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07-AFC-3	
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RECD.	<u>OCT 29 2010</u>

STATE OF CALIFORNIA
Energy Resources Conservation
And Development Commission

In the Matter of:)
))
Application for Certification for the)
CPV Sentinel Energy Project)
by the CPV Sentinel, L.L.C.)

Docket No. 07-AFC-3

**ENERGY COMMISSION STAFF COMMENTS ON CPV SENTINEL ENERGY
PROJECT PRESIDING MEMBERS PROPOSED DECISION**

Energy Commission Staff (Staff) provides the attached comments on the Sentinel Presiding Member’s Proposed Decision (PMPD). Staff is providing comments in the technical areas of Greenhouse Gas Emissions, Air Quality, Cultural Resources and Soil and Water Resources. These comments are predominantly technical in nature.

With regard to Air Quality, because AB 1318 imposes specific requirements on the Energy Commission, staff strongly recommends that the Final Decision include additional findings of fact and conclusions of law with regard to the transfer of credits pursuant to that legislation. Finally, staff notes that the South Coast Air Quality Management District will be filing its own comments; if those arrive after staff files these comments, they will be separately filed.

The Committee held a hearing on whether the offset air credits meet AB 1318’s requirement that “the credits to be credited and transferred satisfy all applicable legal requirements.” (Health & Saf. Code, Section 40440.14(c).) At this hearing, evidence was introduced that supports a conclusion that the requirements of AB 1318 have been met. Staff believes that the following Air Quality findings and conclusions should augment those in the PMPD to show that the requirement has been satisfied.

FINDINGS OF FACT

23. SCAQMD has created internal offset accounts for each pollutant and has verified that the sources from which the offsets generated had valid permits, that those permits are inactive, that the source has been shut down or “overcontrolled,” and that the owner never claimed or was not eligible to claim emission reduction credits for such reductions.

24. SCAQMD established an “AB 1318 Tracking System” to account for the offsets it will transfer to the Sentinel project.

25. The tracking system identifies offsets only from facilities whose permits have been “inactivated,” and are identified in Tables A and B of SCAQMD’s May 12, 2010, filing with the Commission (Exh. 141).

26. The tracking system incorporates multiple verification steps, and uses conservative assumptions in determining the amount of offsets that are available for the Sentinel project.

27. The AB 1318 Tracking System identifies 132, 816 pounds of PM10 and 24,550 pounds of SOx offsets available to the Sentinel project.

28. Prior to the issuance of a permit to construct for the Sentinel project, SCAQMD will review and adjust each of the AB 1318 Tracking System offsets as necessary to assure that it remains surplus, and such adjustment will include reductions to reflect the requirements of any federal, state, or local air pollution laws that have become applicable to that source category since the time of shutdown.

29. SCAQMD has performed a preliminary “surplus adjustment” for the offsets contained in Tables A and B of Exhibit 141, and determined that there are more than sufficient offsets to meet the requirements of the Sentinel project.

30. [Current findings 23 from the PMPD would follow, as well as the other PMPD findings of fact.]

CONCLUSIONS OF LAW

3. The Sentinel project is an “eligible electric generating facility” as that term is used in Health and Safety Code Section 40440.14 and related provisions.

4. SCAQMD’s “AB 1318 Tracking System” complies with the requirements of Health and Safety Code Section 40440.14.

5. The offsets identified by the “AB 1318 Tracking System” are federally enforceable, or otherwise will become federally enforceable prior to operation of the project, consistent with EPA guidance.

6. All offsets identified as available for the Sentinel project pursuant to the “AB 1318 Tracking System” are surplus.

7. The offsets to be credited and transferred to the Sentinel project satisfy all applicable legal requirements, as required by Health and Safety Code Section 40440.14.

Date: October 28, 2010

Respectfully submitted,

 /s/ Richard Ratliff
RICHARD C. RATLIFF
Staff Counsel IV

 /s/ Caryn Holmes
CARYN J. HOLMES
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A. GREENHOUSE GAS (GHG) EMISSIONS

Pages 10 – 11, Findings of Fact

7. The maximum annual CO₂ emissions from the SENTINEL' Sentinel Project's operation will be 960,504 MTCO₂E, which constitutes an emissions performance factor of 0.451 MTCO₂E / MWh.
13. Even as more renewable generation is added to the California electricity system, gas-fired power plants such as the Sentinel Project will be necessary to meet local capacity requirements and to provide intermittent generation support, grid operations support, extreme load and system emergencies support, and general energy support.
14. There is no evidence in the record that construction or operation of the Sentinel Project will be inconsistent with the loading order.
15. When it operates, the Sentinel Project will have a heat rate of 8,468 ~~8.468~~ Btu/kWh.
16. When it operates, the Sentinel Project will displace generation from less-efficient (i.e., higher-heat-rate and therefore higher-GHG-emitting) power plants in the Los Angeles Basin Local Capacity Requirements Area.
19. Intermittent generation needs dispatchable generation, such as the ~~SENTINEL,~~ Sentinel Project in order to be integrated effectively into the electricity system.

