

CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512



June 22, 2000

Mr. Gary Chandler
Project Manager
Mountainview Power Company, LLC
25770 San Bernardino Avenue
San Bernardino, CA 92408

Dear Mr. Chandler,

MOUNTAINVIEW POWER PLANT PROJECT DATA REQUESTS

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission staff requests the information specified in the enclosed data requests. The information requested is necessary to: 1) more fully understand the project, 2) assess whether the facility will be constructed and operated in compliance with applicable regulations, 3) assess whether the project will result in significant environmental impacts, 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner, and 5) assess potential mitigation measures.

This first set of data requests (#1-124) is being made in the areas of air quality, biological resources, cultural resources, efficiency, geological resources, land use, noise, traffic & transportation, visual resources, soil and water resources. Written responses to the enclosed data requests are due to the Energy Commission staff on or before July 31, 2000, or at such later date as may be mutually agreed.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, you must send a written notice to both Commissioner Michal D. Moore, Ph. D., Presiding Committee Member for the Mountainview Power Plant Project proceeding, and to me, within 15 days of receipt of this notice. The notification must contain the reasons for not providing the information, the need for additional time and the grounds for any objections (see Title 20, California Code of Regulations section 1716 (e)).

If you have any questions regarding the enclosed data requests, please contact me at (916) 653-1245 or e-mail jreede@energy.state.ca.us.

Sincerely,

James W. Reede, Jr.
Energy Facility Siting Project Manager

Enclosure

cc: POS

Mountainview Power Plant Project

Data Requests

(00-AFC-2)

Technical Area: Air Quality

Author: Gabriel D. Behymer & Joseph M. Loyer

BACKGROUND

Section 6.8.4 of the Applicants AFC indicates that “mitigation will be provided for all operation emissions increases from the MVPC project in the form of offsets....” The identification and approval of appropriate emissions offsets is frequently a cause of project delays. Staff encourages the Applicant to expedite the process of identifying and securing sufficient verifiable emissions offsets.

DATA REQUEST

1. Please provide documentation of all proposed offsets. This documentation may be any one of the following:
 - A. A Letter of Intent,
 - B. An Options Contract, or
 - C. An actual certificate.
 - D. Identification of any offsets under negotiation including a discussion of the status of obtaining the offsets.

BACKGROUND

The applicant is proposing to use standard dust control measures for fugitive dust abatement and some controls for construction equipment emissions. Through other recent siting cases, staff has been made aware of emission reduction measures that could significantly reduce the emission impacts from construction equipment that were not considered by the applicant. These measures range from simple engine modifications to oxidizing soot filters.

DATA REQUEST

2. Please evaluate and comment on the technical and economic feasibility of the following construction equipment emission reduction methods and technologies. Please reference the source of all information reported and compare these methods to those described on page 6.8-57 of the AFC.
 - A. Retarding engine timing on construction equipment (2 to 4 degrees),
 - B. Using construction equipment with pre-combustion chamber engines,
 - C. Using diesel fire construction equipment with high pressure injectors,
 - D. Installing catalytic converters on all gas power construction equipment,
 - E. Replacement of diesel generators with electric driven motors via existing power transmission corridors where possible,
 - F. Installing oxidation catalysts on all diesel powered construction equipment,
 - G. Installing oxidizing soot filters on all applicable diesel powered construction equipment,
 - H. Installation of ceramic engine coatings to all applicable diesel powered construction equipment,

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- I. Using alternative, low-emission fuels (i.e., CNG) and/or fuel additives (i.e., PuriNOx) for all construction equipment, and
- J. Using low sulfur content (50 ppm or better) diesel fuel for on-site construction equipment.

BACKGROUND

The project applicant currently proposes to replace two existing cooling towers (associated with the existing boilers) with two 4-cell cooling towers. Additionally, the applicant proposes to build two new 10-cell cooling towers (associated with the four new combustion turbines) (AFC page 6.8-54). These cooling towers are to be forced mechanical draft towers with a drift rate of 0.0006%. Cooling towers of this kind have PM10 emissions and associated visible condensation plumes that can cause impacts near the facility. The project is located less than a mile from the San Bernardino International Airport (SBI) and 200 feet from the nearest residence.

It is staff's opinion that with the proximity of SBI and the nearest residence, staff must evaluate whether the project cooling tower emissions have the potential to cause significant environmental impacts and hamper existing air traffic patterns at SBI. Additionally, air quality staff has been informed that the facility cooling tower water use may be a significant issue.

DATA REQUEST

- 3. Please submit a written report from the appropriate authorities at the San Bernardino International Airport, formally Norton Air Force Base (SBI/NAFB), containing the following information and submit the report to the California Energy Commission:
 - A. In the last ten years of operation, how often has the cooling tower vapor plume associated with the existing power plant facility been identified as the reason to alter aircraft landing patterns and/or procedures?
 - B. Have landing procedures at SBI/NAFB ever included airport advisories regarding the existing power plant in the last ten years?

BACKGROUND

The project applicant has identified the potential emission rates from the GE Frame 7FA turbines that they intend to use (AFC Page 6.8-69, Table 6.8-31). However, some of these emission rates appear to be significantly different from similar projects recently licensed by the Energy Commission. Most notably PM10, which we have seen permitted at 18 lbs/hr has been estimated by the applicant at 11 lbs./hr. Staff needs to know the substantiation for these much lower emission rates.

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DATA REQUEST

4. Please submit all vendor guarantees for the turbine, heat recovery steam generator and post combustion controls that indicate the overall facility NO_x, SO_x, CO, VOC and PM₁₀ emission rates.
5. Please justify any difference between the facility emission rates as indicated by the vendor guarantees and the emission rates reported in Table 6.8-31 of the AFC.

BACKGROUND

The initial commissioning of a power plant project typically involves a limited period of time when the emission limits that would be required during normal operation are exceeded. This is typically required to test the power plant system components and correct any errors or malfunctions. The applicant has not stated how long the initial commissioning period would be, what emissions would be expected, and what mitigation would be proposed. The applicant states that the expected emissions may be similar to emissions characteristics of 50% load operations (AFC page 6.8-84).

DATA REQUEST

6. Please provide the estimated length of each phase of initial commissioning, a detailed description of each type of commissioning test, the estimated maximum emissions expected, and any proposed mitigation.

BACKGROUND

The applicant did not include the contribution of ammonia slip to the formation of secondary PM₁₀. Ammonia slip can contribute to the formation of secondary PM₁₀ by reacting with NO_x and SO_x to form nitrates and sulfates. This reaction can contribute to existing violations of the PM₁₀ ambient air quality standards.

DATA REQUEST

7. Please evaluate the contribution of ammonia slip emissions from the proposed power plant on the formation of secondary PM₁₀.

BACKGROUND

The applicant has stated that the estimated startup emissions of the proposed power plant are 20 lbs/hr for NO_x, 100 lbs/hr for CO and 3.5 lbs/hr for VOC during a three-hour startup event. It has been the experience of the Energy Commission staff that applicants can state and model emission factors that they do not wish to be limited to in the conditions of certification.

DATA REQUEST

8. Does the applicant intend to have the emission estimates stated in Table 6.8-32 in lbs/hour as permit emission limits during startup procedures?

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BACKGROUND

The applicant alludes to steam injection for power augmentation in the data adequacy response (AFC Volume 3) in figure 2.8-1. It has been the experience of Energy Commission staff that applicants can change significant portions of the project description late in the licensing process. This has the potential to cause serious delays in the project schedule.

DATA REQUEST

9. Please state whether or not power augmentation is being proposed for the Mountainview Power Plant.

BACKGROUND

The applicant has provided the meteorological data used in all their submitted modeling efforts. However, this meteorological data has been corrected for purposes of modeling from the original data as it was collected. Staff needs a copy of the original, uncorrected meteorological data to verify that the corrections made are within EPA recommended guidelines.

