

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)	Docket No. 01-AFC-24
)	
Application for Certification of the)	COMMISSION STAFF'S
Palomar Energy Project)	PMPD COMMENTS
)	
_____)	

The Energy Commission staff ("staff") offers the following comments and corrections regarding the Presiding Member's Proposed Decision for the Palomar Energy Project.

AIR QUALITY

In its Summary of the Decision (page 3 – 4) the Committee requested that staff comment on three issues related to air quality. Specifically, the comments are to address (1) the CO emission limits of AQ-32, (2) the ammonia emission limit in AQ-SC11, and (3) the offset liability of FSA Air Quality Table 16.

CO Emission Limit--Condition of Certification AQ-32 was developed by the San Diego Air Pollution Control District with involvement from Energy Commission staff, the applicant, and U.S. EPA. At the time of the Preliminary Staff Assessment in August 2002, staff was not certain that U.S. EPA would agree to this level. U.S. EPA did not comment on this topic during the proceeding for Palomar, but because of the CO nonattainment status in the South Coast air district, the U.S. EPA indicated in September 2002, for a separate case in South Coast (Inland Empire, 01-AFC-17), that 4.0 ppmvd would satisfy their requirements for Best Available Control Technology. The South Coast AQMD presently requires 3.0 ppmvd for the Inland Empire project, but that limit only applies during hours without duct burner operation. Applying a limit more-stringent than 4.0 ppmvd to Palomar would not be appropriate given the fact that San Diego attains all CO standards. Because the present limit would satisfy Laws, Ordinances, Regulations and Standards (LORS), and would not cause significant air quality impacts, staff recommends no change for Condition of Certification AQ-32.

Ammonia Emission Limit--Condition of Certification AQ-SC11 was developed by staff with agreement from the applicant during the February 7, 2003 workshop. As originally proposed by Staff in the Final Staff Assessment (January 2003), ammonia slip was limited to 5 ppmvd in all conditions. The applicant was concerned that, in order to operate within the 2 ppm NOx limit (Condition AQ-31) during transient periods (startup, shutdown, changes in load, etc.) it would be difficult to achieve 5 ppm ammonia slip

during those periods because of delays in the response of the ammonia injection control system to changes in operating conditions.

In agreeing to allow for excursions from the 5 ppm ammonia slip limit during transient periods, Staff took into consideration the following factors: 1) the Air District's FDOC set a 10 ppm ammonia slip limit; 2) there are economic incentives for the applicant to use the least amount of ammonia necessary to control NOx emissions, thereby minimizing slip; 3) flexibility in output is necessary for the power plant to respond to changes in load upon the electricity grid (load following); and 4) no evidence in the record suggests that allowing excursions under the proposed condition would result in a significant environmental impact.

Because the presently proposed limit in AQ-SC11 was negotiated with the applicant and because the limit would satisfy LORS and would not cause significant air quality impacts, staff recommends no change for AQ-SC11. Nonetheless, in response to the Committee's request for language to modify this condition in a manner to limit ammonia slip to 5 ppmvd under all conditions, staff refers the Committee to the previous version of the condition proposed by staff in the Final Staff Assessment:

AQ-SC11 The emissions of ammonia (ammonia slip) from each gas turbine exhaust stack following the SCR controls shall not exceed 5.0 parts per million by volume on a dry basis (ppmvd) corrected to 15 percent oxygen. Compliance with this limit shall be verified through an initial source test and annual source testing thereafter.

Verification: The project owner shall submit to the District and the CPM turbine initial source test data and annual source test data demonstrating compliance with this condition as part of the Quarterly Operational Report (**AQ-SC7**).

Offset Liability--Air Quality Table 16 (page 118) requires the following revisions in order to be consistent with changes made to AQ-SC5, AQ-17, and AQ-49 in FSA Addendum #3, dated May 2, 2003.

**AIR QUALITY Table 16
Palomar Energy, Offset Liability and Proposed Offset Strategy**

Pollutant	Offset Liability	Proposed Offset Strategy	Offset Ratio	SDAPCD required ERCs
NOx, tpy	124.4	NOx-Equivalent ERCs	1.2	149.3
NOx, tpy with cap	105.0 104.3	NOx-Equivalent ERCs	1.2	126.0 125.2
PM ₁₀ , tpy	107.7	Not required by SDAPCD.	---	---
CO, tpy	---	None necessary.	---	---
SOx, tpy	33.1	Not required by SDAPCD.	---	---
VOC, tpy	47.3	Not required by SDAPCD.	---	---

The PM₁₀ liability of 107.7 tpy is the total of CTG emissions at a maximum of 14.0 lb/hr or 102 tpy, plus the cooling tower at a maximum of 5.7 tpy (using staff's estimate shown in the footnote on page 109).

