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07-AFC-8
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AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN LUIS OBISPO

December 31, 2008

John Kessler
California Energy Commission
1516 Ninth Street
Sacramento, Ca 95814-5512

SUBJECT: APCD Comments Regarding the Carrizo Energy Solar Farm Project AFC Preliminary Staff Assessment (November 2008). (07-AFC-8)

Dear Mr. Kessler,

Thank you for including the San Luis Obispo County Air Pollution Control District (APCD) in the environmental review process. We have completed our additional review of the proposed Carrizo Energy Solar Farm project. APCD would like to thank you for reviewing our comments from our October 28, 2008, letter and responding accordingly in your Preliminary Staff Assessment- Application for Certification for the Carrizo Plains Solar Farm. *The following are APCD more refined comments based on the updated assessment you provided that are pertinent to this project.*

GENERAL COMMENTS

As a commenting agency in the California Environmental Quality Act (CEQA) review process for a project, the APCD assesses air pollution impacts from both the construction and operational phases of a project, with separate significant thresholds for each. The particular section that is being commented will be in bold font, capitalized and underlined and below will be APCD comments. **Please address the action items contained in this letter that are highlighted by bold and underlined text**.

The Air Quality Section of the Staff Assessment includes references to a "District." For clarification purposes, if this is referring to the San Luis Obispo County Air Pollution Control District, please replace this reference with SLO County APCD.

CONSTRUCTION PHASE MITIGATION

All of SLO County APCD's construction phase comments and any recommended mitigation requirements are conditional pending the results of an updated Air Quality Table 4 (Maximum Project Construction Impacts). The additional construction activity measures recommended below are based on the assumption that the emissions from this portion of the project will exceed the SLO County APCD's construction thresholds. Prior to the finalization of the Staff Assessment, please provide the SLO County APCD with documentation on how the numbers in the updated table were determined. The construction phase mitigation listed in the Proposed Condition of Certification is currently unsupported because it does not calculate the total emissions from the construction activity and compare those emissions to the SLO County APCD's thresholds of significance.

PROOF OF SERVICE (REVISED 11/25/08) FILED WITH ORIGINAL MAILED FROM SACRAMENTO ON 1/6/08
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Air Quality Table 4: Maximum Project Construction Impacts
This table is incomplete in that it only demonstrates impacts relative to State air quality standards. In addition, it needs to include daily and quarterly impacts relative to the SLO County APCD's construction phase thresholds. For construction, the significance threshold values are 185 lbs of emissions per pollutant per day and 2.5 tons of emissions per pollutant per quarter. Exceeding the 2.5 tons per quarter threshold value would require Best Available Control Technologies (BACT) and exceeding 6 tons per quarter would require BACT as well as off-site mitigation. **Please expand Table 4 to include ozone precursors (NOx and ROG combined), identify the SLO County APCD threshold values, and define whether impacts exceed the threshold values. Modeling Table 4 after the formatting in Air Quality Table 5: Facilities Maximum Daily and Annual Operating Emissions is appropriate.**

Note: 60 days prior to breaking ground or getting a grading permit, you must work with SLO County APCD to demonstrate that the actual construction fleet that will be used is as clean or cleaner than the assumed fleet that was used for the calculations in Table 4. Depending on the results of this evaluation, appropriate mitigation may need to be modified.

Construction Impacts Mitigation
The following are comments relative to the mitigation lettering in your staff assessment:

L. Please use the **5 minute shut down time limit** to be consistent with AQ-SC5.

M. Please include **"CARB Diesel"** in this reference to low sulfur, low aromatic fuel for construction equipment.

O. Please clarify this measure as follows: Use construction equipment that meets state and federal emission standards for Tier II and Tier III **as a minimum and must comply with the State Off- Road Regulation.**

Please add the following mitigation measures in the Construction Phase Mitigation section:

Standard NOx Control Measures for Construction Equipment
The standard construction equipment mitigation measures for reducing nitrogen oxide (NOx) emissions are listed below and in section 6.3.1 of the SLO County's Air Quality Handbook. **These measures are applicable to all projects where construction equipment will be used:**

- Maintain all construction equipment in proper tune according to manufacturer's specifications.
- Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road).