Page 12, Conclusions of Law

6. The ~~SENTINEL's~~ Sentinel Project's construction and operation will be consistent with California's loading order for power supplies.
10. The Sentinel Project ~~project~~ will not interfere with generation from existing renewables or with the integration of new renewable generation; and
11. Taking into account Conclusions of Law 9 and 10 above, the Sentinel Project ~~project~~ will reduce system-wide GHG emissions.

B. AIR QUALITY

Page 3, Air Quality Table 1

AIR QUALITY Table 1
Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standard	Federal Standard
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	--
	8 Hour	0.07 ppm (140 µg/m ³)	0.075 ppm (147 µg/m ³)
Respirable Particulate Matter (PM ₁₀)	24 Hour	50 µg/m ³	150 µg/m ³
	Annual*	20 µg/m ³	--
Fine Particulate Matter (PM _{2.5})	24 Hour	--	35 µg/m ³
	Annual*	12 µg/m ³	15 µg/m ³
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)
	8 Hour	9 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)
Nitrogen Dioxide (NO ₂)	1 Hour	0.18 ppm (338 µg/m ³)	0.100 ppm**
	Annual*	0.030 ppm (56 µg/m ³)	0.030 ppm (56 µg/m ³)
Sulfur Dioxide (SO ₂)	1 Hour	0.25 ppm (655 µg/m ³)	--
	3 Hour	--	0.5 ppm (1300 µg/m ³)
	24 Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)
	Annual*	--	0.03 ppm (80 µg/m ³)
Lead	30 Day Average	1.5 µg/m ³	--
	Calendar Quarter	--	1.5 µg/m ³
	Rolling 3-Mo. Ave	--	0.15 µg/m ³
Sulfates	24 Hour	25 µg/m ³	--
Hydrogen Sulfide (H ₂ S)	1 Hour	0.03 ppm (42 µg/m ³)	--
Vinyl Chloride (chloroethene)	24 Hour	0.010 ppm (26 µg/m ³)	--
Visibility Reducing Particulates	8 hours	In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent.	--

* Annual Arithmetic Mean;

**Three-year average of 98th percentile daily maximum 1-hour values, scheduled to become effective April 12, 2010. This project is not subject to this new standard as discussed in the text. (Ex. 200, p. 2.1-7.)

Page 4, 2nd paragraph

PAGE 4, 2ND PARAGRAPH, SUMMARY OF THE EVIDENCE

The CPV Sentinel project site is under the jurisdiction of the South Coast Air Quality Management District (“SCAQMD” or “the District”). The entire area within the boundaries of an air district is usually evaluated to determine the SCAQMD attainment status. However, the project is located in the Salton Sea Air Basin (SSAB), and local attainment status is classified separate from the South Coast Air Basin. **AIR QUALITY Table 2** lists the attainment and non-attainment status of the District SSAB for each criteria pollutant for both the federal and state ambient air quality standards. (Ex. 214, p. 2.1-8.)

Page 5, 2nd and 3rd paragraphs, SCAQMD’s Final Determination of Compliance

In the power plant certification process, the District’s FDOC serves as an in-lieu Authority to Construct (ATC) permit or is the basis of an ATC permit, which is required for new air pollution sources within the District’s jurisdiction. The District also requires a Title V permit to be issued by the District before construction may begin. The ATC cannot be implemented unless the Energy Commission certifies the project. (Pub. Res. Code § 25500; Cal. Code Regs, tit. 20, §§ 1744.5, 1752.3.)

1. Ambient Air Quality

Ambient air quality data has been collected extensively in the air basin. The maximum ambient measurements for the years ~~1999~~ 2001 through ~~2005~~ 2007 show that as of 2007 ozone, PM10, and PM2.5 continue to violate applicable standards while CO, NO₂ and SO₂ do not violate the standard. ~~The record indicates the new federal short-term NO₂ standard was not evaluated because the application for this project was submitted before this new standard was proposed for adoption. The EPA has not developed a dispersion model post-processor to calculate the statistical compliance with the new standard, and a determination of the air basin attainment status is not scheduled until January 2012. (Ex. 214, pp. 2.1-7 to 2.1-8).~~ U.S. EPA has issued a new standard for short-term NO₂ impacts that became effective in April 2010. EPA has subsequently issued guidance indicating that the standard is applicable to federal Prevention of Significant Deterioration (PSD) projects. Sentinel does not trigger PSD thresholds and does not require a PSD permit, so the new standard is inapplicable.

