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

March 8, 2002

Mr. Taylor O. Miller, Esq.
Palomar Energy LLC
980 Ninth Street
Sacramento, CA 95814

Dear Mr. Miller:

PALOMAR ENERGY PROJECT (01-AFC-24) DATA REQUESTS

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission (Energy Commission) staff requests that Palomar Energy LLC supply the information specified in the enclosed data requests.

The subject areas addressed in the enclosed data requests are air quality, biology, cultural resources, hazardous materials, noise, reliability, soil and water resources, traffic and transportation, transmission systems engineering, visual impacts, waste management, and worker safety. Other data requests may be submitted at a later date. The information requested is necessary to understand the project, assess whether the project will result in significant environmental effects, and to assess project alternatives and mitigation measures.

Written responses to the enclosed data requests are due to the Energy Commission by April 8, 2002, or at a later date agreed upon by the Energy Commission staff and the applicant.

If you are unable to provide the information requested in the data requests, or object to providing it, you must contact the committee assigned to the project and the project manager, within 10 days of receiving these requests, stating your reason for delay or objection.

If you have any questions regarding the enclosed data requests, please call me at (916) 651-8835.

Sincerely,

Bob Eller
Siting Project Manager

Enclosure
cc: Agency Distribution List

Technical Area: Air Quality
Author: Brewster Birdsall

BACKGROUND

Local Rule Emission Limits

The local regulatory requirements include San Diego County Air Pollution Control District (SDAPCD) Rule 69.3.1 for stationary gas turbines (AFC p. 5.2-64 and 5.2-68). This rule includes an emission limitation that is calculated depending on the thermal efficiency of the turbines. In order to demonstrate that the project will comply with these emission limitations, the applicant must complete the calculation for the proposed turbines.

DATA REQUEST

1. Please demonstrate that the project will comply with the emission limit of SDAPCD Rule 69.3.1 by calculating the limit from the thermal efficiency of the proposed turbines.

BACKGROUND

Best Available Control Technology for Combustion Turbines

The AFC specifies that the proposed best available control technology (BACT) levels for the combustion turbines will be 2.0 parts per million (ppmvd) of NOx and 4 ppmvd of CO, each on a three-hour average (AFC p. 5.2-17). The U.S. EPA has recently identified a federal Lowest Achievable Emission Rate (LAER) and BACT level for similar equipment to be 2 ppmvd for NOx on a 1-hour rolling average and 2 ppmvd CO on a 3-hour rolling average, respectively. Because this equipment is required to implement federal LAER for NOx and BACT for CO (AFC p. 5.2-61), the proposed LAER and BACT levels should match the levels specified by the U.S. EPA. (The U.S. EPA made this position on two occasions in the recent months. Attachment AQ-1 includes copies of an October 25, 2001 letter to the South Coast Air Quality Management District and a June 19, 2001 letter to the San Luis Obispo Air Pollution Control District.)

DATA REQUEST

2. Please identify proposed BACT levels for NOx and CO from the gas turbines that match the 2 ppmvd levels specified by the U.S. EPA, or provide a BACT analysis that demonstrates such limitations are not achievable.

BACKGROUND

Achievable Ammonia Emissions

The applicant proposes an ammonia slip emission limit of 10 ppm (AFC p. 5.2-15). Although ammonia is not a criteria pollutant, it is a toxic air contaminant and a precursor

to particulate matter. Guidance on BACT emission levels for Power Plant Siting published by the Air Resources Board in 1999 calls for 5 ppm at 15 percent O_2. Staff agrees with the Air Resources Board that a level of 5 ppm is achievable. Other licensing cases currently before the commission are specifying ammonia slip limits of 5 ppm. Examples of projects proposing to achieve 5 ppm are Rio Linda (01-AFC-1), Russell City (01-AFC-7), and Magnolia (01-AFC-6).

DATA REQUEST

3. Please identify why this project, as opposed to other proposed and certified projects, cannot meet an ammonia slip level of 5 ppm at 15 percent O_2. In this discussion, please identify measures, including increasing catalyst surface area and/or purchasing mitigation, that might allow the project to meet the guideline level for ammonia and identify the associated costs of such measures.

BACKGROUND

Emission Rates for Cooling Tower PM_{10}

Emissions of particulate matter (PM_{10}) as a result of cooling tower drift are shown (AFC p. 5.2-21) to be 50 percent of the total dissolved solids (TDS) emitted as drift. Staff is concerned that use of the 50 percent factor may underestimate the PM_{10} emissions from the cooling towers. As shown in the U.S. EPA guidance document for emission factors (AP-42, Section 13.4) conservative PM_{10} emission estimates may be obtained by assuming 100 percent of the emitted solids are PM_{10}. Because staff questions the ability of airborne water vapor to carry particles larger than 10 microns any substantial distance, 100 percent of the TDS should be assumed to be PM_{10}. Although preliminary review indicates that the cooling tower would be exempt from SDAPCD permitting requirements (SDAPCD Rule 11), staff needs assurance that the PM_{10} emission rates in the impact analysis are not underestimated.

DATA REQUEST

4. Please demonstrate that cooling tower PM_{10} emissions are conservatively estimated by providing a discussion and references to documentation supporting the assumption that 50 percent of the TDS are PM_{10}. Please also provide information demonstrating that the SDAPCD and U.S. EPA have verified this assumption. If this information cannot be provided, please reassess impacts assuming 100 percent of the TDS are PM_{10}.

BACKGROUND

Emission Rates during Commissioning and Startup

Commissioning of the combustion turbines and other equipment is described (AFC pp. 5.2-18 to 19 and pp. 5.2-28 to 29), however the basis for emission estimates during commissioning activities needs to be provided. Commissioning activities require turbine

operation at all loads (0 to 100 percent), including operation without post-combustion emission controls installed or operational, while the worst-impact scenario is assumed to occur with stack conditions representative of 50 percent load (AFC p. 5.2-28). Use of these modeling conditions should be supported with data indicating the most severe conditions have indeed been identified. Similarly, the anticipated emissions during startups (AFC p. 5.2-20 and pp. 5.2-29 to 30) are provided without basis. Startup emissions of nitrogen oxides and carbon monoxide (CO) proposed in the AFC are much lower than the startup emissions proposed in similar cases presently before the commission. The assumptions and safety margins used to derive these emission estimates are not clearly explained. Staff must be assured that the emission rates assumed in the AFC conservatively account for emissions that would occur during commissioning or startup of the actual equipment installed.

DATA REQUEST

5. Please describe how the emission levels for commissioning (AFC p. 5.2-19) adequately characterize the anticipated emissions. The discussion should explain what data was used to develop the proposed emission rates.

6. Please summarize the range of stack conditions that may occur during commissioning operations so that the commissioning activities that cause the most severe impacts can be identified.

7. Please describe how the emission levels for startups (AFC p. 5.2-20) adequately characterize the anticipated emissions. The discussion should explain what data was used to develop the proposed emission rates and address whether vendor-specified or site-specific factors were considered in the estimates.

BACKGROUND

Construction Schedule

An explanation of the diurnal schedule assumed in the dispersion modeling analyses for construction impacts needs to be provided because the AFC proposes to allow construction on an 11-hour day basis (based on noise limitations in AFC p. 5.9-6 and 5.9-13) while the construction emission estimates and air quality modeling are based on an 8-hour day (modeling files submitted on CD-R). Because the dispersion modeling files submitted only account for impacts from construction activities between 8 a.m. and 4 p.m., staff may propose this construction schedule as a condition of certification if it would be necessary to eliminate significant impacts to ambient air quality.

DATA REQUEST

8. Please discuss the effect that conducting construction activities 11 hours per day would have on the estimated air quality impacts. If necessary revise the construction emission estimates and ambient air quality modeling analysis to reflect the longer daily schedule of activity.

BACKGROUND

Meteorological Data used in Modeling

Staff is concerned that the substantial number (e.g., greater than 10 percent for 1998 Aermod data) of missing hours in the meteorological data may adversely affect the dispersion modeling results (see ISC and Aermod models submitted electronically on CD-R). This concern is similar to that raised by the SDCAPCD in their letter regarding application status (dated December 21, 2001, Docket 01-AFC-24).

DATA REQUEST

9. Please provide additional quality assurance information for the ISC and Aermod meteorological data sets including the procedures used to fill missing data hours and a list of missing final data sets after data processing. Note the information provided to the SDAPCD in response to the December 21, 2001 letter may be used to satisfy this request.