Additionally, the applicant has provided only one year of meteorological data (1981 Redlands Monitoring station), while also providing ten years of ambient air quality data (1989-1998). While overall gross meteorological weather patterns do not change significantly from year to year, specific weather patterns at single stations can show significant differences from year to year. For this reason, it is a generally held practice to use five years worth of the most recently available meteorological data. From communications between the South Coast Air Quality Management District (SCAQMD) and Energy Commission staff, staff was informed that the 1981 meteorological data was sufficient in the District's view for modeling purposes. It is staff's opinion that this statement needs to be supported by appropriate analysis demonstrating that the 19 year old meteorological data that was used by the applicant is an appropriate surrogate for more recent meteorological data.

DATA REQUEST

10. Please provide a copy of the original, uncorrected meteorological data file from the Redlands monitoring station for the year of 1981. If this information is not available, please provide a letter from the South Coast Air Quality Management District stating that the 1981 Redlands meteorological data was corrected according to US EPA recommended guidelines.
11. Please provide a letter from the South Coast Air Quality Management District with supporting analysis demonstrating that that the 19 year old meteorological data (1981 Redlands) that was used by the applicant is an appropriate surrogate for more recent meteorological data.

**Mountainview Power Plant Project
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BACKGROUND

While reviewing the modeling analysis for the estimated startup emission impacts for the proposed power plant, staff noted a potential minor error in the emission factor used. In the file labeled STRT-NOX.out the emission rate identified for the unit TUR#34 is 4.478 g/s which represents the emissions from one turbine operating at 100% load with duct burners firing at an ambient temperature of 30 °F, while the emission rate for unit TUR12 reflects two turbines in startup mode. The applicant states in the AFC that the assumptions for modeling startup impacts are two turbines starting up and two turbines operating at full load. Staff would like the applicant to clarify their startup assumptions and/or modeling analysis.

Additionally, staff notes that the stack diameter for the combustion turbines has changed from the screening level (5.486 meters) to the refined level modeling (7.758 meters). Staff further notes that the exhaust temperatures, flows and velocities were held constant while the emission rates were changed from the screening level to the refined level modeling to reflect the change in stack diameter.

DATA REQUEST

12. Please verify that the modeling performed for the startup emissions accurately represent two turbines in startup mode and two turbines at full load.
13. Please verify the heat recovery steam generator stack height, stack diameter, exhaust temperature, exhaust flow, exhaust velocity, short-term (1-hour, 3-hour, 8-hour and 24-hour) and long-term (annual) emission rates for NO_x, SO_x, CO, VOC and PM₁₀.

BACKGROUND

The modeling files provided by the applicant show that the emergency generator stack height is equal to the stack height for the existing boilers (39.62 meters or approximately 120 feet). This stack is 18 inches in diameter and is connected to an IC diesel engine rated at 5,900 Bhp. This is a large engine with a large diameter stack that may emit a substantial amount of pollutants. A taller stack will tend to increase dispersion, thus decreasing emission impacts from any source. However, a stack this tall may cause a significant amount of backpressure. Staff needs the applicant to verify the height of this stack.

DATA REQUEST

14. Please verify the height of the emergency generator exhaust stack.

BACKGROUND

Appendix G.2 of the AFC provided by the applicant estimates the construction equipment size as part of the construction emission estimate. Several pieces of construction equipment seem to be significantly under-sized when compared to construction equipment for other recent siting cases. This could have the effect of underestimating emission impacts from construction equipment, or abnormally prolonging construction.

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DATA REQUEST

15. Please verify the brake-horse-power of all construction equipment listed in Appendix G.2.

BACKGROUND

The US EPA has stated in a letter to all Air Districts in California that the technology known as SCONOX, and possibly XONON in the near future, is to be included in the BACT analysis required of all power plant applicants. The applicant for Mountainview has not completed a BACT analysis at this time.

DATA REQUEST

16. Please provide a top-down BACT analysis for the Mountainview project that includes SCONOX and any other applicable control technologies as soon as it is available.

BACKGROUND

Part of the confidential filing submitted by the applicant is missing.

DATA REQUEST

17. Please provide Enclosure 1 as identified on page 3, paragraph 2, 5TH sentence of the confidential filing.

**MOUNTAINVIEW POWER PLANT PROJECT
DATA REQUESTS
(00-AFC-2)**

Technical Area: Biological Resources

Authors: Natasha Nelson/Dr. Jeff Kaufmann/Ileene Anderson

BACKGROUND

Since the filing of the AFC on February 1, 2000, two wildlife species have had a substantial change in their regulatory status: Santa Ana sucker (*Catostomus santaanae*) has been listed as Threatened by the U.S. Fish and Wildlife Service (USFWS) and the USFWS has proposed critical habitat for the California gnatcatcher (*Polioptila californica californica*). These regulatory changes require a new level of analysis for these two species.

DATA REQUESTS

18. Please identify the potential for “take” of the Santa Ana sucker (with the listing of this species, the definition of “take” has expanded beyond just the loss of individuals), including a discussion of the potential for sedimentation of Santa Ana River waters from the trenching, or from overland flows from the proposed generator site.

19. Please identify the location of California gnatcatcher proposed critical habitat in relationship to all proposed project features, and the potential for direct, indirect and cumulative impacts on the critical habitat.

BACKGROUND

The applicant has not identified the acreage amounts for the temporary or permanent impacts associated with the proposed project. Total acreage amount are needed to determine appropriate mitigation for loss or disturbance to sensitive habitats.

DATA REQUESTS

20. Please provide in a table format:
 - a. Total acres that will be temporarily or permanently impacted by the project facilities (power plant, and each linear facility including transmission lines, natural gas, freshwater, and wastewater pipelines) during project construction and operation.

 - b. Total acres that will be temporarily or permanently impacted by the construction and usage of the project’s off-site staging areas for the natural gas, freshwater, and wastewater pipeline construction.

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- c. Total acres of each plant community type that will be temporarily or permanently impacted by all project facilities (power plant, and each linear facility including transmission lines, natural gas, freshwater, and wastewater pipelines) and off-site staging areas. Please identify plant communities using resource agency-accepted community identification [Holland (1986) or Sawyer and Keeler-Wolf (1995)].
- d. Total acres of permanently or temporary impacted lands that are conserved lands? Conserved lands are defined as lands managed by either a federal or state agency such as the Bureau of Land Management, Department of Energy, or the California Department of Fish and Game (CDFG) or a private habitat protection organization such as the Center for Natural Lands Management.
21. Please identify the width of all trench corridors, separating the area needed for the trench and areas required for construction equipment, the width for the waterway crossings, and indicate if the corridors would be maintained at any specific level of vegetative cover or left unmaintained during operations.

BACKGROUND

Due to the many sensitive biological resources found in the project region, the applicant may need to develop a Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) to be utilized during project construction and operation. The BRMIMP is intended to cover all measures the Applicant will employ to avoid impacts and assign responsible parties for the biological monitoring during construction. The applicant will work with the Energy Commission staff, the California Department of Fish and Game and the U. S. Fish and Wildlife Service to develop a draft plan prior to preparation of the Final Staff Assessment (FSA). If the project is certified, a final BRMIMP must be completed and ready for use prior to the start of any habitat disturbance. The Energy Commission staff can provide an example of a current BRMIMP at the applicant's request.

DATA REQUEST

22. Please provide an update on the work being done to create the draft BRMIMP. In addition, please provide an annotated outline of what will be included in the BRMIMP. Please ensure that the BRMIMP includes a revegetation/restoration plan to address the project's temporary impacts. In addition, please identify when the applicant intends to provide a draft BRMIMP.