Page 6, 3rd paragraph, Ozone (O₃)

Both NO_x and VOC go through a number of complex chemical reactions to form ozone. (Ex. 214, p. 2.1-9.)

~~At the time the project application was submitted, t~~The SCAQMD ~~is~~was designated as severe-17 non-attainment for the 8-hour ozone standard (the second worst classification), ~~meaning that the South Coast air basin ambient ozone design concentration is 0.280 ppm or above and it did not reach attainment before 2007. Since that time EPA has re-designated the SCAQMD as “extreme” non-attainment for the 8-hour ozone standard.~~ Efforts to achieve ozone attainment typically focus on controlling the ozone precursors, which are NO_x and VOC. SCAQMD-published state implementation plans (SIP) largely rely on the CARB to control mobile sources, the U.S. EPA to control emission sources under federal jurisdiction, and SCAQMD to control local industrial sources. Through these control measures, California and the SCAQMD are required to reach attainment of the federal 8-hour ozone ambient air quality standard by ~~2021~~ 2024 (2013 in the Coachella Valley). (Ex. 214, p. 2.1-10.)

Page 7, 1st paragraph, Ozone (O₃)

Though there are a significant number of exceedances of the ozone ambient air quality standards throughout the South Coast air basin, improvements have occurred in recent years. The record shows that SCAQMD leads the nation in air quality management methods and its regulatory programs have significantly improved the air quality in spite of the growing population and industrial and commercial enterprises. **AIR QUALITY Figure 1** shows the improvements in ozone air quality levels over the past 16 years in the South Coast air basin, especially in the intermediate region near the proposed project site. As shown in **AIR QUALITY Figure 1**, in 2003 there was a slight increase over prior years in the number of exceedances recorded. Since 2003 however, the downward trend has returned, approaching the 2002 lower number of exceedances. ~~However, t~~The trends for Redlands and Palm Springs suggest these areas will ~~not meet the original federal attainment date of 2010, but instead will~~ meet federal attainment in 2013 for the Coachella Valley and 2021 for the remainder of the South Coast air basin. (Ex. 214, p. 2.1-11.)

Page 8, 2nd paragraph, Respirable Particulate Matter (PM₁₀)

~~San Bernardino County (but not the entire~~The South Coast air basin has been designated a non-attainment area for the federal 24-hour and annual PM₁₀ ambient air quality standards. The SCAQMD has recently taken action to have the Salton Sea Air

Basin (SSAB), which includes the project site, redesignated as attainment for PM10. The SCAQMD and CARB Governing Boards have already approved the SSAB PM10 Redesignation and Maintenance Plan (RMP) for submittal to EPA for inclusion in the SIP (Ex. 146). However, the area is still classified as non-attainment for Federal PM10 standards until EPA approves the SIP, which would likely occur within one to two years. The South Coast air basin ~~(including a portion of San Bernardino County within the basin)~~ has been designated as a non-attainment zone for the state 24-hour and annual PM10 ambient air quality standards. **AIR QUALITY Figure 2** below shows the number of days each year on which exceedances of the state 24-hour PM10 standard occurred for three representative monitoring regions: coastal, project site, and inland. The data shows some improvement over the period, but overall the PM10 problem persists. (Ex. 214, pp. 2.1-12 to 2.1-13.)

Page 10, 1st paragraph, Fine Particulate Matter (PM2.5)

Although the South Coast air basin is designated as non-attainment for all state and federal PM2.5 AAQS, the record indicates that SCAQMD has not yet finished preparing a PM2.5 SIP. The record shows that SCAQMD has submitted a PM2.5 SIP, and once the plan is approved by USEPA, the SCAQMD will prepare revised NSR rules that will likely require offsetting of PM2.5 emissions to the extent required by federal law. The SCAQMD is thus unlikely to address PM2.5 in their rules within the schedule of this proposed project. Nevertheless, the record establishes that the Salton Sea Air Basin (SSAB) is not classified as non-attainment for federal and state ambient air quality standards for PM2.5. (SSAB is Unclassified for state and Unclassified/Attainment for federal.) Therefore, offsets are not specifically required for PM2.5 to demonstrate compliance with the Clean Air Act. (Ex. 214, pp. 2.1-15; 2.1-43.)