BACKGROUND

Modeling Methodology for Construction NOx

Staff has questions regarding the post-processing methods used to estimate nitrogen dioxide (NO_2) impacts (AFC Appendix E.4, p 3-27). To estimate annual impacts of NO_2 from nitrogen oxides (NOx) emitted during construction (AFC Table 5.2-12), no provision seems to have been made for the annual background conditions. The approach estimates the annual average impacts from the hourly results obtained with the ozone limiting method (OLM) and does not accommodate known annual-average ambient background conditions of NO_2 (AFC Table 5.2-2). This approach does not conform to the methods recommended in the U.S. EPA Guideline on Air Quality Models (Appendix W to 40 CFR Part 51). According to the U.S. EPA guideline, an ambient ratio method (ARM) would be appropriate for determining annual NO_2 impacts. While staff does not contest use of the OLM in this situation, the applicant should explain how the annual-average background concentrations of NO_2 are included with the total concentrations.

DATA REQUEST

10. Please provide further explanation of the method used to estimate construction-plus-background annual NO_2 impacts and a discussion that explains how the proposed method includes the annual NO_2 background. If the proposed method does not include the background, then the applicant should revise the modeling analysis using a method for annual NO_2 that conforms with U.S. EPA guidelines.

BACKGROUND

Modeling Methodology for Annual NO_2

The maximum modeled impacts during plant operation show annual NO_2 concentrations from the project of 0.7 micrograms-per-cubic-meter (AFC Table 5.2-13, p. 5.2-26). Preliminary review of the dispersion modeling files supporting this analysis indicates that emission rates during routine hourly operation were assumed to occur throughout the year (File "wh00NO2.oua" submitted electronically on CD-R). Staff is concerned that no startups were included in this assessment of annual NO_2 impacts. Because emissions of NOx from the turbines would be substantially higher during startups (AFC Tables 5.2-8 and 5.2-9), these periods should somehow be considered in the assessment of annual NO_2 impacts.

DATA REQUEST

11. Please provide information confirming that periods of turbine startups have been included in the dispersion modeling analysis for annual NO_2 impacts (AFC Table 5.2-13). If the present analysis does not include periods of startups, then the applicant must revise the modeling analysis to account for those periods of increased emissions.

BACKGROUND

Modeling Methodology for Terrain

The modeling protocol in Appendix E.4 describes the approach used to adjust source heights in the dispersion model to account for their location in the depression of the site (AFC Appendix E.4 p. 3-17). The unique location of the Palomar Power Plant in a depression deserves special treatment and, based on preliminary review by staff, the method proposed seems to be appropriate for the case. For construction, however, no elevations for either sources or receptors were found to be included with the construction modeling files (e.g., see file "ca_pm00.prt" on submitted CD-R). As such, staff has questions on why flat terrain is assumed in the analysis of construction impacts and whether the San Diego County Air Pollution Control District has approved of the methods proposed for handling terrain. . Note that it is staff's opinion that the terrain should be included in the analysis of construction impacts, and the construction modeling analysis should be revised to account for the terrain.

DATA REQUEST

12. Please discuss why the terrain surrounding the site was not included in the construction modeling analysis submitted with the AFC, or provide the construction modeling analysis incorporating the terrain into the analysis.

13. Please verify that the SDAPCD has reviewed and approved the modeling protocol, including the proposed method of treating the depression of the site.

BACKGROUND

Mitigation of PM_{10} Impacts

Because existing ambient conditions currently exceed the state ambient air quality standards for particulate matter under 10 microns (PM_{10}), project impacts will contribute to existing violations of the 24-hour state-level PM_{10} standard (AFC, Table 5.2-14). Project PM_{10} impacts would occur as a result of new emissions of primary PM_{10} (PM_{10} emitted directly) and new emissions of pollutants that are precursors to formation of secondary PM_{10} (PM_{10} formed after undergoing atmospheric reactions). Because of the existing violations, additional measures would be appropriate to reduce or avoid potentially significant project impacts. In the applicant's Response to Data Adequacy (February 5, 2002), an example of mitigation in the form of mitigation fees made payable to the San Diego County Air Pollution Control District was identified as a possible strategy to reduce PM_{10} impacts. Staff needs further information to evaluate this strategy. The effectiveness of this strategy would depend on when and how the mitigation fees are utilized by the SDAPCD and whether the mitigation would affect the seasons when and locations where project impacts occur. Without further analysis, staff is concerned that the proposed mitigation may not be adequate or appropriate for reducing project impacts.

DATA REQUEST

14. Please outline a strategy to mitigate project impacts to local PM_{10} concentrations. For the proposed strategy (e.g., payment into a mitigation fee program), please quantify the PM_{10} reductions that could be provided by the mitigation. This strategy should address whether reductions in PM_{10} concentrations would be achieved locally (in the vicinity of the project), whether reductions would be achieved on a year-round basis, and whether the reductions would occur concurrently with startup and operation of the power plant.

BACKGROUND

Mitigation of Ozone and Secondary PM_{10} Impacts

Because nitrogen oxides (NOx), volatile organic compounds (VOC), and sulfur oxides (SOx) are each precursors to either ozone or PM_{10} and because the project affects areas that are designated nonattainment for ozone and state-level nonattainment for PM_{10}, staff proposes that the applicant offer offsets or other measures as means of mitigating the project's potential ozone and secondary PM_{10} impacts from each of these pollutants. Staff believes that as an appropriate strategy, project NOx, VOC, and SOx emissions could each be offset at a ratio of 1-to-1 to mitigate ozone or secondary PM_{10} impacts. In this approach, sufficient VOC credits should be provided to offset VOC emissions before implementing the interpollutant trading plan for NOx emissions (AFC p. 5.2-43).

DATA REQUEST

15. Please discuss the project's contribution to the formation of ozone or secondary PM_{10} as a result of NOx, VOC, and SOx emissions and identify a strategy to mitigate ozone and secondary PM_{10} impacts from these precursors.

BACKGROUND

Emission Offset Requirements

A preliminary plan for meeting the SDAPCD emission offset requirements was originally submitted under confidential cover December 4, 2001. Staff recognizes that the task of obtaining offsets is continuing and procurement of credits will evolve. In the Staff Assessment, staff must certify that the offsets appropriately mitigate project impacts. In order for staff to complete this analysis, updates to the offset package must be filed in a timely manner.

DATA REQUEST

16. Please continue to submit to staff timely updates of the offset document reflecting current status of the credits. The details of the offset package may remain confidential, given the status of purchase and option negotiations. The offset strategy will then be summarized and evaluated in the Preliminary Staff Assessment.

BACKGROUND

Cumulative Analysis

A preliminary review of the dispersion modeling files submitted (electronically on CD-R) indicates that data on Calpeak and RAMCO facilities was incorporated as provided by the San Diego County Air Pollution Control District in April 2001. For each of these facilities, one emission point was added to the dispersion modeling files. Staff needs to verify that all new and potential emitting sources from the neighboring facilities have been incorporated with the Palomar model and that the Palomar model includes is the most recent information available from the SDAPCD and the City of Escondido (for possible future uses within the Escondido Research and Technology industrial park). Additionally, the applicant should confirm that no fire-water pump or auxiliary boiler is included with the Palomar Energy Project.

DATA REQUEST

17. Please verify that only one emission source would exist at the Calpeak and RAMCO facilities each or identify how one emission point accounts for all of the proposed sources at each facility. Please update the cumulative analysis as necessary to reflect any additional sources.

18. Please verify that no additional information from the SDAPCD or the City of Escondido exists regarding other potential future neighboring sources. Shortly before the Preliminary Staff Assessment is released, staff will need the list of future neighboring sources to be updated, as necessary to reflect any additional sources.

