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<b>DOCKET</b>	
<b>08-AFC-2</b>	
DATE	JAN 22 2009
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**AECOM**

January 22, 2009

Mr. David L. Jones  
Air Pollution Control Officer  
Kern County Air Pollution Control District  
2700 "M" Street, Suite 302  
Bakersfield, CA 93301

**Subject: Comments of Preliminary Permit for Beacon Solar LLC 250-MW Solar Trough Power Plant**

Dear Mr. Jones:

On behalf of NextEra Energy Resources (formerly FPL Energy), AECOM Environment (formerly ENSR) reviewed the December 23, 2008 Preliminary Determination of Compliance (PDOC) for the Beacon Solar Energy Project. We have previously offered input during preparation of the PDOC and the following comments supplement our previously submitted suggestions. Issues relating to a specific equipment permit are addressed in the following text, and these are followed by comments on the Engineering Evaluation which has not previously been reviewed.

**Application 0369005 – Vapor Control System**

There is a typographical error in Design Conditions, b. The condition should read "...system shall have provisions for..." or, "... system shall provide provisions for..."

**Application 0369007 – Bio-Remediation of Hydrocarbon Contaminated Soil**

When the bio-remediation area is used and volatile organic compound (VOC) readings are over 50 ppm, the PDOC requires monthly monitoring with an average of nine readings over the surface area of pH, soil moisture (percent weight), soil temperature and nutrient ratio (carbon:nitrogen:phosphorus). Although a large area has been designated for the bioremediation, it is probable that only a portion of the area would be used at any given time. Therefore, AECOM suggests that the number and frequency of samples be tied to the specific area to be monitored. Condition 3 already requires that a protocol must be submitted and approved by District Staff, so we recommend that condition 5.c be revised as follows:

- c. The following parameters in the treatment area shall be monitored according to the approved protocol: VOC readings over the treatment area in use, soil acidity (PH), soil moisture content (% weight), soil temperature (°F), and nutrient ratio (C:N:P).

At this point in time, the appropriate moisture content is not known. The moisture content needs to be established on a site-specific basis, and it is premature to require a specific moisture content of 12 to 30 percent by weight without operational experience. Condition 6 should be deleted or also referenced to the approved protocol.

Regarding the Emission Limits for this permit, AECOM believes that daily and annual VOC emissions are not quantifiable and should be deleted from the permit. HTF has an extremely low volatility at ambient conditions regardless of how the bioremediation facility is operated, and the VOC emissions are negligible. Thus, verification of daily and annual emissions is also unnecessary. Records of the quantity of HTF spilled and quantity of soil placed into the bioremediation unit would be more useful.

## PDOC Engineering Evaluation

Section V.A, 9<sup>th</sup> line in the paragraph related to Boilers: there is a typographical error, and should read, "...Boilers will be equipped with low NOx ~~boilers~~ **burners**..."

Section VIII.C, Item 4, ATC No. 0369005 Vapor Control System: There is a calculation error in the formula such that the calculated Maximum Volume of 481.25 ft<sup>3</sup> and the four subsequent equations are off by a factor of 10. Also, there is a calculation error in the formula for the calculated pound per hour (lb/hr) value of 0.626 shown is off by another factor of 10. Both of these errors yield in a difference of a factor of 100 for the resulting tons per year calculation. Using the formulas provided the corresponding numbers would be 4,812.5 ft<sup>3</sup>, 62.6 lb/hr, 125 pounds per day (lb/day), and 23 tons per year (tpy). However, the method used to calculate these numbers seriously overestimates the potential emissions, because it assumes the uncontrolled emissions rate requires the total volume of the 6 tanks to be released in one hour. The BSEP application was based on data provided by WorleyParsons representing an engineering estimate. Values given in the application are expected to represent more realistic estimates of 0.23 lb/hr, 0.47 lb/day, and 0.09 tpy.

Section VII C Item 4, ATC No. 0369005 (Vapor Control System – Carbon Canisters): There is a discrepancy between the control efficiency. 95 percent control efficiency was used in the emissions calculations and given in Operational Condition 2, yet the calculation heading says to use 99.5 percent control efficiency. For consistency purposes, the calculation heading should also be for 95 percent.

Section VII C Item 6, ATC No. 0369007 (Bio-Remediation Operation), Uncontrolled VOC Emissions, third equation: there is a typographical error, and should read: 1.069 lb/day x 365 ~~hours~~ **days**/year x 0.0005 tons/lb = 0.1985 tons/year

Section VII. C Item 7, Emissions Summary: There is a discrepancy in the emission totals. The table states that the emergency equipment, the firewater pump, emissions are not added to the NSRB or the SSPE. However, the total emissions calculated in that section, Section IX. A Emissions Changes, and Section IX. C Post-Project Cumulative NSR Balance and SSPE have included the firewater pump emissions calculated for 200 hour of operation per year. (Note, the firewater pump will be limited to operating for 50 hours per year for maintenance and testing, but the District is also restricting its operation to up to 200 hours per year including emergency use).

We appreciate your consideration of these comments. Should you wish to discuss any of these comments, please contact either of the undersigned at 805-388-3775.

Sincerely yours,



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**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION  
OF THE STATE OF CALIFORNIA**

**APPLICATION FOR CERTIFICATION FOR  
THE BEACON SOLAR ENERGY PROJECT**

DOCKET NO. 08-AFC-2

**PROOF OF SERVICE**  
(Revised 1/13/09)

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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1516 Ninth Street, MS-14  
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**DECLARATION OF SERVICE**

I, Lois Navarrot, declare that on January 28, 2009, I deposited copies of the attached **Beacon Energy Solar Project’s Letter to Kern County Air Pollution Control District with Comments on Preliminary Permit for Beacon Solar LLC 250-MW Solar Trough Power Plant dated January 22, 2009** in the United States mail at Sacramento, California 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 the 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.