Page 16, 1st paragraph, Construction Impacts

As the modeling results in **AIR QUALITY Table 5** shows, the project's construction emissions will not cause a new violation of the NO₂, CO and SO₂ ambient air quality standards, and thus the evidence does not prove these impacts to be significant. Nevertheless, the record indicates that the particulate emissions from the construction of the project could create a potentially significant impact because they will contribute to existing violations of the annual and 24-hour average PM10 and the 24-hour federal PM2.5 AAQS. Those emissions must be mitigated to a level of insignificance. ~~The record discloses that the NO₂ results in **AIR QUALITY Table 5** are not in the form required to evaluate compliance with the new federal 1-hour NO₂ standard. The new~~

~~federal short-term NO₂ standard is not evaluated because the application for the Sentinel project was submitted well before this new standard was proposed for adoption. The U.S. EPA has not developed a dispersion model post-processor to calculate the statistical compliance with the new standard and a determination of the air basin attainment status is not expected until January 2012. (Ex. 214, p. 2.1-25.) U.S. EPA has issued a new standard for short-term NO₂ impacts that became effective in April 2010. EPA has subsequently issued guidance indicating that the standard is applicable to federal Prevention of Significant Deterioration (PSD) projects. Sentinel does not trigger PSD thresholds and does not require a PSD permit, so the new standard is inapplicable.~~

Page 25, 3rd paragraph, Emission Offsets

~~Ordinarily, t~~The project ~~must~~ would need to obtain sufficient offsets to satisfy ~~either~~ SCAQMD Rule 1303 (which requires Emission Reduction Credits (ERCs) or Priority Reserve offsets and Regulation XX (which requires participation in the RECLAIM program for NO_x) as well as to mitigate the project impacts under CEQA. Pursuant to AB 1318 (2009, Pérez), the SCAQMD is required to provide PM and SO_x offsets from its internal bank for this project. **AIR QUALITY Table 8** summarizes the project plan to offset or otherwise mitigate the CPV Sentinel project emission impacts. (Ex. 214, p. 2.1-33.)

Page 28, last paragraph, Emission Offsets

The record indicates that for the purposes of the AB 1318 Tracking System, which consists of the U.S. EPA-approved tracking system in place prior to the passage of Rule 1315 plus minor source reductions and shutdowns, the SCAQMD has identified a series of emission offsets for PM₁₀ and SO_x (see **AIR QUALITY ATTACHMENTS A and B**) which have been created as a result of reductions from permitted equipment that permanently ceased operation in SCAQMD. The record shows that these offsets all meet the integrity criteria for qualifying as offsets, meaning they are all real, permanent, quantifiable, enforceable and surplus, as required by SCAQMD Rule 1309(b)(4) & Rule 1309(b)(5). These offsets result from permitted equipment that permanently ceased operation in the SCAQMD since 1990 and the SCAQMD has not issued any ERCs to the companies who operated the equipment as a result of the reductions. These PM₁₀ and SO_x offsets have been removed from the SCAQMD's internal offset accounts and have not been used by any other source permitted by SCAQMD. (Ex. 141, Appendix N pp. 6-7).

Page 31, 4th paragraph, Emission Offsets

The record indicates that the offsets identified by SCAQMD have been reviewed and determined by Energy Commission staff to satisfy all applicable legal requirements. (Ex. 214, p. 2.1-36; Ex. 216, p. 2.) These offsets all meet the integrity criteria for qualifying as offsets, meaning they are all Real, Permanent, Quantifiable, Enforceable and Surplus, as required by federal law. (Ex. 214, p. 2.1-35). Further, the CPV Sentinel AFC Committee made a thorough review of the record and concurs with the Staff, Applicant and SCAQMD that the emission credits to be credited and transferred satisfy all applicable legal requirements (see discussion, below, under PM10 and SOx Emissions and Offsets in the “Adequacy of Proposed Mitigation” section of this Decision).

Page 38, 2nd paragraph, Cumulative Impacts

The emissions of NOx and SOx from the CPV Sentinel project do have the potential (if left unmitigated) to cumulatively contribute to higher PM10/PM2.5 levels in the region. These impacts could be considered significant because they would contribute to ongoing violations of the state and federal PM10~~2.5~~ ambient air quality standards. However, emission offsets that will be provided by CPV Sentinel reduce potential impacts to a level that would be cumulatively less than significant. (Ex. 214, p. 2.1-56.)

Page 42, 2nd paragraph, Compliance with LORS

RULE 1303(b)(2) and Rule 2005(b)(2)-Offsets – LMS100 PA CTGs

Since CPV Sentinel is a new facility with an emissions increase, offsets will be required for all criteria pollutants. CPV Sentinel will be included in NOx RECLAIM and as such, NOx increases will be offset with RTCs at a 1.0 to1 ratio. Non-RECLAIM criteria pollutants (CO, VOC, SOx, and PM10) will be offset by either the purchase of Emission Reduction Credits (ERCs) at a 1.2 to 1 ratio and/or other means, as allowed under District Rules and Regulations, at a 1.2 to 1 ratio state law, and the SIP amendment regarding AB 1318. CPV Sentinel has indicated that the required amounts of offsets will be provided prior to issuance of the Facility Permit. Compliance with offset requirements of Rules 1303(b)(2) and 2005(b)(2) is expected. (Ex. 214, p. 2.1-59.)