19. Please verify that no diesel-powered generators or fire-water pump engine would be included with the Palomar Energy Project and that no auxiliary boiler would be included.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

June 19, 2001

Mr. David W. Dixon
Engineering Division Supervisor
San Luis Obispo Air Pollution Control District
3433 Roberto Court
San Luis Obispo, CA 93401

Re: Preliminary Determination of Compliance for Duke Energy Morro Bay LLC
CEC Docket Number 00-AFC-12

Dear Mr. Dixon:

I am writing to you concerning the Preliminary Determination of Compliance ("PDOC") for the proposed Duke Energy Morro Bay LLC project. We appreciate the opportunity to comment on the PDOC for this project. We have two comments concerning Best Available Control Technology ("BACT"):

1. **BACT for NO_x Emissions**

Although we have not seen the San Luis Obispo Air Pollution Control District ("District") top-down BACT analysis for this project, we believe the BACT limit for NO_x should be set at 2.0 ppmvd on a 1-hour rolling average. The San Joaquin Valley Unified Air Pollution Control District recently determined NO_x BACT to be 2 ppmvd @ 15% O_2 averaged over 1-hour for a similar project, the Midway Sunset Cogeneration Company 500 MW natural gas-fired combined-cycle power plant project near Fellows, California (December 14, 2000, Notice of Final Determination of Compliance, CEC Docket No. 99-AFC-9). We also expect that 5 ppmvd ammonia slip can be achieved at the 2.0 ppmvd NO_x level.

2. **BACT for CO Emissions**

EPA believes that presumptive BACT for CO for this project, unless the data from the BACT analysis show otherwise, to be 2.0 ppmvd on a 3-hour rolling average, not the 6.0 ppmvd 3-hour rolling average that is specified in the PDOC.

We ask that the District address our comments before issuing a final Determination of Compliance. We look forward to working with you on these comments. If you have any questions, please contact me at (415) 744-1259 or have your staff contact Mark Sims at (415) 744-1229.

Sincerely,

for Gerardo Rios
Acting Chief
Air Permits Office

cc: Mr. Wayne Hoffman (Duke Energy)
Ms. Nancy Matthews (Sierra Research)
Mr. Gary Willey (SLOAPCD)
Mr. Mike Tollstrup (CARB)
Mr. Magdy Badr (CEC)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

NOV

October 25, 2001

Mohsen Nazemi, P.E.
Assistant Deputy Executive Officer
Engineering and Compliance
South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, CA 91765-4182

Re: LAER for NOx and CO for Proposed Cogeneration at Miller Brewing Company

Dear: Mr. Nazemi:

Thank you for the opportunity to review the above proposed permit. I am writing to comment on the BACT (federal LAER) determinations for NOx and CO. We understand that your staff is relying on the California Air Resources Board Guidance on establishing BACT levels in these determinations. In general, we do not disagree with using the guidance. However, we would like to inform you that other lower levels of BACT have been established nationally or in Region 9. Therefore, we are writing to request that you ask your staff to consider the following data in requesting BACT analysis in future applications.

The present LAER (BACT under your rule) for both NOx and CO are 2 ppm. These levels have been used in recent permits issued to power plants proposed in the State of Massachusetts. We also have a Region 9 permit issued at 2 ppm NOx (Western Midway Sunset in San Joaquin Valley, a 500 MW gas-burning combined-cycle power plant with SCR for NOx control). A recent application for a similar combined-cycle power plant (580 MW Sunrise in San Joaquin Valley) is also proposing 2 ppm NOx. Therefore, we believe that LAER for NOx is 2 ppm. Moreover, since this level of NOx emission has been consistently achieved in a Region 9 facility (UC San Diego), we believe applicants must start their BACT analysis (federal LAER) with 2 ppm NOx level.

As far as CO level is concerned, we have already issued several permits at 4 ppm (Elk Hills and Midway Sunset in San Joaquin both to use oxidation catalyst to control CO emissions). However, since Massachusetts has determined that 2 ppm is LAER, we believe that analysis must start with this level.

Based on the above information, we think that for the proposed cogeneration units at Miller Brewing Company, the NOx level of 2.5 ppm and CO level of 6 ppm (originally proposed at 10 ppm) can be lowered to lower levels with the proposed controls of SCR and oxidation catalyst.

We appreciate the opportunity to review the district's proposed permits. We will continue to work together toward achieving improved air quality. Please call me at (415) 744- 1259, or have your staff contact my staff Nahid Zoueshtiagh at (415) 744-1261.

Sincerely,

Gerardo C. Rios
Chief, Permits Office

cc: Pang Mueller
John Yee
David Schwien
Becky Francisco, Miller Brewing Company

Technical Area: Biological Resources
Author(s): Bruce Barnett / Rick York

Section 5.3 (page 5.3-1) of the Application for Certification states that "*The Palomar Energy Project will be developed in Planning Area 1 of the planned ERTC industrial park. Prior grading of the overall industrial park site (Planning Areas 1-8) will have fully disturbed the biological resources of Planning Area 1 before Palomar construction begins… Thus Palomar project development will have virtually no biological impacts, because the facility will be constructed in areas that already will have been thoroughly modified from current conditions before power plant construction begins. The ERTC industrial park is the subject of a separate California Environmental Quality Act (CEQA) review being performed under the auspices of the City of Escondido. This CEQA review will include biological resources issues.*"

Because of the parallel timing of the power plant and the ERTC industrial park CEQA review, CEC has not had an opportunity to evaluate the biological impacts of the industrial park as it may relate to the power plant. Consequently, the CEC (and the USFWS) would appreciate some additional information (or clarification of information previously submitted as part of the Application For Certification) to allow a more informed assessment of pre- vs. post-project biological conditions at the power plant site.

BACKGROUND

Figures 5.3-4 and 5.6-1 identify a portion of the grasslands in the northern portion of the proposed power plant site as agricultural land (i.e. Unique Farmland). Section 5.6.1.1 (page 5.6-2) states that "*Although there are no current agricultural uses at the plant site or along the proposed water pipeline and gas pipeline routes, there were avocado and citrus orchards in the past on approximately six acres of the northern portion of the plant site, and a few untended avocado trees remain.*" While "*The 1998 Important Farmland Map of San Diego County identifies the area where the orchards were located as Unique Farmland (Figure 5.6-1)*", the USFWS (Sandy Marquez personal communication, 1/8/02) believes the area should be classified as grassland habitat. They consider it grassland habitat because: (1) there are a number of trees and stumps that are currently used by various raptors, and (2) the area apparently serves as foraging habitat for these species. Specifically, the USFWS believes this area should be re-classified as an appropriate combination of Disturbed/Ruderal Lands and California Annual Grassland Series.

DATA REQUEST

20. Please provide a revised Figure 5.3-4 (Vegetation and Sensitive Resources of Power Plant Site and Immediate Vicinity) that reflects the change in classification of these approximately six acres of the northern portion of the plant site from agricultural land to the appropriate combination of Disturbed/Ruderal Lands and California Annual Grassland Series.

BACKGROUND

Section 5.4.1.3 (page 5.4-5) of the Application for Certification states that "*Figure 5.4-2 identifies a number of areas on the ERTC industrial park site as non-jurisdictional waters of the Unites States, including one such area within the Palomar site.*" This section, however, also states that "*These ephemeral channels (do) constitute federal and State of California jurisdictional waters under §§ 401 and 404 of the Clean Water Act and/or § 1603 of the California Fish and Game Code.*" These two statements appear contradictory. In addition, the Application For Certification roughly estimates "*The total area of these jurisdictional waters … to be less than one acre throughout the entire ERTC industrial park site, and a small fraction of one acre within the Palomar site.*"

The CEC and USFWS are unclear as to the applicant's understanding of the actual jurisdictional nature of these wetlands and their exact acreages within the entire ERTC industrial park site and Palomar site.

DATA REQUESTS

21. Please reconcile the contradictory statements presented in Section 5.4.1.3 of the AFC regarding the jurisdictional nature of wetlands within the entire ERTC industrial park site and Palomar site.

22. Please provide a formal wetlands delineation report (and map), describing the extent, distribution and nature of these wetlands, including appropriate information on soils, vegetation and hydrology.

BACKGROUND

Section 5.3.3 (page 5.3-18) of the Application For Certification states that "*Mitigation of the impacts of the overall ERTC industrial park site, including Planning Area 1 (the Palomar site), will be addressed in the CEQA and permitting processes conducted by the City of Escondido for the ERTC project. Habitat replacement approaches to compensate for lost habitat are expected to be a major element of such a mitigation program.*"

In response to CEC Staff Data Adequacy Comments, the applicant indicates that "*A part of that (ERTC industrial park CEQA/permitting) process is the development and implementation of a Mitigation Monitoring Plan. It is expected that monitoring of the implementation of biological resources mitigation measures, evaluation of their success, and revision of specific measures, if needed, will be carried out by the City pursuant to the mitigation monitoring required for the ERTC under CEQA.*"
Because of the parallel timing of the Palomar CEQA/permitting process and that of the ERTC industrial park, the CEC (and USFWS) are unable to review the Mitigation and Monitoring program for the latter in order to assess the adequacy of mitigation and monitoring approaches for the power plant site. Though the applicant assures that mitigation for the power plant site will be covered under the ERTC industrial park

CEQA/permitting process and suggests various activities that could be included in a Mitigation Monitoring Plan for the site, it is difficult for the CEC and resource agencies to assess with any confidence the adequacy of such a mitigation and monitoring approach for the power plant project. Therefore, some additional details of such a Mitigation and Monitoring Plan are needed.

