 33, Condition #7 and Page 34, Condition # 7, respectively) establish the deadline for their removal as "within 60 days subsequent to power plant start up."

However, the Conclusions section of the PDOC (pages 39 and 40) states that the temporary heaters "will be removed within 60 days of completing the salt system commissioning" which could be earlier than "60 days subsequent to power plant start up."

We recommend that the permit conditions for the removal of the two temporary heaters be revised to match the deadline for their removal given in the recommendations on Pages 39 and 40 (i.e., within 60 days of completing the salt system commissioning). This change would set the same removal deadline for all temporary emission sources associated with the salt system commissioning and would require the removal of the temporary heaters at the earliest opportunity. This change would also eliminate the inconsistency between the removal deadline for the temporary heaters given in the permit conditions and the removal deadline given in the Conclusions section of the PDOC.

Thank you for the opportunity to comment on the Rice Solar Energy Project Preliminary Determination of Compliance. If you have any questions, please contact Brenner Munger of my staff at (916) 654-5139.

Sincerely,

MATTHEW LAYTON, Manager
Engineering & Corridor Designation Office
Siting, Transmission and Environmental
Protection Division

cc: Docket

Attachment 2

RICE SOLAR ENERGY, LLC
An Affiliate of SOLARRESERVE

July 15, 2010

Mr. Alan J. De Salvio
Supervising Air Quality Engineer
Mojave Desert Air Quality Management District
14306 Park Avenue
Victorville, CA 92392-2310

Subject: Comments on Preliminary Determination of Compliance (PDOC)
Rice Solar Energy Project (09-AFC-10)

Dear Mr. De Salvio:

Thank you for the major effort that the Mojave Desert Air Quality Management District (MDAQMD) has undertaken in the completion of the Preliminary Determination of Compliance (PDOC) for the Rice Solar Energy Project (RSEP), issued on June 10, 2010. Upon review we have the following minor comments for your consideration. The comments below are presented in tracked changes format to facilitate review. Our team has also updated the health risk assessment results, which were submitted to the California Energy Commission (CEC) on June 17, 2010 as Supplemental Information Item 2 (SI2).

PDOC, Page 15, Section (B)(24), Toxics Management, 3rd Paragraph

"The predicted cancer risk at the point of maximum impact (PMI) for the project is ~~0.89~~ 0.77 in a million using the OEHHA derived adjusted method. The maximum predicted chronic and acute hazard indices at the PMI are ~~0.43~~ 0.0058 and ~~0.425~~ 0.59, respectively."

PDOC, Page 18, Section (G)(2), Rule 404 - Particulate Matter Concentration

The unit of measure for 0.05 appears to be missing. Suggest clarifying the units as "0.05 gr/dscf".

PDOC, Page 19, Section (G)(3), MDAQMD Regulation IX Rule 900 – Standards of Performance for New Stationary Source

Title 40 of the Code of Federal Regulations, Part 60,4200 - Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines would apply to the stationary compression ignition engines. Therefore, we respectfully suggests replacing "not applicable" with the following text:

"The temporary and stationary compression ignition engines at RSEP are subject to this regulation which requires the installation of engines that meet specific new non-road compression ignition engine emission standards. This regulation is similar to the California Air Resources Board (CARB) Air Toxic Control Measure (17 CCR §93115)."

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PDOC, Page 24, Section (K) - Health Risk Assessment (HRA)

"The predicted cancer risk at the point of maximum impact (PMI) for the project is ~~0.89~~ 0.77 in a million. The maximum predicted chronic and acute hazard indices at the PMI are ~~0.013~~ 0.0058 and ~~0.125~~ 0.59, respectively."

PDOC, Page 26, Section (M) - MDAQMD Permit Conditions for 98 BHP Engines

The text in Condition 7 appears to reference another condition, but the reference is not included. Suggest adding "5" at the end of the sentence for Condition 7.

Also, the permit numbers in Condition 11 appear to be inconsistent with the permit numbering system used in the source description on Page 25.

If you have any questions on the above comments, please contact me at (310) 315-2275, Jerry Salamy (CH2M) at (916) 286-0207 or Keith McGregor (CH2M) at (916) 286-0221.

Sincerely,
Rice Solar Energy LLC

Jeff Benoit
Senior Project Manager

cc: CEC Docket List
CH2MHILL Project File