Additional Air Quality Comments--

1) Page 99, paragraph 4, line 3:

~~Final approval of these standards is pending before the Office of Administrative Law. These standards recently became final, effective July 5, 2003.~~

2) Page 100, paragraph 1, line 6:

The issue of concern for the SDAPCD was rather whether the PEP would cause any new exceedance of the current PM₁₀ and PM_{2.5} standards in effect at the time of their action.

3) Page 101, Table 1, footnote 5:

The new current California and standard is an annual geometric mean. The federal standards are ~~is~~ an annual arithmetic means.

4) Page 101, Table 1, footnote 6:

CARB has approved a revised annual PM10 CAAQS of 20 µg/m³ and a new annual average PM2.5 standard of 12 µg/m³, both calculated as arithmetic means. These standards ~~became will take effective July 5, 2003 upon final approval by the Office of Administrative Law. Final approval is expected in early 2003 and implementation requirements for the new standards will likely follow within a year.~~

5) Page 101, Table 1, footnote a:

Delete footnote a.

6) Page 106, paragraph 1, line 1:

The Air District's witness testified that the new proposed standards ~~are currently subject to review by the Office of Administrative Law (OAL), and will subsequently require adoption of guidance rules by CARB, and adoption of regulations by the Air District, all of which are pending. Consequently, the District cannot make a permitting decision based on the proposed new~~ recently revised state PM10 standards. We agree with the Air District. Neither the SDAPCD nor the Commission has authority to enforce standards that ~~are pending~~ require further regulatory action ~~review.~~

Explanation: The above revisions are recommended because the new state-level PM10 and PM2.5 standards recently became effective. In order to retain some context, the revisions do not entirely remove the previous standards from Air Quality Table 1. If the Committee wishes further information on the new state-level standards, the CARB website should be referenced: <http://www.arb.ca.gov/aqs/aqs.htm>.

7) Page 102, Table 2, footnote:

*The San Diego Air Basin was recently found by U.S. EPA to have attained the one-hour NAAQS for ozone (~~67 Fed.Reg. 65043~~ 68 Fed.Reg. 37976, June 26, 2003).

8) Page 104, footnote 14:

~~67 Federal Register 65043, October 23, 2002~~ 68 Federal Register 37976, June 26, 2003, effective July 28, 2003.

9) Page 122, finding 3:

The Air District is a nonattainment area for state ~~and federal~~ 1-hour ozone standards, and state PM10 standards; the Air District is in attainment for federal PM10 standards and state and federal NO₂, CO, SO₂ and lead. standards. The District was recently designated attainment for the federal 1-hour ozone standard effective July 2003. The District has not yet been classified regarding PM2.5 standards.

Explanation: The above revisions are recommended because of the recent U.S. EPA action to designate the area as attainment for the federal 1-hour ozone standard.

10) Page 117, lines 5-6:

PM10 Emissions: 14 lb/day hour (with or without duct firing)

SO2 Emissions: natural gas with 0.75 grains ~~rains~~ of sulfur per 100 cubic feet

11) Page 119, paragraph 1, line 3:

... but the magnitude of direct PM10 impacts and secondary PM10 or PM2.5 impacts from ammonia, ~~NO_x~~, and SO2 would result in significant adverse effects to ambient air quality. Staff estimates the unmitigated liability for PM10 would be 108 tpy due to potential PM10 and PM2.5 emissions and precursor emissions of SO2 and ammonia.

12) Page 119, bullet item 2, line 8:

... for programs to ~~reduce~~ fund diesel source mitigation projects in the North County area.

Explanation: The above revisions are recommended for clarifying that PM10 and PM2.5 impacts are caused by direct PM10 or PM2.5 emissions along with emissions of precursors.

13) Page 120, paragraph 1, line 9:

... no evidence that the project will result in a significant ~~to~~ cumulative impacts.

14) Pages 127, 128, 134, and 144:

*** As modified in Ex. 58, FSA Addendum #3, dated May 2, ~~2203~~2003

CULTURAL RESOURCES

15) Page 258, Bulleted list under Mitigation heading. Between last two bullets.