Page 44, 2nd paragraph, REGULATION XVII-Prevention of Significant Deterioration

Based on the Governing Board's actions, this rule is ineffective and no analysis is required for any pollutant subject to federal PSD requirement. The SCAQMD has sent the Applicant a notification to contact the U.S. EPA directly for applicability of PSD to the proposed project. SCAQMD sent a letter to the Applicant on December 8, 2005, and instructed the Applicant to contact U.S. EPA directly regarding implementation of PSD. PSD requires major sources to obtain permits for attainment pollutants. A major source for a simple-cycle combustion turbine is defined as any one pollutant exceeding 250 tons per year. Since the emissions from the CPV Sentinel project are not expected to exceed 250 tons per year, PSD does not apply. (Ex. 214, pp. 2.1-60 to 2.1-61) Since the project was evaluated, SCAQMD has received partial delegation from EPA to implement PSD, including for new sources. However, as noted above, PSD does not apply to this project.

Page 45, Rule 2005(h) – Public Notice

CPV Sentinel ~~will comply~~ has complied with the requirements for Public Notice found in Rule 212. Therefore compliance with Rule 2005(h) is demonstrated. (Ex. 214, p. 2.1-62.)

Page 45, Rule 2005(j) – Compliance with State and Federal NSR.

CPV Sentinel will comply with the provisions of this rule by having demonstrated compliance with SCAQMD NSR Regulations XIII, and AB 1318 as applicable, and Rule 2005-NSR for RECLAIM. (Ex. 214, p. 2.1-62.)

Page 46, REGULATION XXX – Title V

CPV Sentinel is a Title V facility because the cumulative emissions will exceed the Title V major source thresholds and because it is also subject to the federal acid rain provisions. The initial Title V permit ~~will be~~ was processed and the required public notice ~~will be~~ was sent along with the Rule 212(g) Public Notice, which is also required for this project. U.S. EPA ~~is~~ was afforded the opportunity to review and comment on the project within a 45-day review period. (Ex. 214, p. 2.1-62.)

C. CULTURAL RESOURCES

Page 2, SUMMARY AND DISCUSSION OF THE EVIDENCE. 1. SETTING. FIRST PARAGRAPH, SECOND SENTENCE.

It is approximately 25 miles northwest of the prehistoric shoreline of Lake Coachella Cahuilla.

Comment: It appears that the name of the Coachella Valley was used instead of the correct name of Lake Cahuilla.

Page 2, SUMMARY AND DISCUSSION OF THE EVIDENCE. 1. Setting. First paragraph, last sentence.

There is very little evidence to support the presence of human occupation within the Coachella Valley during the late Pleistocene or early Haglocene periods.

Comment: This appears to be a typographical error in the spelling of Holocene.

Page 6, FINDINGS OF FACT, # 6.

The Project Owner will report daily on all monitoring activities, and through a Cultural Resources Report (CRR).

Comment: Staff recommends making these additions to Finding #6 because it more accurately reflects reporting requirements specified in condition of certification **CUL-6**.

Page 7, FINDINGS OF FACT, # 8.

The Project Owner will obtain the services of a Native American monitor to observe ground disturbance activities in areas where Native American artifacts ~~are~~ may be discovered.

COMMENT: Staff recommends the addition of the words “may be,” rather than “are,” because this change accurately reflects the language of condition of certification **CUL-6**.

PAGE 10, CUL-2. FIRST AND SECOND SENTENCES.

~~Prior to ground disturbance, if the CRS has not previously worked on the project, the Project Owner shall provide the CRS with copies of the AFC, data responses, and confidential cultural resources reports for the project. Prior to the start of preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, or construction,~~

COMMENT: Ordinarily, staff places language that indicates the type of construction activity that may trigger compliance with a condition at the beginning of a condition to ensure that the timing of the requirement is not overlooked by the Project Owner. In addition, staff provided a footnote to CUL-1 that specified the term “ground disturbance” as defined in the General Conditions for this project, includes the terms “preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, or construction.” Staff assumes that wherever else in the conditions that follow, the same definition is to be understood. To reduce redundant wording, and to ensure consistency throughout conditions, and with the General Conditions of Certification for this project, staff recommends changing “preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, or construction” to “ground disturbance.”

PAGE 10, CUL-10 VERIFICATION # 1, SECOND SENTENCE.

The CPM ~~shall~~ will review submittals in consultation with the CRS and approve maps and drawings suitable for cultural resources planning activities.