BACKGROUND

No discussion is provided about the proposed project's consistency with a multiple species habitat conservation plan (MSHCP) being developed for southwestern San Bernardino County.

**MOUNTAINVIEW POWER PLANT PROJECT
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(00-AFC-2)**

DATA REQUEST

23. Please provide a discussion of whether this project will need to be consistent with the MSHCP goals. If the Applicant has been in contact with MSHCP staff, please identify the contact.

BACKGROUND

For staff to assess impacts to the area's wildlife and plants, an additional discussion of direct impacts must be submitted. The AFC did not contain a discussion of three potential direct impacts that staff believes could result from the proposed project. Additional discussion of the methodology and justification of the impact determination also should be provided.

DATA REQUEST

24. Please provide a discussion of expected light and noise impacts on the sensitive species identified as likely to occur near the proposed generator units.
25. Please discuss the potential for soil erosion and siltation of habitats offsite during operations (e.g. surface water releases into the Santa Ana river), and what methods may be employed to prevent this potential impact.
26. Identify the likelihood for a spill of ammonia or sulfuric acid during operations, and the potential impacts a spill could have on sensitive wildlife or plants, or their habitat.
27. Please provide the methodology and justification for the determination of "potential" and "unlikely to occur" that are found in AFC Table 6.13-2.

BACKGROUND

Staff is concerned about the indirect and cumulative effects of the proposed project on sensitive biological resources and their habitat. Since the power plant is sited close to the Santa Ana River, and the natural gas and water pipelines may cross waterways with significant biological resources, staff needs to gain a better understanding of the potential indirect and cumulative effects of the proposed project on the local biological resources.

DATA REQUESTS

Please provide a discussion of:

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28. Whether the expected levels of nitrogen (as presented in the Project Description, AFC pg. 2-30) would/would not impact nearby riparian, wetland, and alluvial fan scrub habitat and soils.
29. How groundwater pumping on-site would affect the riparian community, and any sensitive species found in adjacent sensitive areas, in the vicinity of the power plant.
30. Any proposed or approved bridge improvements or stream bank installations by San Bernardino County, City of San Bernardino, City of Redlands, or CalTrans that cross the same waterways (for approximately 1 mile upstream and downstream) to be used for project's natural gas and water pipelines. The discussion should evaluate the cumulative impacts to sensitive species of multiple proposed actions occurring at the same time, if appropriate. Alternatively, please provide confirmation that these jurisdictions do not have bridge or stream bank projects that could result in a cumulative impact.

BACKGROUND

The Alternatives discussion to the proposed project was limited largely to alternative roadways that could be used for the gas line. A more through discussion of the alternatives is needed in terms of potential impacts to sensitive habitat.

DATA REQUESTS

Please identify for each alternative route:

31. total acres of riparian or wetland habitat that would be permanently or temporarily impacted by construction of the natural gas pipeline [if trenching becomes the only feasible alternative],
32. total acres of Delhi sands soil that would be permanently or temporarily impacted by construction of the natural gas pipeline, and
33. if any alternatives were considered to reduce project impacts to riparian habitats, alluvial fan sage scrub, Delhi sands, wetlands, and other sensitive habitat types.

BACKGROUND

Additional discussion of sensitive plant communities and the impacts to them is needed for staff to make a complete determination of the proposed project's effect on the natural

**MOUNTAINVIEW POWER PLANT PROJECT
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(00-AFC-2)**

environment. The state recognizes two sensitive riparian communities (Southern, Cottonwood Willow Riparian Forest [SCWRF] and Southern Riparian Scrub), only one of which (SCWRF) was identified in the AFC. Both of these communities may be present north of the proposed project or along the waterways that the natural gas and water pipelines cross.

DATA REQUESTS

34. Please describe both communities (if present) including location, acreages, and whether potential impacts would be temporary or permanent.

35. In AFC Figure 6.13-4, two areas are identified as “*Juglans*” that appear to have a combined size of slightly over an acre.
 - a. Please identify the species of this *Juglans* in the species list.
 - b. If these areas are *Juglans californica* var. *californica*, please address as a sensitive community (see above), because this community (Southern California Walnut Woodland) is recognized by the state as sensitive.

BACKGROUND

One of the USFWS letters to the applicant regarding this AFC (dated 5/2/00) identified several sensitive plant species that were not addressed in the AFC. In order to evaluate impacts, staff will need to know the potential for these species to be present at or near the proposed project.

DATA REQUESTS

36. Please provide some discussion on the potential for direct temporary or permanent and indirect impacts on the following sensitive plant species:
 - a. Marsh sandwort (*Arenaria paludicola*) – Federally and state-listed endangered; grows amongst *Scirpus* species and *Typha* species in freshwater marshes and slow water environments.
 - b. Nevin’s barberry (*Berberis nevinii*) - Federally and state-listed endangered; found in sandy/gravelly alluvial scrub.
 - c. Thread-leaved brodiaea (*Brodiaea filifolia*) - Federally and state-listed endangered; found in coastal scrub and grasslands in clay soils.

**MOUNTAINVIEW POWER PLANT PROJECT
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- d. Slender-horned spineflower (*Dodecahema leptoceras*) - Federally and state-listed endangered; found in alluvial scrub.

BACKGROUND

Plant community information is missing from AFC Figures 6.13-3, 6.13-4, 6.13-5 and 6.13-6.

DATA REQUESTS

37. Please provide revised AFC figures 6.13-3, 4, 5, 6 to provide vegetation communities for all mapped areas. For example, on Figure 6.13-3, large areas within the Santa Ana River, north of the water and east of the railroad, are not designated.

38. Please identify sensitive plant communities on Figures 6.13-3, 4, 5 and 6.

**Mountainview Power Plant
Data Requests
(00-AFC-2)**

Technical Area: Cultural Resources

Author: Dorothy Torres

BACKGROUND

Supplement to the AFC Volume III provided copies of correspondence that was sent to members of the Native American community notifying them of the proposed project.

DATA REQUEST

39. Please provide a copy of the correspondence received or a summary if the response was a phone call, if any Native Americans responded to the notification letters sent by the applicant? Please address whether there has been consultation with members of the Native American community. If Native Americans have expressed concerns regarding cultural resources in the project area, please discuss how the applicant will address those concerns.

BACKGROUND

Confidential Attachment C provided information concerning cultural resources within ½ mile of the proposed project and project linears. In many cases, it is not possible to determine the contents of each site and some of the site letters and numbers did not copy well.

DATA REQUEST

40. In a table please:

- a. list each site and isolate identified within ½ mile of the proposed project and proposed project linears;
- b. briefly describe each site and indicate whether the site is historic or prehistoric;
- c. indicate whether each site or isolate lies within or adjacent to the Area of Potential Effect (APE);
- d. note whether each site has been determined eligible to the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR). If it has not, indicate whether it has been proposed for a determination of eligibility; and
- e. specify whether the cultural resource site is near the project site or identify the linear that is nearest the cultural resource site;

If information on the requested table may reveal the location of a site, please file the data response under confidential cover;

BACKGROUND

The AFC specifies that the natural gas line will be buried with a minimum of 36 inches of cover.

**Mountainview Power Plant
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DATA REQUEST

41. Please provide a discussion of the natural gas line which includes the diameter of the line and the width and depth of the trench in which it will be buried. Please also address additional procedures, if any, if the ground disturbance related to trenching for the natural gas line extends outside the 50-foot wide surveyed APE.

BACKGROUND

The AFC addresses two proposed water lines: a 2.3-mile wastewater supply line and a 1,100-foot wastewater discharge pipeline connector. There is also discussion of wells located on the project site.