DATA REQUEST

23. Please provide a draft Mitigation and Monitoring Plan, which clearly describes and explains:

    a. Measures proposed to avoid, reduce or compensate for direct and/or indirect impacts to biological resources on the Palomar power plant site (Planning Area 1); and

    b. Specific monitoring activities and responsibilities to document compliance with proposed mitigation measures.

BACKGROUND

A discussion of mitigation for impacts to special status species on the Palomar site should take into account any and all local and/or regional planning efforts relevant to these species.

Section 5.3.1.5 (page 5.3-13) of the Application for Certification states that "*The spring 2001 survey found seven juvenile Western Spadefoot Toads … around the temporary pool in the northern portion of the power plant site.*" On page 5.3-14, the Application For Certification states that "*Two pairs of the California Gnatcatcher were observed in or near the Palomar site…*" and that these pairs established nesting territories on the site. Section 5.3.3 (page 5.3-18) of the Application For Certification states that "*Mitigation of the impacts of the overall ERTC industrial park site, including Planning Area 1 (the Palomar site), will be addressed in the CEQA and permitting processes conducted by the City of Escondido for the ERTC project.*"

The CEC and USFWS have not had the opportunity to review proposed mitigation for impacts of the ERTC industrial park on these species, yet Table 1-1 of the Draft Escondido Sub-area Plan Implementing the Multiple Habitat Conservation Program (City Case File 95-25-GPIP) indicates that the western spadefoot toad and California gnatcatcher are to be covered under this plan.

It is not clear to the CEC and USFWS how habitat replacement approaches to compensate for lost habitat for these species on the power plant site will be coordinated between the ERTC CEQA review and the Escondido Sub-area Plan. Also, depending on the anticipated timing of adoption and implementation of the Sub-area Plan, its actual availability as a vehicle for mitigation at the time of ERTC industrial park and power plant construction could be questionable. Consequently, the City of Escondido may propose mitigation for impacts of the ERTC industrial park on special status

species by some other means. Some consultation with the City may be required by the applicant to discuss other such possible options.

DATA REQUESTS

24. Please provide a discussion as to how mitigation for special status wildlife species (e.g. western spadefoot toad and California gnatcatcher) on the ERTC industrial park site (and Planning Area 1 – Palomar site) will be coordinated with the Escondido Sub-area Plan Implementing the Multiple Habitat Conservation Program. This discussion should provide adequate information to clearly indicate how mitigation for impacts to the western spadefoot toads and California gnatcatchers presently occurring on the Palomar site will be accounted for in overall mitigation for the ERTC industrial park and in relation to goals and objectives of the Escondido Sub-area Plan.

Technical Area: Cultural Resources
Author: Richard Shepard

BACKGROUND

According to the AFC (page 2-51), portions of existing San Diego Gas and Electric (SDG&E) overhead transmission lines are present adjacent to the project site, and the Hale Avenue Resource Recovery Facility (HARRF) is present near the reclaimed water supply/brine return pipeline route. Additionally, the technical report (page 21) notes the presence of a radio tower and residences near the project site, as well as seven previously-recorded historic structural (built) resources within one mile of the Escondido Research and Technology Center (ERTC) property. *Instructions for Recording Historical Resources* Manual (Office of Historic Preservation 1995) requires evaluations of buildings and structures within a relevant historic context. This context is considered an "organizational format which groups information about related historical resources based on theme, geographic limits, and chronological period" (State Office of Historic Preservation 1995:11). Staff needs additional information to complete the analysis. Staff is available to discuss with the historian whether it is appropriate to record or evaluate particular resources, if the historian has questions.

DATA REQUEST

25. Please provide the results of a built environment survey of the project area (within one mile of the project site) and linears (minimum of 100 feet on each side of centerlines) conducted by an architectural historian or an historian with a background in industrial or architectural or public history. Characterize the area, identify and include descriptions of historic cultural resources (buildings, structures, objects, sites, and districts). The survey may be limited to cultural resources that appear to be 45 or more years old or exceptional, unless there is an obvious potential historic resource, not within the specified limit that may be impacted. Ensure the existing transmission lines noted above and Hale Avenue Resource and Recovery Facility (HARRF) are included. Please identify all structures and facilities more than 45 years old (or otherwise exceptional) adjacent to the project footprint.

26. In accordance with *Instructions for Recording Historical Resources Manual* (State Office of Historic Preservation 1995), please provide appropriate Department of Parks and Recreation (DPR) 523 forms for each isolated find or closely spaced group of isolated finds (minimally Primary Record form DPR 523A). Please record any structures or facilities that appear to be more than 45 years old on DPR 523 forms, or update existing records of previously-recorded resources as appropriate. If any of the resources may be impacted by the project or could have the integrity of their setting altered by this project in such a manner that the significance of the historical resource would be materially impaired, please provide a discussion of the significance of the resource under CEQA Section 15064.5, (a), (3), (A)(B)(C) & (D). All records should be completed by an

architectural historian or historian with a background in industrial, architectural, or public history meeting the Secretary of the Interior's standards for the field. According to the *Instructions for Recording Historical Resources* Manual (State Office of Historic Preservation 1995:9) "While anyone can prepare the documentation supporting an evaluation, responsibility for the evaluation must be taken by persons meeting the Secretary of Interior's Professional Qualifications Standards [National Park Service 1983] in a discipline appropriate to the historic context within which the resources is being considered." Copies of the DPR 523 records and the specialist's conclusions regarding significance should be provided to CEC staff as part of the data response.

BACKGROUND

According to the AFC (page 2-51), the power plant switchyard will be connected to the overall SDG&E transmission system through a loop-in of the existing 230 kV Escondido-Sycamore Canyon overhead transmission line adjacent to the project site. The AFC (page 2-51) also states that seven existing lattice towers will be removed from the 230 kV and 138 kV lines currently adjacent to the project site, and the existing 69 kV line near the project site will be rebuilt. Additional information is needed for staff to complete the analysis.

DATA REQUEST

27. If the existing 230 kV, 138 kV transmission lines along the western boundary of the project site or 69 kV transmission line running through the planned industrial park are 45 years old or more and if any of the transmission lines may be impacted by the project or could have the integrity of their setting altered by this project in such a manner that the significance of the historical resource would be materially impaired, evaluate them for eligibility for the CRHR under CEQA Section 15064.5, (a), (3), (A)(B)(C) & (D). In addition, please establish a period of significance for the overall historic system(s) of which they are a part. Identify the period of construction for the portions of transmission lines within one mile of the project footprint and 100 feet of all linears. The above analysis should be completed by an architectural historian or historian with a background in industrial, architectural, or public history meeting the Secretary of the Interior's Standards for the field.

28. If the existing portions of the 230 kV, 138 kV, or 69 kV transmission lines are recommended eligible for either the CRHR or NRHP,

    a. Please describe the character-defining attributes of the historic transmission line system(s) and how these attributes might be evident in the portion within one mile of the project footprint and 100 feet of the project linears, as a contributing element of the overall system.

    b. Please discuss how these character-defining attributes, will be altered. The above analysis should be completed by an architectural historian or

historian with a background in industrial, architectural, or public history meeting the Secretary of the Interior's standards for the field.

BACKGROUND

According to the technical report (pages 21-22), 42 archaeological sites have been previously recorded within one mile of the ERTC property, but no indication of their actual proximity to the project is made. In addition the technical report (pages 24-29) indicate that five previously unrecorded archaeological sites and two previously unrecorded isolates were identified during ERTC project surveys. Additional information is needed for staff to complete the analysis.

DATA REQUEST

29. Please provide the distance of the 42 previously recorded archaeological sites from the project foot print and all linear routes, access roads, parking and laydown areas.

30. Please provide information that identifies the location of the seven previously unrecorded resources in relation to the project footprint, all linear routes, access roads, parking and laydown areas.