COMMENT: Staff recommends restoring “will” to the sentence because the conditions can only require compliance by the Project Owner, and the sentence refers to the Compliance Project Manager (CPM).

All of the remaining recommended changes below are the same, and staff’s explanatory comments about these identical changes follow the list.

PAGE 7, CONDITIONS OF CERTIFICATION, CUL-1, LAST CONDITION SENTENCE ON PAGE, CONTINUED TO PAGE 8.

~~No preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, or construction shall occur prior to Compliance Project Manager (CPM) approval of the CRS unless specifically approved by the CPM.~~

PAGE 9, CONDITIONS OF CERTIFICATION, CUL-1, VERIFICATION # 1.

At least 45 days prior to the start of ~~preconstruction site mobilization, construction~~ ground disturbance, ~~construction grading, boring and trenching, or construction~~, the Project Owner shall submit the resume for the CRS, and alternate(s) if desired, to the CPM for review and approval.

PAGE 9, CONDITIONS OF CERTIFICATION, CUL-1 VERIFICATION # 3, FIRST SENTENCE.

At least 20 days prior to ~~preconstruction site mobilization, construction~~ ground disturbance, ~~construction grading, boring and trenching, or construction~~, the CRS shall provide a letters naming anticipated CRMs for the project and stating that the identified CRMs meet the minimum qualifications for cultural resource monitoring required by this Condition.

PAGE 9, CONDITIONS OF CERTIFICATION, CUL-1 VERIFICATION #5, FIRST SENTENCE.

At least 10 days prior to the start of ~~preconstruction site mobilization, construction~~ ground disturbance, ~~construction grading, boring and trenching, or construction~~, the Project Owner shall confirm in writing to the CPM that the approved CRS will be available for on-site work and is prepared to implement the cultural resources Conditions.

PAGE 9, CONDITIONS OF CERTIFICATION, CUL-2, SECOND SENTENCE.

Prior to the start of ~~preconstruction site mobilization, construction~~ ground disturbance, ~~construction grading, boring and trenching, or construction~~, the Project Owner shall also provide the CRS and the CPM with maps and drawings showing the footprint of the power plant and all linear facilities.

PAGE 10, CONDITIONS OF CERTIFICATION, CUL-2, LAST SENTENCE OF FIRST PARAGRAPH.

No ~~preconstruction site mobilization, construction~~ ground disturbance ~~construction grading, boring and trenching, or construction activities~~ shall occur prior to CPM approval of maps and drawing unless specifically approved by the CPM.

PAGE 10, CONDITIONS OF CERTIFICATION, CUL-2, VERIFICATION # 1, FIRST SENTENCE.

At least 40 days prior to the start of ~~preconstruction site mobilization, construction~~ ground disturbance, ~~construction grading, boring and trenching, or construction~~, the

Project Owner shall provide the AFC, data responses, and confidential cultural resources documents to the CRS, if needed, and the subject maps and drawings to the CRS and CPM.

PAGE 10, CONDITIONS OF CERTIFICATION, CUL-2, VERIFICATION # 2, FIRST SENTENCE.

If there are changes to any project-related footprint, revised maps and drawings shall be provided at least 15 days prior to start of ~~preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, or construction,~~ for those changes.

PAGE 10, CONDITIONS OF CERTIFICATION, CUL-2, VERIFICATION # 4, FIRST SENTENCE.

On a weekly basis during ~~preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, or construction,~~ a current schedule of anticipated project activity shall be provided to the CRS and CPM by letter, e-mail, or fax.

PAGE 11, CONDITIONS OF CERTIFICATION CUL-3, FIRST SENTENCE.

Prior to the start of ~~preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, or construction,~~ the Project Owner shall submit the Cultural Resources Monitoring and Mitigation Plan (CRMMP), as prepared by or under the direction of the CRS, to the CPM for review and approval.

PAGE 12 CONDITIONS OF CERTIFICATION CUL-3, VERIFICATION # 2, FIRST SENTENCE.

At least 30 days prior to the start of ~~preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, or construction,~~ a letter shall be provided to the CPM indicating that the Project Owner will pay curation fees for any materials collected as a result of the archaeological investigations (survey, testing, data recovery).

PAGE 14 CONDITIONS OF CERTIFICATION CUL-5, FIRST SENTENCE.

Prior to and for the duration of ~~preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, or construction,~~ the Project

Owner shall provide Worker Environmental Awareness Program (WEAP) training to all new workers within their first week of employment.

PAGE 14 CONDITIONS OF CERTIFICATION CUL-5, LAST PARAGRAPH.