DATA REQUEST

42. The discussion in the AFC (p. 6.2-10) is not clear concerning whether the 2.3-mile wastewater supply line was surveyed. Please verify whether the line was surveyed. If it was not surveyed, please survey it and provide the results.
43. Please add the wastewater supply line, the wastewater discharge pipeline connector, any existing or proposed wells, and existing or proposed access roads to the confidential maps of Cultural Resource Locations, 1a, 1b, & 1c. Please also add the APE and survey corridor and any cultural resources identified in the records search or cultural resources survey along these two water routes. Also identify the location of any potential over or under crossings of a river or creek.
44. Please provide a discussion concerning the depth and width of the trenches in which the water lines would be placed and any other areas that would be disturbed by construction of the water lines. Also address the of and the area of disturbance surrounding any new wells.

BACKGROUND

Several technical sections of the AFC discuss the potential need to obtain a Section 404 permit from the US Army Corps of Engineers (USACE).

DATA REQUEST

45. Please provide a discussion of the applications of the project that would trigger the need to obtain a Section 404 permit. Also address the process necessary to obtain the permit and provide the name and phone number of a contact or contacts at the appropriate agency or agencies involved with issuing this permit. Please also address whether an archaeological use permit will need to be obtained.

BACKGROUND

The application notes the participation of Applied Earthworks in the completion of cultural resource investigations. A review of the data showed that a technical report was not included in the documentation. Such a document is required for all studies completed under CEQA and NEPA guidelines and necessary for curation with the Office of Historic Preservation (ARMR) and the San Bernardino County Museum Archaeological Information Center.

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DATA REQUEST

46. Please provide the technical documentation prepared by Applied Earthworks to support the summary presented in the application (the archaeological records check has already been provided).

**Mountainview Power Plant
Data Request
(00-AFC-2)**

Technical Area: Power Plant Efficiency

Author: Steve Baker

BACKGROUND

In order to aid in the understanding of the operation of the project's power generating equipment, the applicant has provided in the AFC Table 1.3-1, which depicts power outputs at various operating conditions.

DATA REQUEST

47. Table 1.3-1 of the AFC shows evaporative cooling in use at the 30°F case, while section 2.1 of the AFC states that evaporative cooling is not employed at this temperature. Please clarify this discrepancy.

**Mountainview Power Plant
Data Requests
(00-AFC-2)**

Technical Area: Geology and Paleontology

June 21, 2000

Author: Robert Anderson

BACKGROUND

There are a number of faults in the vicinity of the proposed power plant that are nearby the site and are not described in the AFC (the Crofton Hills fault, the Loma Linda fault, and the Banning fault). Some of these faults are presented in the hydrogeologic report but not in the AFC text. Two specific faults that are near by and are not described are the Crofton Hills fault and the Loma Linda fault. Both faults are capable of causing strong ground shaking at the proposed project location.

DATA REQUESTS

48. Please revise the project geologic map in the AFC to highlight the location of faults within 30 kilometers of the proposed project footprint, and faults within 1,000 feet of the proposed linear facilities for the project. Please include the Crofton Hills fault, the Banning fault and the Loma Linda fault in your table of nearby faults. Please list the distance from the fault to the proposed project site and the maximum credible earthquake for the faults. Please re-verify the design event earthquake for the proposed project.

BACKGROUND

The fault system that produced the June 28, 1992, M_W 7.5 Landers earthquake and the fault that produced the M_S 6.6 Big Bear earthquake are not adequately covered in the AFC. (Only the Johnson Valley fault is mentioned).

DATA REQUESTS

49. Please revise the discussion of the Johnson Valley fault to include the Landers earthquake and include the maximum credible earthquake for the Johnson Valley/ Landers fault system to be at least a M_W of 7.5.

BACKGROUND

Table 6.1 in appendix "E" and Table 6.17-1 of the AFC list maximum earthquakes for selected faults within about 100 kilometers of the proposed power plant. The earthquake magnitude is time independent and is for a deterministic approach. However, the applicant is using the UBC 1997 edition to estimate the peak horizontal ground acceleration at the site from an unspecified earthquake and uses a probabilistic approach of 10 percent in a 50-year return interval for the earthquake. The two types of approaches (deterministic and probabilistic analysis) should not be confused and blended.

DATA REQUESTS

50. Use either the 10 percent in 50-year return interval approach to estimate the on-site peak horizontal ground acceleration for the design earthquake or use the maximum credible earthquake for the design earthquake and fault.

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Data Requests
(00-AFC-2)**

BACKGROUND

The applicant indicates that the peak horizontal ground acceleration at the site is 0.82g. This is a very high peak horizontal ground acceleration and the applicant does not provide any calculations showing how this value was determined.

DATA REQUESTS

51. Please elaborate how the peak horizontal ground acceleration of 0.82g for the site was determined, and include data, assumptions, and calculations used in determining the peak horizontal ground acceleration for the site. Also please identify the fault and magnitude of the earthquake used to determine the site peak horizontal ground acceleration for the site if the applicant uses a deterministic approach.

BACKGROUND

The applicant indicates that the San Jacinto fault crosses the proposed 24" diameter natural gas pipeline west of the proposed power plant. However, the applicant is not clear as to whether or not that surface rupture along the San Jacinto fault at the natural gas line crossing would result in a rupture of the pipeline and a release of natural gas from the line.

DATA REQUESTS

52. Please provide an analysis to determine if the proposed 24" natural gas pipeline is likely to be ruptured where it crosses the San Jacinto fault during the design earthquake or a major earthquake on the San Jacinto fault. Include all data, assumptions, and calculations supporting the analysis.

**Mountainview Power Plant
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(00-AFC-2)**

Technical Area: Land Use

Author: Patrick Angell/Michael Berman, Pacific Municipal Consultants

BACKGROUND

The applicant has stated that the existing site is to be annexed to the City of Redlands, but does not mention whether the expansion area of 38 acres will be included (AFC page 6.3-5). Energy Commission staff needs to know whether the expansion site is to be included in the annexation action.

DATA REQUEST

53. Please provide additional information regard the status of the 38-acre expansion area and the application for annexation.

BACKGROUND

Figure 6.3-3c (AFC page 6.3-16) shows the existing zoning designations for the area surrounding the Mountainview Power Plant. This figure also includes the boundaries between the cities and San Bernardino County. However, as mentioned on AFC page 6.3-5, the project site is to be annexed into the City of Redlands, while this figure currently shows the site already within the City. Energy Commission staff needs clarification on this issue.

DATA REQUEST

54. Please provide a revised AFC Figure 6.3-3c showing the current status of the project site (i.e., within the unincorporated area of San Bernardino County).

BACKGROUND

AFC Section 6.3.2.5 (Permits Required and Permit Schedule) on page 6.3-23 describes that the project would meet the criteria in Section 84.0401 of the Alternate Procedure of the Development Code of the County of San Bernardino, but provides no description of what standards are set forth in Section 84.0401. In addition, if the site is annexed to the City of Redlands, staff needs to know what development requirements would be required by the City of Redlands for the expansion of the plant if the project was not under the jurisdiction of the Energy Commission's permitting authority.

DATA REQUEST

55. 3. Please provide additional written documentation of the project's compliance with Section 84.0401 of the Alternate Procedure of the Development Code of the County of San Bernardino.
56. 4. Please identify the City of Redlands development requirements that the project would be required to meet if the project was not under the jurisdiction of the Energy Commission's permitting authority.

**Mountainview Power Plant
Data Requests
(00-AFC-2)**

Technical Area: Noise

Author: Tom Murphy

BACKGROUND

In the AFC, the applicant has concluded that noise impacts from project construction will be insignificant. This conclusion is based on projections of construction noise levels. Staff needs clarification of several of these projections.