31. Please provide a map (in a scale 1:24,000 USGS) that identifies the location of the project and proposed linears. Indicate the location of all previously recorded and newly identified archaeological sites and isolates. In addition also add the locations of previously recorded and newly identified historic resources.

32. Provide copies of all DPR 523 records for the newly recorded resources.

BACKGROUND

According to the technical report (pages 21. 23), 34 previous cultural resources investigations have been conducted within one mile of the ERTC property, but their coverage with regard to the project is not clear. Additional information is needed for staff to complete the analysis.

DATA REQUEST

33. Please provide a discussion regarding whether any of the 34 previous cultural resources investigations, within one mile of the ERTC property, identified cultural resources that may be impacted by the project or project linears (including utility and transportation routes and equipment staging areas). If any of the 34 investigations concerned these aspects of the current project area, the nature and findings of the study should be discussed.

BACKGROUND

Cultural resources that are on lists created by local jurisdictions that could qualify as historical resources and could be impacted by the project need to be considered in the overall analysis. Additional information is needed for staff to complete the analysis.

DATA REQUEST

34. Please provide copies of local lists of important cultural or historic resources designated by City of Escondido or San Diego County ordinance.

35. Please identify the location of any cultural resources listed by the city or county in relation to the project footprint, project linears, access roads and laydown areas.

36. Please provide a copy of the requirements used by the local jurisdictions that qualify features of the built environment for local listing.

37. If any of the resources could be impacted by the project or could have their immediate surroundings altered (change in the integrity of setting) by this project in such a manner that the significance of the historical resource would be materially impaired, please provide a discussion of the significance of the resources under CEQA Section 15064.5, (a), (3), (A)(B)(C) & (D), and provide staff with a copy of the assessment and the specialist's conclusions regarding significance.

BACKGROUND

In some cases, local historical and archaeological societies have knowledge of cultural resources in an area of a project that that may not be available through normal record sources. Additional information is needed for staff to complete the analysis.

DATA REQUEST

38. Please inquire with local historical and archaeological societies that might have knowledge of cultural resources in the area of the project. Please provide copies of inquiry and response letters or summaries of any verbal responses.

BACKGROUND

According to the technical report (page 1), Native Americans who might have interest in or knowledge of cultural resources in the vicinity of the project were contacted in solicitation of their comments on the project. Responses were received from four Native American representatives. However, no documentation of the original contact letters sent or the responses received was included in the technical report or AFC. Additional information is needed for staff to complete the analysis.

DATA REQUEST

39. Please provide copies of the letters of contact originally sent to Native American representatives and their responses, including telephone conversation records if only verbal responses were received. Please provide copies of any maps or other attachments that were included with the letters.

Technical Area: Hazardous Materials Management
Author: Alvin Greenberg, Ph.D.
Technical Senior: Rick Tyler

BACKGROUND

The precise identity of the hazardous materials used on site is necessary for staff to assess potential risk.

DATA REQUEST

40. Please provide the chemical name, CAS number and MSDS for the oxygen scavenger solution listed in table 2.4-5 of the AFC.

Technical Area: Noise
Author: Jim Buntin

BACKGROUND

The Energy Commission typically assesses the potential for environmental impact by comparison of the steady state noise level due to the power plant to the average (or typical) L_{90} values obtained during nighttime hours, as noted by the applicant. The City of Escondido applies an absolute noise level criterion in terms of the average (L_{eq}) project noise level, and the ambient noise level may be considered as a factor in adjusting the noise standard. The applicant has summarized the 24-hour cumulative noise level values collected in the long-term noise measurement periods in Table 5.9-1, and in the text of the AFC. However, the hourly noise level values were not provided.

DATA REQUEST

41. Please provide the hourly L_{eq}, L_{50}, and L_{90} values for noise measurement sites 1 through 4 in tabular format.

BACKGROUND

Pile driving is sometimes used for power plant construction. Noise and vibration from pile driving can be significant at adjacent sensitive receptors. The listing of construction noise sources contains no reference to such equipment use.

DATA REQUEST

42. If pile driving is not proposed, please so state. If pile driving is planned, please provide a discussion of the potential noise and vibration effects associated with pile driving for the proposed project at the nearest sensitive receptors. Include estimates of pile driving noise and vibration levels, their effects, and any proposed mitigation measures.

BACKGROUND

The AFC indicates that two small (<50 MW) peaking power plants (RAMCO and CalPeak) are under construction near the Escondido Research and Technology Center industrial park. The AFC further states that the cumulative noise exposure resulting from the operation of the peakers and the project will be “undetectable.” However, no quantitative data are provided to describe the cumulative noise exposures at the nearest sensitive receptors.

DATA REQUEST

43. Please quantify the predicted noise levels due to operation of the RAMCO and CalPeak peaker units, at the nearest sensitive receptors.

Technical Area: Reliability
Authors: Kevin Robinson, Steve Baker

BACKGROUND

The applicant states in the AFC that there will be two 100 percent capacity condensate pumps with one spare pump stored on-site. Three 50 percent pumps will be considered by the applicant during detailed engineering and procurement (PEP 2001a, AFC Table 4.3-1).

DATA REQUEST

44. Please clarify if there will be two 100 percent capacity condensate pumps installed and one additional 100 percent capacity condensate pump stored on site, or if there will be one 100 percent condensate pump installed and one 100 percent capacity condensate pump stored on site.

45. For the alternate option, please clarify how many of the three 50 percent capacity condensate pumps will be installed or stored.

Technical Area: Soil and Water Resources
Author: Richard Latteri

BACKGROUND

The Palomar Energy Project (PEP) proposes to use 3.5 million gallons of reclaimed water per day from the Hale Avenue Resource Recovery Facility (HARRF). According to the AFC, (Section 5.4, Page 5.4-8) "Currently, the HARRF provides secondary treatment of 17.5 million gallons per day of wastewater from the City of Escondido and from the Rancho Bernardo area. The ongoing Escondido Regional Recycled Water Project (ERRWP) involves upgrading existing HARRF treatment facilities to produce tertiary treated recycled water …" With completion of the ERRWP in 2002 with an expected capacity of 18 million gallons of reclaimed water per day, the HARRF will have the capacity to provide the PEP with source water.

DATA REQUEST

46. Please provide a schedule showing (1) the planned operation date of the ERRWP and its initial capacity of tertiary treated water; (2) dates of future expansion and volume of increased capacity; and (3) the expected "build-out" date and the final plant capacity.

47. Please provide a summary of other existing and currently planned customers of reclaimed water from the HARRF, quantifying average and peak (if available) reclaimed water demands.

BACKGROUND

The "will serve letter" from Rincon Del Diablo Municipal Water District (Appendix G of the AFC) states in Condition 3 "There will not be a back-up supply available in the event of catastrophic plant or system failure." Section 2.4.6.2, (pg. 2-30) of the AFC states that the quantity of reclaimed water stored in the proposed raw water storage tank is sufficient to cover a 4-hour interruption of supply. A system failure at the HARRF could be significantly longer than 4 hours.

48. Does the PEP propose to shut down in the event of a HARRF outage longer than 4 hours or will there be a back-up water supply. Please provide a discussion or contingency plan to deal with a disruption of reclaimed water supply of over 4 hours.

BACKGROUND

Because the PEP will involve earthmoving greater than 5 acres, a National Pollution Discharge Elimination System (NPDES) permit for Stormwater Runoff from Construction

Activities is required. To evaluate the potential impacts from stormwater runoff, it is necessary to identify run on/runoff quantities and quality for the PEP site and areas associated with the project (laydown/staging areas, parking area, and linear facilities). In order to evaluate the impacts related to stormwater and erosion/sedimentation, Staff has requested a draft Storm Water Pollution Prevention Plan (SWPPP) for previous power plant projects. Stormwater and erosion/sediment control plans are components of the SWPPP. These plans are crucial to evaluate impacts related to PEP stormwater quantity and quality.