- Maximize, to the extent feasible, the use of diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and must comply with the State Off- Road Regulation.
- Maximize to the extent feasible, the use of on-road heavy-duty equipment and trucks that meet the ARB's 2006 or newer certification standard for on-road heavy-duty diesel engines, and must comply with the State On- Road Regulation.
- All on and off-road diesel equipment shall not be allowed to idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling limit.
- Electrify equipment when feasible;
- Substitute gasoline-powered for diesel-powered equipment, where feasible;
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel;
- Implement construction activity management techniques as follows:
    - Develop a comprehensive construction activity management plan designed to minimize the amount of large construction equipment operating during any given time period;
    - Schedule of construction truck trips during non-peak hours to reduce peak hour emissions;
    - Limit the length of the construction work-day period, if necessary; and,
    - Phase construction activities, if appropriate.

Developmental Burning

Effective February 25, 2000, **the SLO County APCD prohibited developmental burning of vegetative material within San Luis Obispo County.** Under certain circumstances where no technically feasible alternatives are available, limited developmental burning under restrictions may be allowed. This requires prior application, payment of fee based on the size of the project, SLO County APCD approval, and issuance of a burn permit by the SLO County APCD and the local fire department authority. The applicant is required to furnish the SLO County APCD with the study of technical feasibility (which includes costs and other constraints) at the time of application. If you have any questions regarding these requirements, contact the SLO County APCD Enforcement Division at (805) 781-5912.

Construction Permit Requirements

Based on the information provided, we are unsure of the types of equipment that may be present during the project's construction phase. Portable equipment, 50 horsepower (hp) or greater, used during construction activities will require California statewide portable equipment registration (issued by the California Air Resources Board) or an SLO County APCD permit. The following list is provided as a guide to equipment and operations that may have permitting requirements, but should not be viewed as exclusive. For a more detailed listing, refer to page A-5 in the District's CEQA Handbook.

- Power screens, conveyors, diesel engines, and/or crushers;
- Portable generators and equipment with engines that are 50 hp or greater;

- IC engines;
- Unconfined abrasive blasting operations;
- Concrete batch plants;
- Rock and pavement crushing; and
- Trommel screens.

To minimize potential delays, prior to the start of the project, please contact the SLO County APCD Engineering Division at (805) 781-5912 for specific information regarding permitting requirements.

OPERATIONAL PHASE MITIGATION

On page 49 of this section, bullet number 3 should read as follows:

- Wind erosion control techniques such as windbreaks, water and chemical dust suppressants**, that have been approved by the SLO County APCD, shall** be used on areas that could be disturbed by vehicles or wind. Any windbreaks used would remain in place until the soil or road is stabilized: and,

Please see the attached SLO County APCD's Approved Dust Control Methods for Unpaved Private Roads. The above revised wording is needed to ensure that any operational phase unpaved road driving impacts do not result in a PM_{10} threshold exceedance.

On page 49, bullet number 4:
Please indicate the tools that will be implemented to ensure that the facility speed limit, of no more than 5 miles per hour, will be enforced. One example could be for the Compliance Project Manager (CPM) to identify and correct violations.

Please add the following mitigation measures in the Operational Phase Mitigation section to address both a reduction in ozone precursors and greenhouse gas emissions from this project:

1. Increase the habitable building energy efficiency rating by 10% above what is required by Title 24 requirements (this can be accomplished in a number of ways (increasing attic, wall or floor insulation, etc.).
2. Install deciduous shade trees planted closely along southern exposures of buildings to reduce summer cooling needs.
3. Use roof material with a solar reflectance value meeting the EPA/DOE Energy Star® rating to reduce summer cooling needs.
4. Use high efficiency, gas or solar water heaters meeting the EPA/DOE Energy Star® rating.
5. Use built-in energy efficient appliances meeting the EPA/DOE Energy Star® rating.
6. Use double-paned windows.
7. Install door sweeps and weather stripping if more efficient doors and windows are not available.
8. Install high efficiency or gas space heating.

CUMULATIVE IMPACTS AND MITIGATION

The Cumulative Impacts and Mitigation should **include and discuss the impacts that are associated with the nearby Topaz Solar Farm and the Sun Power's proposed California Valley Solar Ranch** that is proposed near the Carrizo project site.

PROPOSED CONDITIONS OF CERTIFICATION

In this section, please **explain the difference between "SC" mitigation and "AQ" mitigation.** Does "SC" mitigation stand for "Staff Conditions?" If not, the acronym needs to be defined for clarification purposes.

All of the measures in this section should be separated by "Construction Phase" and "Operational Phase" for clarification purposes.

AQ-SC1:

This section should read as follows:

"... The project owner shall designate and retain an on-site AQCMM who shall be responsible for directing and documenting compliance with AQ-SC3, AG-SC4, and AQ-SC5 for the entire project site and linear facility construction **for the life of the project**."