DATA REQUESTS

57. Section 6.4.3.1.1 (page 6.4-15) – The second paragraph describes how a local berm and building structure would reduce the construction noise at the nearest residential property to below 60 dBA. Please describe the dimensions of the berm and how the barriers (berm and other structures) would reduce the noise to a level below 60 dBA (provide us with a reference or the calculations used to come up with 60 dBA).
58. Section 6.4.3.1.1 (page 6.4-16) – Table 6.4-10 provides specific noise levels for different types of individual pieces of construction equipment. Please provide the cumulative noise levels for a typical power plant construction scenario assuming that a number of pieces of construction equipment would be operating at the same time?
59. Section 6.4.3.1.2 (page 6.4-16) – Describe the construction spread assumptions (pieces of equipment, construction type, etc) used to determine the typical pipeline construction noise levels listed in Table 6.4-11. The projected noise levels appear low for pipeline construction.
60. Typically, the loudest noise encountered during construction of a power plant is the steam blow to clear pipes. Please describe the type of mitigation that would be applied to reduce the noise levels during a steam blow?

MOUNTAINVIEW POWER PLANT PROJECT
Data Requests
(00-AFC-2)

Technical Area: Socioeconomics and Environmental Justice
Author: Dr. Marcus Lane

BACKGROUND

Socioeconomics: No questions at this time.

Environmental Justice: The AFC states (see 6.7-7) that “the guidelines indicate that a minority population exists when the minority population is 50 percent of affected (sic) area’s total population.” The Federal EPA’s guidance also stipulates that this threshold should be measured in terms of an “appropriate unit of geographic analysis” and agencies should not “artificially dilute or inflate the affected minority population when selecting the appropriate unit of geographic analysis” (US EPA, 1998, 12). The analysis presented in the AFC rests on population data for the jurisdictions of Redlands, San Bernardino, and Loma Linda. Population and ethnicity data is required at a finer grain than that presented to be analytically helpful.

While the US EPA’s guidelines’ indicate this numeric measure (“at an appropriate geographic unit of analysis”), they also suggest that (i) caution should be used in relying on census data; (ii) assessor’s give equal consideration to ‘communities of interest’ as well as resident communities; and (iii) a minority group comprising a relatively small percentage of the total population may experience adverse impact due to their close proximity to the project area. The baseline data and analysis do not reflect such considerations.

DATA REQUEST

61. Provide a table showing the number of people by race and Hispanic origin for each census tract, based on the 1990 Census, within six miles of the proposed project site.
62. Describe, with reference to a field survey of the area within six miles of the proposed power plant, observations made of the existence of any pockets of residents that are distinctively low income or minority status. Describe their location and approximate boundaries.
63. Detail any knowledge of community concern about the proposed project as expressed in public meetings or the local media. If there is no knowledge of local community concern, provide a statement to that effect.

Mountainview Power Plant Power Data Requests (00-AFC-2)

Technical Area: Soil and Water Resources

Author: Lorraine White and Linda Bond

BACKGROUND

Construction and operation of the Mountainview Power Plant may induce water and wind erosion at the power plant site and along the associated linear facilities.

Stormwater runoff may also contribute to erosion and sedimentation as well as transport pollutants off-site.

DATA REQUEST

64. Please provide a draft erosion control and stormwater management plan that identifies all measures that will be implemented during construction and operation of the proposed power plant. The draft erosion control plan shall identify all permanent and temporary measures in written form and depicted on a construction drawing(s) of appropriate scale. The plan should include information on the erosion control and stormwater management practices at the existing power plant (the former San Bernardino Generating Station) and specify the changes necessary to existing practices to accommodate the new facility. The purpose of the draft plan is to minimize the area disturbed, to protect disturbed areas, to retain sediment on-site and to minimize off-site effects of stormwater runoff. The elements of the plan shall include any revegetation efforts and best management measures to control stormwater runoff during construction and operation. In addition, any measures necessary to address Nationwide Permits or Streambed Alteration Agreements, as required, should be identified. Revegetation efforts should address both erosion control and habitat restoration. The plan should specify the type of seed and fertilizer, seeding and fertilizer rate, application method, the type and size of any container plants to be used and the criteria for judging revegetation success. The plan should also identify maintenance and monitoring efforts for all erosion, stormwater runoff control and revegetation measures including measures to rectify unsuccessful revegetation efforts.

BACKGROUND

When average annual and peak water consumption figures are estimated, they generally result in an under and over estimation of a project's water demand, respectively. This is because a facility does not continuously operate year round at average or peak conditions. According to the Supplement to the AFC (March 2000), Units 1 and 2 have a plant water demand of 1,551 gallons per minute (gpm) or 2.233 million gallons per day (mgd) under full load operation, 24 hours per day (p.6.14-15d). MVPC stated that Units 3 and 4 will be designed to operate as base, peak and cyclic loads (p. 2-11). The water usage rates (Figure 6.14-7A and 6.14-8A) indicates that 4,940 gpm would be used on average; the peak usage of water will be 5,604 gpm for plant operation.

**Mountainview Power Plant Power
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(00-AFC-2)**

DATA REQUEST

65. Please show the calculations used to derive the water usage rates discussed in section 2.13.1 Water Requirements and shown in Tables 2.13-1 and 2.13-2 and Figures 6.14-7A and 6.14-8A (considering the discussion provided on the existing facility requirements on p. 6.14-15d).
66. Identify the likely number of days per year the MVPC will operate as base, peak (summer maximum conditions), and cyclic loads as well as be off-line for maintenance. Provide data that clearly shows what percent load each unit is expected to operate and specify the number of days each year this load profile is likely to occur.
67. Please provide copies of the bi-annual groundwater production reports for the last 3 cycles (total of 6 years) submitted to the San Bernardino Valley Water Conservation District for wells 1S3W18N02S and 1S3W18N03S.

BACKGROUND

The proposed project will require an average of 7.15 mgd of local groundwater. Because of the high water demand of the proposed project, alternative cooling technologies that would reduce water use should be evaluated. State Water Resources Control Board Policy 75-58 identifies a need for an analysis of cost and water use associated with alternative cooling technologies for power plants. Additional information is required regarding the alternatives that were considered by the applicant.

DATA REQUEST

68. Provide a detailed discussion of installed capital costs, direct and indirect annual operating costs, the effects on plant performance, to include power output, fuel consumption, and emissions, along with the principal design specifications for both dry cooling and wet-dry hybrid systems incorporated into the Mountainview Power Plant in place of both the proposed 4-cell and 10-cell mechanical draft cooling towers. Please identify the source of all reported information referenced. Include the following:
 - a. Provide an analysis for the cost and water use associated with the proposed Mountainview Power Plant. The analysis should include a table that compares wet, wet/dry, and dry cooling technologies, along with the estimated capital direct and indirect annual operating costs, and the anticipated water demand.
 - b. Provide the assumptions and calculations that determine the capital costs, discussions of whether labor and financing costs are included in the estimates, and the performance levels for the technologies specified.
 - c. Provide energy balances for the combined cycles at 50 percent, 75 percent, 100 percent and peak loads, at both average winter and average summer temperatures. Include any effects of inlet cooling and power augmentation.

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- d. Provide the quantities of water used and wastewater discharged, and estimates of water, treatment, clean-up, and any other chemicals required for the various configurations.
 - e. For each of the cooling technologies discussed above, provide the direct annual operating costs, including the calculations and basis for each of the following cost elements: labor, maintenance, energy, spare and renewal parts, materials and waste.
 - f. For each of the cooling technologies discussed above, provide the indirect annual operating costs, including the calculations and basis for each of the following cost elements: overhead, administration, tax payments and credits, insurance and capital recovery.
69. Provide a discussion of the relative environmental advantages and disadvantages of wet, wet/dry, and dry cooling technologies. Include an evaluation of water demand, particulate matter emissions, visual resource implications, and land use requirements associated with the use of the three cooling options.
- g. Quantify air emissions from the project stacks and cooling towers, efficiency and capacity losses, and increased parasitic loads for the three cooling options under conditions of both constant and maximum fuel use.
 - h. Quantify the footprints and dimensions of the cooling towers for the three cooling options.
 - i. Quantify the occurrence and size of visible plumes and the noise levels for the three cooling options.