No ~~preconstruction site mobilization, construction~~ ground disturbance, ~~construction grading, boring and trenching, or construction~~ shall occur prior to implementation of the WEAP program unless specifically approved by the CPM.

PAGE 15 CONDITIONS OF CERTIFICATION CUL-5, VERIFICATION # 1. FIRST SENTENCE.

At least 30 days prior to the beginning of ~~pre construction site mobilization~~, ground disturbance, the CRS shall provide the training program draft text and graphics, and the information brochure, to the CPM for review and approval.

PAGE 18 CONDITIONS OF CERTIFICATION CUL-7, VERIFICATION # 1, FIRST SENTENCE.

At least 30 days prior to the start of ~~preconstruction site mobilization, construction~~ ground disturbance, ~~construction grading, boring and trenching, or construction~~, the Project Owner shall provide the CPM and CRS with a letter confirming that the CRS, alternate CRS, and CRMs have the authority to halt construction activities in the vicinity of a cultural resources discovery, and that the Project Owner shall ensure that the CRS notifies the CPM within 24 hours of a discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 a.m. on Friday and 8:00 a.m. on Sunday morning.

COMMENTS:

Staff provided a footnote to CUL-1 that specified the term “ground disturbance” as defined in the General Conditions for this project, includes the terms “preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, or construction.” Staff assumes that wherever else in the conditions that follow, the same definition is to be understood. To reduce redundant wording, and to ensure consistency throughout conditions, and with the General Conditions of Certification for this project, staff recommends making the suggested changes.

B. SOIL AND WATER RESOURCES

Page 12, Conditions of Certification

COUNTY GRADING AND FLOODING PERMIT REQUIREMENTS

SOIL&WATER-2: The project owner shall complete all necessary plans, reports, documents, and monitoring necessary to satisfy the Conditions of Approval related to grading and flooding outlined in Draft Public Use Permit Number 897 issued by the County of Riverside, dated August 11, 2008, and Riverside County's Ordinance 754.2. Prior to initiation of construction activities, the project owner shall submit to the County of Riverside all necessary documentation, plans, and fees **normally** required for County's determination of compliance with Conditions of Approval, with copies to the CPM. The project shall not commence construction until the county of Riverside provides its written evaluation as to whether the proposed grading and flood control construction and operation activities complies with all county requirements and the CPM provides approval for construction. The project owner shall ensure compliance with all county standards and requirements for grading, erosion control, and flooding for the life of the project and shall provide the CPM with two (2) copies of all monitoring or other reports required for compliance with the County of Riverside requirements.

Verification: The project owner shall do all of the following:

1. No later than 60 days prior to the start of grading the project owner will provide to the County of Riverside and CPM a copy of all necessary information to satisfy the Conditions of Approval for grading and flooding and for acquire— a grading permit from the County of Riverside. The submittal must be reviewed by the County of Riverside and approved by the CPM.
2. No later than 60 days prior to the start of facility construction the project owner will provide to the County of Riverside and CPM a copy of all necessary information to satisfy the Conditions of Approval for grading and flooding and for-acquire a building permit from the County of Riverside. The submittal must be reviewed by the County of Riverside and approved by the CPM.
3. No later than 30 days prior to project operation, the project owner will facilitate inspections and provide documentation to the County of Riverside and CPM demonstrating that all necessary grading and flooding improvements have been completed and are operational. The submittal must be reviewed by the County of Riverside and approved by the CPM.

EVALUATION OF IMPACTS TO PRIVATE WELLS

SOIL & WATER-6: The project owner shall take the following steps to assess potential impacts to private well owners and to mitigate any such impacts.

The project owner will determine whether there are any private wells within a 3 mile radius of the project. If there are any such wells, the project owner will conduct groundwater modeling analysis to determine what type of impacts may result at these wells based on the site-specific conditions and well construction details. The project owner shall use the URS model developed during the AFC process for this project, and shall base its conclusions on the following values: transmissivity equal to Tyley's T and anisotropy equal to 2.

If this analysis indicates that the project will create a drawdown of five feet or more at any private well at any time over the project life of 30 years, the project owner shall provide the following mitigation to the well owner:

1. Payment or reimbursement (at the affected well owner's option) for increased energy costs calculated pursuant to **SOIL&WATER-7** due to the project's impacts; and
2. Payment or reimbursement of an amount equal to the cost of lowering the well owner's pump setting necessary to accommodate the decline in water level caused by the project, unless the project owner can demonstrate to the satisfaction of the CPM that the existing pump setting is sufficiently deep that lowering is unnecessary. In the event that the pump setting cannot be lowered without deepening the well, the project owner shall pay or reimburse the private well owner an amount equal to the customary local cost of deepening the well. If the well cannot be deepened, the project owner shall pay or reimburse the private well owner an amount equal to the customary local cost of installation of a new well.