The Air Quality Construction Mitigation Manager (AQCMM) needs to also be VE (Visual Emissions) Certified. The AQCMM must be able to witness and evaluate dust emissions to determine if the proposed project is in compliance with the SLO County APCD's Rule 401 20% opacity threshold.

AQ-SC2:

The Air Quality Construction Mitigation Plan (AQCMP) shall be sent to the SLO County APCD for approval. The AQCMM's contact information must also be provided to the SLO County APCD 60 days prior to breaking ground, getting a grading permit and getting a site-permit.

AQ-SC3: (this section should be included in the Construction Activity Management Plan (CAMP) also referred to in the Staff Assessment as the Air Quality Construction Mitigation Plan.

This section should read as follows:

"...The AQCMM shall submit documentation **to the SLO County APCD** and CMP in each Monthly Compliance Report (MCR) that demonstrates compliance with the following mitigation measures for the purposes of preventing all fugitive dust plumes from leaving the Project."

This section also needs to include more information with regards to who the Compliance Project Manager (CPM) is, as well as a name and contact information for that person. This section also needs to include the methods that will be available for the public to get in contact with someone on-site to lodge a complaint. All complaints need to be recorded and be available for SLO County APCD review.

AQ-SC4: That addresses the Dust Plume Response Requirement. (This section should be included in the CAMP/ Air Quality Construction Mitigation Plan)
This section should include the following:

"All PM_{10} mitigation measures required should be shown on grading and building plans. In addition, the Compliance Project Manager (CPM) and the Air Quality Construction Mitigation Manager (AQCMM) should be Visual Emissions (VE) Certified and be able to monitor the dust control program, as well as be able to follow the 20% opacity limit (SLO County APCD Rule 401: Visible Emissions Rule) and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SLO County APCD prior to land use clearance for map recordation and finished grading of the area. A telephone number must also be available for the public to call with complaints.

AQ-SC5: That addresses Diesel-Fueled Engine Control. (This section should be included in the CAMP)
Please address the following issues identified for the lettered measures in this section:

C. Currently there is no ARB certified "soot trap" for a Tier 0 engine. Therefore in essence, if Tier 2 or Tier 1 equipment is not available, this measure as currently stated would allow a Tier 0 equipment to be used without restriction. As currently written this mitigation measure can result in highly polluting equipment being used. This measure needs to reference the fact that appropriate mitigation [e.g., installation of catalyzed diesel particulate filters (CDPF) or other SLO County APCD approved emission reduction retrofit devices] will be defined in cooperation with the SLO County APCD when the finalized equipment list is provided to the SLO County APCD as required to ensure that the equipment is as clean as the list used to generate Table 4.

D. This lettered measure should read as follows, and all numbered conditions should be removed:

The use of a soot filter may be terminated, if in coordination with the device manufacturer, it is determined that the operational issues cannot be resolved. The soot filter may then be removed with notification to the SLO County APCD, followed by a SLO County APCD approved modification to control strategy.

AQ-SC7: That addresses the project owned providing a dust control plan.
This section should read as follows:

"... At least 60 days prior to start of commercial operation, the project owner shall submit to the Compliance Project Manager, a copy of the plan that identifies the **SLO County APCD approved** dust and erosion control procedures that will be used during operation of the project and identifies all locations of speed limit signs, and a copy of the project employee and contractor training manual that clearly identifies that project employees and contractors are required to comply with the dust and erosion control procedures and on-site speed limits."

DISTRICT CONDITIONS

This section needs to be re-titled to read as follows:

"SLO County APCD Permit Conditions for the Operational Phase"

Again, these comments are conditional pending the results of the updated Air Quality Table 4, and depending on the results, additional mitigation may be required. SLO County APCD thanks you for the opportunity to comment on this preliminary staff assessment. If you have any questions or comments, feel free to contact me at 781-5912.

Sincerely,

for

Meghan Field

MDF/AJM/arr

cc: Mr. Perry Fontana
John McKenzie, SLO County Planning and Building Department

Attachments: SLO County APCD's Approved Dust Control Methods for Unpaved Private Roads

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AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN LUIS OBISPO

Approved Dust Control Methods for Unpaved Private Roads

The following list of dust control suppressants are approved by the SLO County APCD. The approved suppressants must be reapplied at a frequency that ensures that fugitive dust emissions do not exceed the 20% opacity limit identified in APCD's 401 "Visible Emissions" rule and such that offsite dust emissions from the site do not occur. The APCD will consider products that are not listed on a case-by-case bases; provide product specifics to APCD by contacting the APCD Planning Division at (805) 781-5912.