BACKGROUND

As described in the AFC, MVPP will discharge a maximum of 0.288 mgd “during plant upset periods” (AFC, p. 6.14-15) to the SARI brine line. The SARI line will convey the wastewater to Orange County Sanitation District’s Fountain Valley Wastewater Treatment Facility for treatment prior to discharge to the Pacific Ocean (AFC, p. 2-38). Elsewhere in the AFC, these periods are described as “abnormal operating conditions (AFC, p. 2-43).” Currently the SARI line is fully subscribed and the applicant is negotiating to purchase capacity in this facility.

DATA REQUEST

- 70. Please provide an explanation of what is meant by “upset periods” and/or operating conditions that would be considered “abnormal”. Please provide a discussion of how frequently these conditions are expected to occur and what the total annual discharge quantities are likely to be to the SARI line.
- 71. Please provide a copy of a complete application for the Direct Connection Permit that will be submitted to the Santa Ana Watershed Project Authority.
- 72. Please provide verification that the applicant has obtained adequate capacity rights to discharge the specified waste amounts to the SARI line. If the applicant

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has not yet secured adequate capacity rights to the SARI line for the plant's wastewater discharge, please specify when the applicant anticipates such rights will be secured and what milestones or barriers must be overcome to obtain these rights, if any.

73. Identify the NPDES permit held by the Fountain Valley Wastewater Treatment Facility and any violations or exceedances of the permit conditions for the preceding period of 1 year. Provide all information required by the NPDES permit held by the treatment facility to accept the project's wastewater under the U.S. EPA pretreatment of industrial wastes established by the Clean Water Act (40 CFR 423) for this category of industrial discharge.

BACKGROUND

As described in the AFC, MVPP will utilize groundwater from two existing on-site wells, a new on-site well and the offsite Gage Canal wells, or a combination of groundwater and "surface water from the City of Redlands Wastewater Treatment Plant depending upon achieving satisfactory resolution of quality and treatment cost issues" (AFC, 6.14-23). In the Supplement to the Application for Certification (March 31, 2000), MVPC supplied staff with some additional information on the use of reclaimed water. However, it is unclear from this information what is the nature of the "quality and treatment cost issues." In addition, the California Department of Health Services (DHS) is proposing to regulate the use of recycled water in cooling towers under Title 22 of the California Code of Regulations (proposed section 60306). When recycled water is used in a cooling tower that creates a mist, the regulations would require the following:

- a) The recycled water used must be disinfected tertiary recycled water (DTRW);
- b) A drift eliminator shall be used whenever the cooling system is in operation; and
- c) A chlorine, or other biocide, shall be used to treat the recirculating water to minimize the growth of Legionella and other micro-organisms.

It is unclear if the treatment of the effluent proposed by the applicant satisfies these requirements for the recycled water to use at the MVPP.

DATA REQUEST

74. Please explain what "quality and treatment cost issues" must be resolved prior to the use of effluent from the City of Redlands Wastewater Treatment Plant. Please identify both estimated capital and operating costs, all assumptions, examples and information sources associated with the use of reclaimed water at the proposed power plant.
75. Please explain how the on-site treatment proposed by the applicant will, in fact, satisfy the California Department of Health Services' proposed Title 22 requirements for the cooling tower make-up.
76. Metals and trace elements are a concern when using reclaimed water, particularly when concentrated in cooling towers. Provide additional analytical

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data on the reclaimed water source for metals and trace elements using an analytical method with analytes and detection limits comparable to U.S. EPA Method 200.8, Inductively Coupled Plasma – Mass Spectrometry. Report all analytes and detection limits. Provide calculations of the estimated concentrations of all constituents of concern in all waste or process water streams, and in the total wastewater discharge to the Fountain Valley Wastewater Treatment Facility.

77. The information provided in the AFC/Supplement identified the type of information needed in a report of waste discharge (ROWD) application, not the specific information required in a ROWD. The application requirements for a ROWD are detailed in "COMBINED SWRCB/CIWMB REGULATIONS DIVISION 2, TITLE 27". Please provide all information required by the RWQCB listed in Division 2, Title 27, Article 4, SWRCB- Development of Waste Discharge Requirements (WDRs). Section D (21750. SWRCB-Waste Management Unit Characteristics and Attributes to be Described in the ROWD), and Section F (21760. SWRCB- Design Report and Operations Plan) clearly list and discuss the information required. Please reference by section any information contained in the AFC that addresses these information requirements.

BACKGROUND

Included in the AFC, the applicant provided staff with a hydrogeologic study conducted by ARCADIS Geraghty & Miller (January 2000). This study evaluated current water supply availability and future water requirements for the proposed plant (AFC, Appendix K). Several documents were referenced in this study.

DATA REQUEST

78. Please provide staff with copies of the following referenced reports as cited in the hydrogeologic study: CSM, 1997; Dutcher, L.C., and Garrett, A., 1963; Geraghty and Miller, 1997; Hardt and Hutchinson, 1980; HIS-Geotrans, 1997; HIS-Geotrans, 1998a, HIS-Geotrans, 1998b; HIS-Geotrans, 1999; SBVMWD, 1998; SBVMWD, 1999; Slade, R.C., 1986; Van Genuchten, M.Th., and W.J. Alves 1982.

BACKGROUND

As described in the AFC, Appendix K, the applicant evaluated the effect of the migration of regional trichloroethene (TCE) and perchlorate plumes on the water quality of the MVPC wells, based on the results of the model developed for Lockheed (HIS-Geotrans, 1997, 1998) and a one-dimensional groundwater solute transport model, TRANS1D (CSM, 1997), developed for the MVPC (Geraghty & Miller, 1999). As noted in the AFC, the MVPC model uses the same parameter values used in the Lockheed model. The Lockheed model predicts the regional movement of the plumes over time. The MVPC predicts the transport of TCE and perchlorate towards the proposed MVPC wells, assuming that TCE and perchlorate migrates into the lower zone.

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DATA REQUEST

79. Please provide staff with a copy of all available reports, descriptions and input and output files developed for the Lockheed model.
80. Please provide staff with a copy of the input and output files developed for the MVPC model, as well as description (text and/or figures) of the input for this analysis.
81. Please provide a listing of the common parameters used in the Lockheed and MVPC models, a discussion of how these parameters were developed and why they were selected.
82. Please provide values of hydraulic conductivity and storativity developed from the June 14, 1999 MVPC Well No. 1 aquifer test.
83. Although the MVPC modeling analysis evaluates the movement of contaminants toward the MVPC, the applicant does not evaluate the effect of increased pumping by the proposed well on the movement of the TCE and perchlorate plumes into the deep aquifer. Please provide staff with an analysis of the effect of project pumping on the migration of the contaminant plumes into the deep aquifer, both laterally and vertically. Please also include a copy of calculations, spreadsheets and/or modeling files for this analysis.

BACKGROUND

The AFC, Appendix K, provides an estimate of future regional groundwater production in the Bunker Hill Groundwater Basin.

DATA REQUEST

84. Please provide staff with a comparison of these predicted future production rates to the future production rates used in the future scenarios of the Lockheed model.

BACKGROUND

The AFC, Appendix K, notes that the Victoria Farms wells are no longer in use, owing to the detection of perchlorate in these wells.