DATA REQUEST

49. Provide the pre- and post-discharge for the 100-year frequency and 24-hour duration runoff event.

50. Provide supporting data regarding the routing of off- and on-site runoff during these runoff events.

51. Provide a draft stormwater and an erosion/sediment control plan for the facility and associated linear facilities that includes the following:

    A. Map drawings of 1''=100' or less that depict existing and proposed topography (contours) with labeled elevation numbers, structures, facilities, staging areas, and soil stockpile areas on the drawings (both on-site and off-site);

    B. Best Management Practices and a construction sequence on the drawings;

    C. A complete mapping symbols legend on the drawings;

    D. On-site stormwater calculations in the narrative;

    E. Address procedures that will be used to handle potential construction runoff impacts; and

    F. Maintenance and monitoring protocol for erosion, stormwater runoff control and stabilization procedures.

BACKGROUND

Figures 2.4-6 & 7 show schematic reference to a stormwater retention basin. It is not clear in the AFC whether the retention basin will be used during construction as well as PEP operations.

DATA REQUEST

52. Provide a letter from the City of Escondido stating that the City will accept the PEP stormwater discharge to their storm drain system and their requirements for temporary and/or permanent stormwater retention basins.

53. Please provide a characterization of the stormwater flows that will be retained on-site.

54. Show these flows on a schematic for construction and operation conditions.

55. Provide a figure showing the proposed retention basin and a drainage plan showing the stormwater routing.

BACKGROUND

During operation, the PEP will store hazardous materials in such quantities that a Hazardous Materials Business Plan (HMBP) and Spill Prevention, Control and Countermeasure Plan (SPCC) will be required. The regulations allow combining these into a common document if desired. According to the AFC, cooling water treatment requires the addition of chemicals such as a pH control agent (acid or caustic), a mineral scale dispersant, a corrosive inhibitor and a biocide. On-site storage of these chemicals is proposed.

DATA REQUEST

56. Please provide a draft HMBP for the PEP.

57. Please provide a draft SPCC Plan for the PEP.

58. Please identify for each chemical storage and containment system, whether it is located inside a covered area or exposed to rainfall.

59. Please demonstrate how chemical storage and containment areas are to be drained to the sanitary sewer system with prevention of drainage to the stormwater system.

BACKGROUND

The AFC in Section 5.4 .1.2, pg. 5.4-3, states “Groundwater in the area of the Palomar site will likely be encountered within 20 feet of the ground surface. However, bedrock was encountered at six to eleven feet below ground surface during the site-specific geotechnical investigation; therefore, the borings were terminated at that depth”. The 1999 Preliminary Geotechnical Investigation describes the geologic conditions as granitic rock in varying stages of decomposition and that minor seepage conditions were observed. Apparently, there are fissures within the granite that allow for surface water seepage away from the PEP site.

60. Please provide a complete description of the hydrologic setting, both in writing and on a hydrostrategraphic map that characterizes the physical groundwater bodies (i.e.; aquifers) and geologic structures of the Escondido Creek Hydrologic Area. This information is to include all geomorphic strata and groundwater depths within the hydrologic area.

Technical Area: Traffic and Transportation
Author: Steve Brown / Tim Taylor

BACKGROUND

The traffic and transportation section of the AFC does not include a cumulative plus project construction and/or operations analysis.

In the AFC Cumulative Impacts Section 5.11.5, cumulative construction traffic volumes are identified and discussed. The AFC references a cumulative analysis in a separate Environmental Impact Report being prepared as a part of the City of Escondido's CEQA review of the ERTC industrial park project.

DATA REQUEST

61. Please provide a copy of the cumulative analysis included in the environmental impact report.

62. Please provide calculations which demonstrate how the 1,560 cumulative daily trips referenced in Section 5.11.5, p. 5.11-20 were derived.

BACKGROUND

Table 5.11-10, page 5.11-14 of the AFC and AFC Volume III, TRAN-6, Response A provide levels of service for potentially affected intersections.

DATA REQUEST

63. Please provide AM and PM peak hour level of service calculations for all potentially affected intersections.

BACKGROUND

AFC Volume III (Data Adequacy Responses) Figure 5.11-5 shows existing intersection turning movement volumes at all potentially affected intersections. The turning movement volumes depicted at the Vineyard Avenue/Country Club Drive intersection are incorrectly oriented such that the through volumes on Vineyard Avenue appear in the figure as right and left turn movements.

DATA REQUEST

64. Please modify the depicted volumes at the Vineyard Avenue/Country Club Drive intersection to show the correct orientation of approach volumes.

Technical Area: **Transmission System Engineering**
Authors: Laiping Ng
Technical Senior: Albert McCuen

BACKGROUND

The Detailed Facilities Study that is provided in Appendix B.1 of the AFC included the Rainbow Valley Interconnect transmission line. The Public Utilities Commission is currently reviewing the proposal for the Rainbow Valley Interconnect and there is a significant amount of controversy about the transmission line. Since it is uncertain whether or not the Rainbow Valley Interconnect will be constructed, staff needs to determine whether or not the Palomar Energy Project has significant transmission impacts without the Rainbow Valley Interconnect.

DATA REQUEST

65. Please provide a sensitivity study that analyzes the Palomar Energy Project without the Rainbow Valley Interconnect. This study should analyze normal loading conditions and contingencies (N-0, N-1, and critical N-2) without the Rainbow Valley Interconnect for both peak and off peak cases.

BACKGROUND

The Detailed Facilities Study submitted in Appendix B.1 of the AFC studied 2004 heavy summer cases. Staff needs both peak and off peak seasons from San Diego Gas & Electric Company (SDG&E) and proposed and selected mitigation measures in order to prepare the Staff Assessment for the Palomar Energy Project.

DATA REQUEST

66. Please provide SDG&E's Detailed Facility Study for the off peak season. Analyze the system impact with and without the project during off-peak system conditions which will demonstrate conformance or non-conformance with the SDG&E reliability and planning criteria with the following provisions:

    a. Identify major assumptions in the base cases including imports to the system, major generation and load changes in the system and queue generation.
    b. Analyze system for N-0, important N-1 and critical N-2 contingency conditions and provide a list of criteria violations in a table showing the loadings before and after adding the new generation.
    c. Identify the reliability and planning criteria utilized to determine the criteria violations.
    d. Provide a list of contingencies evaluated for each study.

e. Provide power flow diagrams (MW, % loading & P. U. voltage) for base cases with and without the project. Power flow diagrams must also be provided for all N-0, N-1 and N-2 studies where overloads or voltage violations appear.

f. List mitigation measures considered and those selected for all criteria violations.

g. Provide electronic copies of *.sav and *.drw PSLF files.

BACKGROUND

Inland Empire Energy Center (670 MW) has applied to the California Energy Commission for certification. The interconnecting point of the project is proposed at the Southern California Edison Company (SCE) 500 kV Valley substation. The Valley substation is located North of the SDG&E's Escondido substation. Based on the Palomar AFC and the draft Detailed Facilities Study received, staff is unable to determine the transmission system impacts that Inland may have on the Palomar project and other down stream transmission facilities.

DATA REQUEST

67. Please include the Inland Empire Energy Center for all base cases for the about mentioned scenarios including peak and off peak seasons, with and without the Rainbow Valley Interconnect transmission line.

68. Please provide route maps for the proposed transmission interconnection system and any new facilities our upgrades to the transmission system.

69. For all new or modified transmission facilities, please provide the environmental setting, environmental impacts and proposed mitigation measures.

Technical Area: Visual Resources
Authors: Michael Clayton / William Walters (Plumes)

BACKGROUND

Staff will need to make use of the Applicant's figures presented in the AFC and supplemental filings.

DATA REQUEST

70. Please provide three sets of electronic files on CDs of the following figures or their revisions: 2.2-1 and all figures contained in the Visual Resources Section (Figures 5.10-1 through 5.10-8c).

71. Please provide three sets of electronic files on CDs of the revisions to existing figures and new figures as requested in the following Data Requests.

BACKGROUND

The AFC (section 2.7.1, p. 2-52) states that the existing SDG&E gas system (and specifically the existing 16-inch SDG&E pipeline located immediately adjacent to the northeast corner of the project site) has sufficient capacity to serve the project site. However, the same section states that SDG&E will need to construct an upgrade in order to relieve a bottleneck in the system.

DATA REQUEST

72. Please clarify whether or not the SDG&E pipeline upgrade is necessary for the proposed project.

73. If the upgrade is necessary for the proposed project, please provide a sufficient number of existing setting photographs to characterize the landscapes crossed by the gas pipeline route.

74. If the upgrade is necessary for the proposed project, please explain whether or not any aboveground facilities would be required for the gas pipeline including pump stations and/or valves. If so, please identify their locations and describe the facility characteristics including dimensions.

75. Please identify the number of residences that would have views of the pipeline route during construction and the proximity of those residences to the route.