With the exception of chipseal, SLO County APCD defined the following list of dust suppressants from a list defined by the San Joaquin Valley APCD [1]." The SLO County list streamlines the San Joaquin list by removing hygroscopic products and all but two petroleum based products.

In addition, any chemical or organic material used for stabilizing solids shall not violate the California State Water Quality Control Board standards for use as a soil stabilizer. Any dust suppressant must not be prohibited for use by the US Environmental Protection Agency, the California Air Resources Board, or other applicable law, rule, or regulation.

Suppressant Category	Suppressant Sub-Category	Product Common Name	Company	Product Web Link
Adhesives	Lignosulfonate	• DC-22	Dallas Roadway Products, Inc. SALS Roadway Products (972) 758-7454	www.dallasroadway.com www.salsroadproducts.com
		• Dustac, Dustac-100	Georgia Pacific (866) 447-2436, (800) 283-5547	www.gp.com/chemical
		• CalBinder	California-Fresno Oil Co. (209) 486-0220	www.calfresno.com
		• Lignin LS-50™	Prince Minerals, Inc. (646) 747-4200	www.princeminerals.com/products/dust_control.php
		• Lignosulfonate	EnviroTech Services (800) 369-3878	www.envirotechservices.com
		• Polybinder	Jim Good Marketing (805) 746-3783	
	Calcium Lignosulfonate	• Dustac® Road Binder	Quatsino Navigation Co. Ltd (916) 442-9089	http://www.bellmarine.com/Dustac.htm
		• Calcium Lignin LS-50™	Prince Minerals, Inc. (646) 747-4200	www.princeminerals.com/products/dust_control.php
Petroleum Emulsions	-	• PennzSuppress-D [2]	PennzSuppress® Dust Suppressant American Refining Group, Inc. (814) 368-1200	www.arb.ca.gov/eqpr/pennzoil/pennzoil.htm

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Page 2: SLO County APCD Approved Dust Control Methods for Unpaved Private Roads

Polymer Emulsions	-	• DC-1000	Desert Mountain (505) 598-5730	www.desertmtncorp.com
		• Earthbound, Earthbound L	Earth Chem, Inc. (800) 764-5726	www.earthchem.com
		• PolyPavement	PolyPavement Company (323) 954-2240	www.polypavement.com
		• Liquid Dust Control	Enviroseal Corporation (800) 775-9474	www.enviroseal.com/ldc.htm
		• Marloc	Reclamare Co. (206) 824-2385	
		• Soiloc-D	Hercules Soiloc (800) 815-7668	
		• Soil Seal	Trans Western Chemicals, Inc. (562) 942-1833	www.soilseal.com
		• Soil Sement [2]	Midwest Industrial Supply, Inc. (800) 321-0699	www.arb.ca.gov/eqpr/midwest.htm
		• TerraBond PolySeal	Fluid Sciences, LLC (888) 356-7847	www.fluidsciences.com
		• Aerospray 70A	Cytec Industries (800) 835-9844	www.cytec.com
		• Soil Master WR	Environmental Soil Systems, Inc. (800) 368-4115	
		• Top Shield	Base Seal International, Inc. (800) 729-6985	www.baseseal.com
Oil-Rock Binding Agent	-	• Chipseal [3]		

[1] Re: www.valleyair.org/busind/comply/PM10/Products%20Available%20for%20Controlling%20PM10%20Emissions.htm

[2] "Pre-certified" by the California Air Resources Board; www.arb.ca.gov/eqpr/eqpr.htm

[3] Though chipseal is typically used as a sealant for paved roads, it can also be an effective dust suppressant on unpaved private roads. Project proponents accept liability of potential vehicle or property damage associated with this dust control method.

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION FOR THE *CARRIZO ENERGY SOLAR FARM PROJECT*	**Docket No. 07-AFC-8** **PROOF OF SERVICE** **(Revised 11/25/2008)**

INSTRUCTIONS: All parties shall either (1) send an original signed document plus 12 copies or (2) mail one original signed copy AND e-mail the document to the address for the Docket as shown below, AND (3) all parties shall also send a printed or electronic copy of the document, which includes a proof of service declaration to each of the individuals on the proof of service list shown below:

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Attn: Docket No. 07-AFC-8
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DECLARATION OF SERVICE

I, Hilarie Anderson declare that on January 6, 2009, I deposited copies of the attached Carrizo PSA Comments in the United States mail at Sacramento, CA with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

OR

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.

Original Signature in Dockets
Hilarie Anderson

*indicates change