DATA REQUEST

85. Please provide staff with an explanation of the criteria for the discontinuing use of the Victoria Farm wells, owing to contamination by the perchlorate and TCE plumes, how this criteria or other criteria is being used to determine discontinued use of other regional wells, and how elevated levels of TCE or perchlorate would effect the use of the project wells.

BACKGROUND

As described in the supplemental Appendix 6.14-B of the AFC, the Gage Canal Well No. 56-1 is expected to be effected by the perchlorate plume with concentrations

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above the current State action levels, given the current rates of pumping, because it is perforated in both the middle and lower-water bearing zones.

DATA REQUEST

86. Please provide staff with an analysis of the effect that project pumping would have on the rate of change in concentration of perchlorate in Gage Canal Well No. 56-1.

BACKGROUND

As described in the AFC, Appendix K, the applicant has developed an estimate of drawdown impact of pumping the on-site project wells based on the long-term aquifer tests. The AFC provides figures showing the predicted radial influence of the project wells within the lower water-bearing zone.

DATA REQUEST

87. Please provide staff with a description of the method and the calculations used to analyze the results of the aquifer tests and a description of the method and the calculations used to predict the radial influence of the proposed project pumping.
88. Please provide staff with an analysis of the radial influence of the project pumping on the middle water-bearing zone and an analysis influence of the project pumping on the vertical gradient between the middle and lower water-bearing zones.

BACKGROUND

As described in the supplemental Appendix 6.14-B of the AFC, the applicant proposes to periodically check the well drawdown impact of the project wells on local deep wells both before and after plant operations begin. As described in Appendix K of the AFC, the applicant has estimated that the effective drawdown of the project wells will be about 5 feet on the closest existing production wells. In evaluating this impact, the applicant concludes that 5 feet of drawdown is not significant enough to result in a detrimental effect on other adjacent pumping wells.

DATA REQUEST

89. Please provide staff with a monitoring plan that lists local wells to be monitored, timing relative to project start-up for the pre-project monitoring, and a time table indicating the frequency of monitoring after the plant begins operations.

**MOUNTAINVIEW POWER PLANT PROJECT
DATA REQUEST
(00-AFC-2)**

Technical Area: Traffic and Transportation

Author: James Fore

BACKGROUND

The AFC Section 6.5.1.1 Figure 6.5-2 Location of Signalized Intersections Along the Proposed Pipeline Route indicates the location of intersections to be impacted by construction, and Table 6.5-1 gives the road classification, design capacity, current average daily and peak traffic hour count, and level of service (LOS).

DATA REQUEST

In general the greatest capacity constraints occur at signalized intersections. To determine the effects and impact on traffic that plant and linear construction will have on the local and state roadway system, please provide the following information on the intersections that will be impacted by the project.

- 90. A table showing the current LOS, capacity and peak hour traffic.
- 91. A discussion of the impact that construction and/or operation will have on the impacted intersections.

BACKGROUND

The AFC discusses the linears (natural gas and water supply pipelines), but no information is given on the construction schedule and workforce required.

DATA REQUEST

Please provide the following information for the linears:

- 92. The construction schedule associated with each linear.
- 93. A monthly breakout of the construction manpower schedule for each linear.
- 94. A monthly schedule that indicates the truck deliveries of equipment, materials and supplies.
- 95. The area that will be used by the linear construction projects for workforce parking and the laydown of equipment and supplies.

BACKGROUND

AFC Page 2-78, the first paragraph states that "Most of the heavy equipment items will be transported by rail to the common shipping depot nearest to the site. Rail deliveries will be off-loaded and transported to the site by common carrier or heavy equipment haulers".

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DATA REQUEST

To determine the effects and impact that the transportation of heavy equipment will have on the local and state roadways, and traffic flow, please provide the following information.

96. The rail depot and location that the project expects to use.
97. The roadways to be used to transport the equipment to the facility.
98. The monthly schedule for the delivery of heavy equipment.

**MOUNTAINVIEW POWER PLANT PROJECT
DATA REQUESTS
(00-AFC-2)**

TECHNICAL AREA: Visual Resources

Author: Michael Clayton

BACKGROUND

The AFC (pp. 2-37 and 2-38) states that isolation valves will be installed between the two end points of the new natural gas and wastewater supply pipelines.

DATA REQUEST

99. If the isolation valves are to be above ground, please describe the valves' location, size, and visual characteristics.

BACKGROUND

The AFC (p.2-38) states that a new metering facility will be installed at the wastewater supply pipeline tie-in point.

DATA REQUEST

100. If the metering facility is to be above ground, please describe the facility's location, size, and visual characteristics.

BACKGROUND

Figure 6.6-1 in the AFC provides a project viewshed map. The northern boundary of the viewshed is placed north of the Santa Ana River and south of the former Air Force Base. Based on a field reconnaissance, it is apparent that the project would be intermittently visible north of the base along 3rd Street (particularly between Victoria and Lankershim) and also along portions of Paul Vilasenor Boulevard within the base.

DATA REQUEST

101. Please review the northern boundary of the viewshed map and provide a revised map as appropriate.

BACKGROUND

The AFC (p.6.6-7) states that the proposed natural gas pipeline will be approximately 17 miles long and will be laid within city streets except for the crossing of the Santa Ana River at Tippecanoe Avenue and potentially the railroad tracks on Mill Street between Pennsylvania Avenue and Mount Vernon Avenue. In both cases the pipeline would be hung from existing bridges.

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DATA REQUEST

102. Please provide the diameter of the proposed gas pipeline.
103. Please provide a photograph of the bridge location where the pipeline would be hung over the railroad tracks. Please provide a written description of the position of the pipeline on the bridge.
104. Please provide a photograph of the pipeline crossing of the Santa Ana River. If the crossing would be visible from the planned Santa Ana River Trail (SART), the photograph should be taken from the SART. Please provide a written description of the position of the pipeline on the bridge.

BACKGROUND

The AFC (p.6.6-7) states that the 12-inch diameter wastewater discharge pipeline would most likely be hung on an existing golf cart/foot bridge that crosses the Twin Creek Channel just north of the Santa Ana River. The AFC further states that the pipeline may be visible from the banks of the Twin Creek Channel.

DATA REQUEST

105. Please provide a photograph of the golf cart/foot bridge crossing. Please also provide a written description of the position of the pipeline on the bridge and the pipeline's visibility from the banks of the Twin Creek Channel and other locations on the golf course.

BACKGROUND

The AFC (p. 6.6-11) states that four Key Observation Points (KOPs) were selected to provide the basis for evaluation of project impacts by comparing the appearance of the project site before and after construction. In all cases the KOP setting photographs (and photosimulations) are presented at approximately a one-half "life-size" scale. The ramification is that the visual elements within the photograph (structures, trees, roads, vehicles, etc.) appear approximately one-half the size they would appear to an actual viewer standing at that viewpoint location. In order to accurately assess the probable visual impact that would occur at any key viewpoint location, it is essential that the photographs and simulations represent the actual view that would be experienced.

DATA REQUEST

106. Please provide five sets of 11" x 17" color reproductions of revised setting photographs and photosimulations at actual "life-size" scale for KOP's 1, 2, & 3.
107. In some cases, the change in image scale may warrant a re-evaluation of impact susceptibility and/or impact severity and significance. Please review the analytical conclusions and provide revised the text as appropriate.

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BACKGROUND

The AFC (p. 6.6-15) states that the distance from the golf course clubhouse (KOP 2) to the project site is greater than 0.45 miles. The AFC (p.6.6-24) also states that the proposed units 3 and 4 will be located in the middleground view at a distance of less than 0.45 miles from the golf course clubhouse. The AFC (p. 6.6-15) also states (for KOP 3) that the power plant (existing) can only be seen in the background and that the distance from KOP 3 to the project site is approximately 0.8 miles.