- Authority of Monitor to Halt Construction
- Recordation
- Significance Review
- Data Recovery and Curation, if necessary

- Cultural Resources Report and Significance Review

Explanation: Staff recommends adding three additional bullets to this summary. If construction is halted due to a discovery, the cultural material would be recorded on the appropriate Department of Parks and Recreation (DPR 523) forms. Recordation is the first step in the significance review process. Evaluation forms are added to the preliminary recordation forms as additional information about the cultural resource is acquired. If the cultural resource is recommended to be eligible for the California Register of Historic Resources (CRHR), it is considered significant.

If a cultural resource is determined to be significant, then it is necessary to mitigate impacts. Impacts would usually be mitigated by recovering data and curating what is collected.

16) Page 259, Findings and Conclusions, #1.

There are several known archaeological or historic resources within a one-mile radius of the PEP site and within 0.5-mile of the linear alignments but none ~~are considered significant under CRHR eligibility criteria.~~ of the resources will be impacted by the PEP project.

Explanation: The archaeological sites that contain rock art are almost certainly eligible for the CRHR (significant). Moreover, the applicant recommended a Quonset Hut as eligible for the CRHR, but the record did not provide enough information for staff to agree or disagree with the recommendation. Staff did determine in the impacts analysis that none of the known cultural resources would be impacted by the PEP.

Evaluation of cultural resources can be time consuming and expensive. Staff only requires evaluation of a resource if it appears that the resource will be affected by the project.

EFFICIENCY

17) Page 71, paragraph 3, line 2:

~~million~~ billion

Explanation: As stated in the AFC and the FSA, the amount of natural gas burned should say billion.

18) Page 74, paragraph 3, line 3:

~~550~~ 530

Explanation: As stated in the FSA and Gas Turbine World magazine (2002), the GE 7FA combustion turbine generator is nominally rated at 530 MW at ISO conditions.

FACILITY DESIGN

19) Page 50, footnote 5:

⁵ Conditions of Certification GEN-1 through GEN-8, CIVIL-1 through CIVIL-4, STRUC-1 through STRUC-4, MECH-1 through MECH-3 and ELEC-1.

Explanation: The purpose of all of the Facility Design conditions is to monitor the design review and inspection process, not only GEN-1 through GEN-8.

**20) Page 51, 1st paragraph, 2nd line, also
page 51, last paragraph, 2nd line,
page 53, last paragraph, 2nd line,
page 54, 1st complete paragraph, 2nd line,
page 54, 2nd complete paragraph, 7th line,
page 56, 1st paragraph, 4th line,
page 58, 2nd complete paragraph, 3rd line,
page 59, 4th complete paragraph, 5th line,
page 59, 5th complete paragraph, 3rd line,
page 59, 5th complete paragraph, 6th line,
page 59, 7th complete paragraph, 3rd line,
page 59, last complete paragraph, 3rd line,
page 59, last complete paragraph, 5th line,
page 60, last paragraph, 4th line,
page 61, 3rd numbered paragraph, 3rd line,
page 61, last paragraph, 4th line,
page 62, 2nd complete paragraph, 9th line,
page 62, 2nd complete paragraph, 12th line,
page 62, last paragraph, 2nd line,
page 63, 2nd complete paragraph, 8th line,
page 63, 4th complete paragraph, 2nd line,
page 63, 5th complete paragraph, 4th line,
page 64, 1st paragraph, 4th line,
page 64, before the last paragraph, 7th line,
page 65, 1st paragraph, 3rd line,
page 65, 1st complete paragraph, 5th line,
page 66, 1st paragraph, 2nd line,
page 66, 2nd paragraph, 4th line,
page 66, 4th paragraph, 2nd line,
page 66, 6th paragraph, 3rd line,
page 67, 1st paragraph, 9th line,
page 67, 1st paragraph, 10th line,**

page 67, before last paragraph, 2nd line,
page 68, 2nd complete paragraph, 7th line,
page 69, 1st paragraph, 9th line,
page 69, 2nd complete paragraph, 6th line, and
page 69, 2nd complete paragraph, 11th line.

Make the following change to the lines listed above:

~~1998~~2001

Explanation: As of May 01, 2003, the 2001 edition of the California Building Code is in effect.

RELIABILITY

21) Page 4, paragraph 2, line 4:

~~91.49~~ 90.87

Explanation: The availability factor was updated from the PSA to the FSA.

VISUAL RESOURCES

22) Page 305, Finding 5, Line 2:

~~impacts at any of the key observation points (KOPs).~~

Explanation: The KOPs are representative of the entire viewshed.

23) Page 305, Finding 7, Line 2:

reduce or eliminate visual impacts due to backscatter and glare from nighttime

Explanation: Lighting impacts include glare as well as backscatter.

DATED: July 24, 2003

Respectfully submitted,

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