Verification: No later than thirty (30) days prior to start of project construction the project owner shall provide documentation showing the results of the mail notification and identification of any impacted well owners. If any private well owners are identified, the project owner shall submit an ~~and if so the~~ analysis showing the ~~what~~ types of impacts. This documentation should be provided to the CPM for review and approval prior to implementing appropriate measures or methods of mitigation for impacts.

No later than 60 days prior to project operation the project owner shall provide documentation showing that any mitigation for private well impacts was undertaken and satisfied based on the requirements of the CPM and the property owner.

MITIGATION OF ENERGY USE IMPACTS ON PRIVATE WELLS

SOIL&WATER-7: Where it is determined that the project owner shall reimburse a private well owner for increased energy costs identified as a result of analysis performed in Condition of Certification **SOIL&WATER-6**, the project owner shall calculate the compensation owed to any owner of an impacted well as described below.

Increased cost for energy = change in lift/total system head x total energy consumption x costs/unit of energy

Where:

change in lift (ft) = calculated change in water level in the well resulting from project

total system head (ft) = elevation head + discharge pressure head

elevation head (ft) = difference in elevation between wellhead discharge pressure gauge and water level in well during pumping.

discharge pressure head (ft) = pressure at wellhead discharge gauge (psi) X 2.31

At least 30 days prior commencement of production pumping, the project owner shall submit to the CPM for review and approval the documentation showing which well owners must be compensated for increased energy costs and that the proposed amount is sufficient compensation to comply with the provisions of this condition.

1. Any reimbursements (either lump sum or annual) to impacted well owners shall be only to those well owners whose wells were in service within six months of the Commission decision and within a 3-mile radius of the project site.
2. The project owner shall notify all owners of the impacted wells within one month of the CPM approval of the compensation analysis for increase energy costs.
3. Compensation shall be provided on either a one-time lump-sum basis, or on an annual basis, as described below.

Annual Compensation: Compensation provided on an annual basis shall be calculated prospectively for each year by estimating energy costs that will be incurred to provide the additional lift required as a result of the project. With the permission of the impacted well owner, the project owner shall provide energy meters for each well or well field affected by the project. The impacted well owner to receive compensation must provide documentation of energy consumption in the form of meter readings or other verification of fuel consumption. For each year after the first year of operation, the project owner shall include an adjustment for any deviations between projected and actual energy costs for the previous calendar year.

One-Time Lump-Sum Compensation: Compensation provided on a one-time lump-sum basis shall be based on a well-interference analysis, assuming the maximum project-pumping rate of 1,100 AFY. Compensation associated with increased pumping lift for the life of the project shall be estimated as a lump sum payment as follows:

1. The current cost of energy to the affected party considering time of use or tiers of energy cost applicable to the party's billing of electricity from the utility providing electric service, or a reasonable equivalent if the party independently generates their electricity;
2. An annual inflation factor for energy cost of 3 percent; and
3. A net present value determination assuming a term of 30 years and a discount rate of 9 percent;

Verification: The verification for compensation required for increased lift shall be as follows:

1. No later than 30 days after CPM approval of the well drawdown analysis, the project owner shall submit to the CPM for review and approval all documentation and calculations describing necessary compensation for energy costs associated with additional lift requirements.
2. The project owner shall submit to the CPM all calculations, along with any letters signed by the well owners indicating agreement with the calculations, and the name and phone numbers of those well owners that do not agree with the calculations.

Compensation payments shall be made by March 31 of each year of project operation or, if lump-sum payment is selected, payment shall be made by March 31 of the first year of operation only. Within 30 days after compensation is paid, the project owner shall submit to the CPM a compliance report describing compensation for increased energy costs necessary to comply with the provisions of this condition.



**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
CPV SENTINEL ENERGY PROJECT
BY THE CPV SENTINEL, L.L.C**

DOCKET No. 07-AFC-3

**PROOF OF SERVICE
(Revised 7/1/2010)**

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DECLARATION OF SERVICE

I, Janet Preis, declare that on October 29, 2010 I served and filed electronic copies of the **ENERGY** Commission Staff Comments On Cpv Sentinel Energy Project Presiding Members Proposed Decision. The original documents, filed with the Docket Unit, are accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:
[\[http://www.energy.ca.gov/sitingcases/sentinel/index.html\]](http://www.energy.ca.gov/sitingcases/sentinel/index.html)

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

FOR SERVICE TO ALL OTHER PARTIES:

- sent electronically to all email addresses on the Proof of Service list;
 by personal delivery;
 by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

- sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (*preferred method*);

OR

- depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION

Attn: Docket No. 07-AFC-3
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

/s/ Janet Preis
Janet Preis