DATA REQUEST

108. Please explain the discrepancy in distances between KOP 2 and the project site.
109. Please define foreground, middleground, and background distance zones by mileage range as used in the AFC.

BACKGROUND

The AFC (p. 6.6-19) states that an estimated annual 500,000 bike trips could be expected along the Santa Ana River Trail (SART), as well as hundreds of equestrian and walking trips. The photosimulation presented in Figure 6.6-10 shows that the proposed power plant would be a prominent feature in foreground views from the SART. Westbound travelers in particular will have an unobstructed view of the proposed facility with moderately long duration of view.

DATA REQUEST

110. Since overall viewer exposure is typically based on project visibility, distance zone, numbers of viewers, and duration of view, please explain the basis for the low to moderate rating for viewer exposure along the SART as presented on page 6.6-19.

BACKGROUND

The inappropriate image scale (see Background statement for Data Request 9) presented in the photosimulation for KOP 4 (Figure 6.6-10) does not fully illustrate the visual impact that would occur to users of the SART. If the setting photograph and photosimulation at KOP 4 were presented at life-size scale, the proposed project would extend beyond the boundaries of the image frame. In order to encompass the proposed facilities within the image frame, the viewpoint (and viewer) would need to move substantially further west along the SART. However, in doing so, the existing Monier Roof Tile facility would move in front of the proposed facilities, obscuring views of the facilities from the SART. The resulting photosimulation would not adequately capture the reasonable worst case visual impact that would be experienced by eastbound users of the SART.

In order to better capture the visual impact that would be experienced by users of the SART, the location of KOP 4 should be moved to the east of the project site the

**MOUNTAINVIEW POWER PLANT PROJECT
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minimum distance necessary (estimated at about 800 to 1,000 feet) to bring the proposed project into the image frame with minimal foreground vegetation screening.

DATA REQUEST

111. Please revise the location of KOP 4, moving it to the east of the proposed project site, the minimum distance necessary to bring the proposed project into the image frame with minimal foreground vegetation screening as viewed by westbound users of the SART. Provide five sets of 11 x 17 photographs.
112. The change in the location of KOP 4 may warrant a re-evaluation of impact susceptibility and/or impact severity and significance. Please review the analytical conclusions and provide revised text as appropriate.

BACKGROUND

The AFC (p. 6.6-19) states that construction equipment and staging areas related to pipeline construction would be temporary in nature and that the pipeline routes follow existing roads in areas with low scenic quality. The AFC further concludes that visual impacts from pipeline construction are not expected to be significant.

DATA REQUEST

113. Given that much of the natural gas pipeline route would follow streets within residential areas, please describe the extent to which equipment, materials, and personnel would be visible along the route and the length of time that a typical construction spread would be visible to adjacent residences.
114. Please describe the landscape characteristics that result in a low rating for scenic quality along the pipeline routes.
115. Please provide at photographs that are representative of the landscape along the gas pipeline route, including staging areas.

BACKGROUND

Table 6.6-4 of the AFC provides the dimensions of the various power plant structures (existing and proposed). In order to gauge the accuracy of the photosimulations, staff needs to know the heights of the adjacent transmission structures.

DATA REQUEST

116. Please provide the heights of the adjacent 66kV, 115kV & 230kV transmission line structures.

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(00-AFC-2)**

BACKGROUND

The AFC (p. 6.6-20) states that units 3 and 4 will require nighttime lighting for operational safety and security.

DATA REQUEST

117. Please describe the lighting to be used on units 3 and 4 including type, location, intensity, and typical duration of use.
118. Please state whether the applicant would also commit to using timers, sensors, and/or switches to keep lights off when they are not needed.
119. Please specify for which types of lighting (task area, structure, etc.) various controls would be provided.

BACKGROUND

The discussion of visual impact for Key Observation Point 2 on page 6.6-26 of the AFC is lacking a conclusion of impact significance.

DATA REQUEST

120. Please provide a statement of impact significance for Key Observation Point 2.

BACKGROUND

The AFC (pp. 6.6-31 to 6.6-45) provides a discussion of visible plumes for the cooling tower structures associated with the proposed power plant. While some of the information presented in the AFC is useful for a visual impact analysis, a physical description of what the cooling tower plumes would look like within the viewshed is not presented. In addition, the AFC (p. 6.6-38) states incorrectly that the SACTI model does not correlate plume length with time of day. The SACTI model will individually correlate the length, height, and width (radius) of the plumes with the time of day; the model just does not correlate these dimensions with each other by the time of day.

DATA REQUEST

121. Please provide the following information regarding the cooling tower vapor plumes:
 - j. Quantified estimates of the expected maximum and average plume height (above the stack), length, width (diameter), and direction.
 - k. Quantified estimates of the expected frequency of occurrence and duration, specifying:
 - i) The number of hours that the expected maximum and average plumes will be visible, for each hour of the day per year;
 - ii) The total number of hours per year that the expected maximum and average plumes will be visible;

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- iii) The percentage of the total number of hours per year that the expected maximum and average plumes will be visible;
- iv) The number of daylight hours per year that the expected maximum and average plumes will be visible; and
- v) The percentage of daylight hours per year that the expected maximum and average plumes will be visible; and
- l. Please calculate the values requested in “b” above to eliminate periods when fog occurs.
- m. Please calculate the values requested in “b” above to eliminate periods when visibility will be reduced to less than specified distances (such as less than one mile and less than five miles).
- n. Provide the data, assumptions, and calculations used to derive the estimates, including the model used for a, b, c and d above.

BACKGROUND

The AFC does not address vapor plumes from the HRSG stacks.

DATA REQUEST

122. Please provide the following information regarding the HRSG stack plumes, specifying whether the calculations are for each stack or for both stacks. If the calculations are for each stack, please estimate the combined effect for both stacks).
- o. Please provide quantified estimates of the expected maximum and average height and width.
 - p. Please provide quantified estimates of the expected frequency of occurrence and duration, specifying:
 - i) The number of hours that the plume will be visible, for each hour of the day per year;
 - ii) The total number of hours per year that the plume will be visible;
 - iii) The percentage of the total number of hours per year that the plume will be visible;
 - iv) The number of daylight hours per year that the plume will be visible; and
 - v) The percentage of daylight hours per year that the plume will be visible.
 - q. Please calculate the values requested in “c” above to eliminate periods when fog occurs.
 - r. Please calculate the values requested in “c” above to eliminate periods when visibility will be reduced to less than specified distances (such as less than one mile and less than five miles).

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- s. Provide the data, assumptions, and calculations used to derive the estimates, including the model used for a, b, c and d above.

BACKGROUND

The AFC (p. 6.6-30) concludes that the project would not have a significant adverse impact on the proposed SART (KOP 4). However, to reduce the impacts of the project, the applicant proposes (p. 6.6-46) to work with the San Bernardino County Department of Community and Cultural Resources to develop a landscaping/grading plan to screen views of the proposed structures from the future SART.

DATA REQUEST

- 123. Please explain the steps and the specific actions that the applicant has taken or intends to take to work with the County to develop the landscaping/grading plan.

BACKGROUND

According to the AFC, the City of Redlands is in the process of annexing the proposed power plant site. The second data adequacy supplement dated April 2000 (p. 6.6-9d) states that the applicant will comply with the City of Redlands General Plan by working with the City to develop a development plan that complies with historic and scenic conservation requirements, preserves vegetation, and preserves existing historic and architectural views. The supplement also states that the applicant will work with the City of Redlands to ensure that the project's landscaping plan complies with the Redlands General Plan.

DATA REQUEST

- 124. Please explain the steps and the specific actions that the applicant has taken or intends to take to work with the City of Redlands to ensure that the project complies with the General Plan requirements discussed above.