76. For a typical pipeline construction spread, please describe the construction equipment to be used, the length of a typical spread, and the amount of time a typical spread would be visible at any one location along the routes.

BACKGROUND

According to the AFC (Section 2.7.3, p. 2-52), reclaimed water for the proposed project would be obtained from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) via a new 1.1 mile, 16-inch supply pipeline. Brine from the project would be returned to HARRF via a new 1.1-mile 8-inch return pipeline.

DATA REQUEST

77. Please provide a sufficient number of existing setting photographs to characterize the landscapes crossed by the reclaimed water and brine return pipeline route.

78. Please clarify whether or not any aboveground facilities would be required for the pipelines including pump stations and/or valves. If so, please identify their locations and describe the facility characteristics including dimensions.

79. Please identify the number of residences that would have views of the pipeline route during construction and the proximity of those residences to the route.

80. For a typical pipeline construction spread, please describe the construction equipment to be used, the length of a typical spread, and the amount of time a typical spread would be visible at any one location along the routes.

BACKGROUND

Seven key observation points (KOPs) were established in order to evaluate both the visual setting and the potential for project-induced visual impacts. Photographs were obtained at each KOP and presented along with visual simulations of the proposed project. AFC Section 5.10.1.6 on page 5.10-3 states that "…view areas were identified that would be most sensitive to the project's potential visual impacts."

Staff believes that it is critically important to select appropriate viewing locations and present imagery in a way that enables decision makers and readers to accurately asses a project's impact on the viewing population. The AFC (p. 5.10-7) states that KOP 2 was selected to represent the views looking east toward the plant site from residences located along the west boundary of the planned industrial park. However, KOP 2 appears to be sited slightly downgrade from Oak View Way and the residences to be represented by this KOP are located up-grade from Oak View Way. As a result, the project site would be substantially screened from KOP 2, which would not be the case from the more elevated views that would be available to the nearby residences. Therefore, staff does not consider the location of KOP 2 to be appropriate. However, KOP 3 does capture a perspective that would be more representative of the residential viewing opportunities along Oak View Way. KOP 3 will be used by staff to evaluate impacts to residences along Oak View Way.

While the residential area along Oak View Way is one of the closest residential viewing locations and should be represented in the visual analysis, there are more distant

residential viewing opportunities that have less-obstructed visual access to the proposed project site. Specifically, the Coronado Hills residential area approximately 1.6 miles west of the site is at a higher elevation than the project site and would have a less-obstructed view of the Proposed Project. Also, the residential area southeast of the project site in the vicinity of Pasadero Drive (a distance of approximately 1.25 miles) also has elevated and apparently unobstructed views of the project site.

Furthermore, to accurately represent the views that would be experienced at each viewing location, images should be presented at life-size scale when viewed at a standard 18-inch reading/viewing distance. However, the images presented (setting photographs as well as simulations) are presented at approximately 59% of life-size scale when viewed at the 18-inch reading/viewing distance. The presentation of images at such a reduced scale reduces the prominence of visible landscape features, existing and proposed, and potentially understates project visual impacts.

Also, based on a recent field reconnaissance conducted by staff, it is apparent that the completed CalPeak Project is visible from some of the KOPs and yet is not shown in the existing conditions photographs for those KOPs where it is visible.

DATA REQUEST

81. Please establish a new KOP in the Coronado Hills residential area west of the project site. An appropriate location would be adjacent to the driveway to 919 Cycad Drive. Views of the project site from the KOP must be unobstructed. The setting and photosimulation images must be at life-size scale when viewed at a standard reading/viewing distance of 18 inches. Please provide four sets of high quality 11”x17” color images of the existing view and proposed project simulation.

82. Please establish a new KOP in the residential area southeast of the project site in the vicinity of Pasadero Drive. An appropriate location would be at the end of Pasadero Drive between 1122 and 1139 Pasadero Drive. The view of the project site from the KOP must be unobstructed. The setting photograph and proposed project simulation must be at life-size scale when viewed at a standard reading/viewing distance of 18 inches. Please provide four sets of high quality 11”x17” color images of the existing view and proposed project simulation.

83. Please re-scale the setting and simulation images for KOPs 1 through 7 to achieve life-size scale when viewed at a standard reading/viewing distance of 18 inches. If re-scaling results in substantial degradation of the image, please provide new high resolution setting and simulation images at life-size scale. After obtaining appropriately scaled images, please provide photocopies of high quality 11”x17” color images of the existing views and simulations.

84. Please provide new existing conditions photographs for all KOPs where the completed CalPeak project is visible. The images must be at life-size scale when viewed at a standard reading/viewing distance of 18 inches. Please provide four

sets of photocopies of high quality 11”x17” color images of the new existing conditions photographs.

85. For those KOPs where the completed CalPeak project is visible, please revise the project simulation images to include the new existing conditions base photograph that shows the completed power plant. The images must be at life-size scale when viewed at a standard reading/viewing distance of 18 inches. Please provide four sets of photocopies of high quality 11”x17” color images of the simulations.

BACKGROUND

The description of the regional setting (AFC Section 5.10.1.1, p. 5.10-1) states that there are residences scattered around the west and south perimeter of the project area. The discussion of viewer exposure on AFC pages 5.10-6 and 7 also states that “the number of residential buildings within the surrounding viewing area was counted from aerial photos and reviewed in the field.” However, the total number of residences with views of the proposed project is not specified. Although each KOP discussion specifies the number of residences represented by that particular view, it is unclear if the specified number of residences represented by the KOPs equals the total number of residential views of the project site.

DATA REQUEST

86. Based on the residential counts that have been conducted, please identify the total number of residences with views of the project site and their general locations with respect to the proposed project site.

BACKGROUND

The AFC (Section 5.10.1.4, p. 5.10-2) states that six existing lattice transmission towers would be replaced with tubular steel poles.

DATA REQUEST

87. Please provide a site map that shows the location of the existing lattice towers that would be replaced by the tubular structures.

88. Please specify the heights of the existing lattice towers.

89. Please specify how many tubular structures would be used to replace the existing lattice towers.

90. Please specify the heights of the proposed tubular structures.

BACKGROUND

The AFC (Section 5.10.1.4, p. 5.10-2) states that the existing 69 kV transmission lines running along the ridgeline and/or through the planned industrial park would be rebuilt and/or be placed underground. Based on this uncertainty, it appears possible that the lines could be rebuilt and not undergrounded. It is important that the visual analysis of cumulative impacts consider a reasonable worst case scenario with regard to visible project components. The simulations provided in the visual resources section have assumed that the lines would be undergrounded (since they are not present in the simulations) even though there appears to be no certainty that they would.

DATA REQUEST

91. Please describe the rebuild scenario in detail including the following information: (a) number of poles, (b) pole construction material (wood or steel), (c) pole color (if other than wood), and (d) pole locations.

92. Please provide a site map showing the location of the 69 kV lines and proposed pole locations.

93. Please revise the "After Condition" simulation images for KOP 1 (Figure 5.10-2c), KOP 3 (Figure 5.10-4c), and KOP 6 (Figure 5.10-7c) to include the rebuilt 69 kV transmission lines. Please add the rebuilt 69 kV transmission lines to the simulation images for the two new KOPs requested above. Figures must be presented at life-size scale when viewed at a standard reading/viewing distance of 18 inches. Please provide four sets of photocopies of high quality 11"x17" color images of the simulations.

BACKGROUND

The AFC section on night lighting (p. 5.10-3) states that the additional project lighting will not represent a complete change in the night lighting conditions visible in the area in that the adjacent industrial area has extensive night lighting.

DATA REQUEST

94. Please provide a description of existing night lighting as visible from KOPs 1, 3, and 6.

95. Please provide nighttime photographs showing the existing night lighting in the project vicinity as viewed from KOPs 1, 3, and 6. Images must be presented at life-size scale when viewed at a standard reading/viewing distance of 18 inches. Please provide four sets of photocopies of high quality 11"x17" color images.

96. Please identify whether or not facility stack lighting would be required and if so, by which agency or requirement, and in what manner.

97. Please describe night lighting to be used during project construction.

BACKGROUND

The description of KOP 4 (AFC p. 5.10-17) states that KOP 4 "…is from a vacant lot along Harmony Grove Road."

DATA REQUEST

98. Please provide a map or adjacent street addresses that precisely locate KOP 4.

BACKGROUND

The description of KOP 6 (AFC p. 5.10-19) states that KOP 6 "…is located in a new housing development off of Deodar Road and Via Salerno that is currently under construction."

DATA REQUEST

99. Now that the development is nearing completion, please provide a street address that precisely locates KOP 6.

BACKGROUND

Mitigation Measure VIS-1 (AFC p. 5.10-23) states that the plant site will incorporate berms, trees, and other landscaping that provides further visual screening in order to minimize visual impacts on the surrounding area. Also, landscaping is apparent in some simulations though the AFC does not indicate what stage of vegetation growth is represented in the simulations.

DATA REQUEST

100. Please provide a conceptual landscaping plan that shows the location of all berms, trees, and other landscaping.

101. Please provide descriptive information about the landscaping plan that details species to be used, numbers, and locations.

102. Please clarify what stage of vegetation growth is represented in the simulations (initial planting, 5 years, 10 years, etc). If the simulations are not at five years of growth, please provide four sets of photocopies of high quality 11"x17" color images of simulations with the landscaping at five years of growth.

BACKGROUND

Mitigation Measure VIS-3 (AFC p. 5.10-23) states that the perimeter of the plant site shall be secured with aesthetic steel fencing or screen walls.

DATA REQUEST

103. Please explain what is meant by the term aesthetic steel fencing.

104. Please describe the design of the screen walls including length and height, locations, and construction materials.

105. If screen walls are to be included in the Proposed Project under Mitigation Measure VIS-3, please add the screen walls to the visual simulations of the Proposed Project and provide four sets of high quality 11"x17" color photocopies of the simulations.

BACKGROUND

The AFC discussion of Cumulative Impacts (AFC Section 5.10.6, p. 5.10-23) states that "The projects included in the cumulative impact assessment are two small, peaking power plants under construction near the Palomar project site and the ERTC industrial park within the boundaries of which the Palomar project site is located." The Cumulative Impacts discussion also states that "Although the CalPeak plant site is visually associated with the Palomar site, the extensive berms, trees, and other landscaping included in the CalPeak project design would provide visual screening that substantially mitigates the potential for significant cumulative impact."

The AFC provides "Cumulative Condition" photosimulations for KOPs 1 and 3 that show the proposed project and the proposed business park. Staff believes that it is essential to have cumulative conditions simulations for all KOPs in order to conduct a thorough cumulative impact analysis.

DATA REQUEST

106. Please provide a map that shows the Proposed Project and the location of the two peaking power plants referenced in the Cumulative Impacts analysis on pages 5.10-23 and 24 of the AFC. Also include important street names on the map.

107. Please provide cumulative conditions photosimulations for all KOPs including the two additional KOPs requested above. The cumulative conditions simulations must include the proposed project and the proposed business park. The photosimulations must be at life-size scale when viewed at a standard reading/viewing distance of 18 inches. Please provide four sets of high quality 11"x17" color photocopies of the photosimulations.

BACKGROUND

In response to a Visual Resources Data Adequacy comment, the Applicant has stated that "[t]he applicable LORS are the requirements of the City of Escondido's General Plan as implemented under the *Escondido Research and Technology Center* (ERTC*) Specific Plan*" and has provided a general discussion of LORS compliance on pages

5.10-31 through 35 in AFC Volume III-Data Adequacy Responses. However, in order for staff to assess a project's consistency with laws, ordinances, regulations, and standards, the analysis must address specific objectives, policies, guidelines, and standards. Furthermore, conclusions regarding project consistency with LORS must be based on specific evidence as to how the project would comply with the relevant standard. For example, it is not sufficient to state (AFC Volume III, p. 5.10-34) that "…tall, dense plant materials will be used where feasible to screen structures from distant vantage points." Staff must be able to see what kinds of vegetation will be planted and in what location to be able to assess whether or not landscaping would be effective in meeting the LORS requirement.

DATA REQUEST

108. Please provide a LORS analysis that addresses consistency with each relevant objective, policy, guideline, and standard of the ERTC Specific Plan. If the Applicant believes that the project would be consistent with a particular objective, policy, guideline, or standard, the consistency discussion must describe specifically how compliance would be achieved and any necessary supporting documentation (such as a conceptual landscape plan that shows types, numbers and locations of plantings) must be provided.

109. Please provide the name of the appropriate City contact that can verify that the only applicable LORS are those found in the ERTC Specific Plan.

BACKGROUND

The Applicant has indicated in the AFC Data Adequacy Supplement (pg. 5.10-28) that they are going to use a plume-abated cooling tower. In order to complete its assessment, staff requires additional design data for the plume-abated cooling tower.

DATA REQUEST

110. Please provide the name of the assumed vendor for the plume-abated cooling, tower and design data and drawings for the type of plume-abated cooling tower selected for this project. This design data should include a plume-abatement design point. Other recent projects that have specified plume-abated towers have provided this design point in terms of the ambient conditions under which plume will first begin to form (such as 38°F and 80% relative humidity). Other specific design data that is required is the design heat rejection rate of the tower (wet and dry sections), and specifics on how the tower's control system will be set to minimize plume formation.

BACKGROUND

The Applicant, in the AFC Data Adequacy Supplement (pp. 5.10-29 and 5.10-30), has provided a summary of the Combustion Stack Visible Plume (CSVP) modeling results for non-duct firing operation of the two Heat Recovery Steam Generator (HRSG)

exhausts. Staff needs to review the modeling files and the meteorological data used to complete its assessment of the HRSG vapor plumes. Additionally staff needs HRSG exhaust data for duct firing operation.

DATA REQUEST

111. Please provide three electronic copies of the CSVP modeling files used in the CSVP plume analysis that was summarized in the AFC Data Adequacy Supplement. Also please provide three electronic copies of the raw meteorological data, prior to processing, with an indication of its format (i.e. CD144, etc.).

112. Please identify the relative humidities, in percent, assumed for each of the ambient temperatures (20°F, 62°F and 110°F) given in Table 5.10-7 of the AFC Data Adequacy Supplement (pg. 5.10-29)

113. For staff to completely assess the plume formation potential of the HRSG exhaust, please at a minimum provide HRSG exhaust parameter data to fill the following table.

Full load with Maximum Duct Firing and Power Augmentation			
Ambient Condition	Moisture Content (% by weight)	Exhaust Flow Rate (lbs/hr)	Exhaust Temperature (°F)
20°F			
62°F			
110°F			

114. Please indicate any relationship between the use of duct burners and/or power augmentation with ambient conditions (i.e., specify the temperature/relative humidity conditions when either or both are not expected to be in operation), and any other operating limitations of the duct burners or power augmentation that can be stipulated to by the Applicant.

Technical Area: Waste Management
Author: Alvin Greenberg, Ph.D.
Technical Senior: Mike Ringer

ISSUE

The State of California requires that local waste management authorities and communities recycle a minimum of 50 percent of all solid waste generated. In some smaller waste management districts, a large project's waste can overwhelm the ability to meet this requirement. The AFC does not provide adequate information on the amounts of recycling the applicant intends to do on either construction or operation waste. This information is necessary in order to determine the impacts on the environment and the waste disposal facilities.

DATA REQUEST

115. Please provide a draft Waste Management Plan indicating how the applicant plans to comply with waste diversion requirements of state and local ordinance. The Plan must indicate the percentage of hazardous and non-hazardous wastes that would be diverted from landfill disposal.

ISSUE

The Phase I Environmental Site Assessment prepared by ENSR noted that "there is the potential for the presence of environmentally persistent pesticides in the shallow subsurface soils in [the northern] portion of the subject property." In order to properly protect site workers and the public, staff needs to know if the soils on site do indeed contain elevated concentrations of pesticides.

DATA REQUEST

116. Please provide a Phase II ESA consisting of appropriate soil and groundwater sampling and analysis for pesticides (using EPA Method SW8151A).

Technical Area: Worker Safety and Fire Protection
Author: Alvin Greenberg, Ph.D.
Technical Senior: Rick Tyler

BACKGROUND

To assess the potential for impacts on workers and the public associated with an accidental fire at the facility, staff needs specific information about the level of staffing and on-site fire response. Page 5.11-17 indicated that there will be 20 full time employees.

DATA REQUEST

117. Please provide the number of fire-fighting trained staff out of the 20 full time employees that would be on-site at any given time. Please also describe their duties and responsibilities in the event of a fire at the facility, and their ability to respond to a fire using on-site fire-fighting resources including automatic and manually activated systems.