

Memorandum

Date: March 21, 2008
 Telephone: (916) 654-4966

To: Jackalyne Pfannenstiel, Chairman
 James D. Boyd, Vice Chair
 Arthur H. Rosenfeld, Ph.D., Commissioner
 Jeffrey Byron, Commissioner
 Karen Douglas, Commissioner

From: California Energy Commission – Melissa Jones
 1516 Ninth Street
 Sacramento, CA 95814-5512
 Executive Director



DOCKET	
08-AFC-1	
DATE	MAR 21 2008
RECD.	MAR 21 2008

Subject: **AVENAL ENERGY, DATA ADEQUACY RECOMMENDATION (08-AFC-1)**

On February 21, 2008, Avenal Power Center, LLC (Avenal Power) filed an Application for Certification (AFC) for the Avenal Energy project (Avenal Energy), a combined-cycle electrical power plant facility in the City of Avenal, Kings County. Avenal Energy would be a 600 megawatt (MW) combined-cycle generating plant consisting of two natural gas-fired General Electric 7FA gas turbines with heat recovery steam generators (HRSG) and one General Electric steam turbine. Natural gas would be provided via a 2.5-mile, 20-inch underground pipeline interconnection to Pacific Gas and Electric's (PG&E's) natural gas pipeline transmission system at the Kettleman compressor station. The plant would use a dry cooling process to minimize water consumption. The City of Avenal would provide raw water for non-cooling uses, such as the plant's emission control system, to the proposed project from the city's turnout on the San Luis Canal portion of the California Aqueduct. Groundwater from three local wells would provide a back-up water source to the project via two separate pipelines, totaling less than 1.4 miles. The proposed project would use a zero liquid discharge system which would eliminate wastewater discharge. The facility would be connected to the PG&E transmission grid via a new 6.4-mile single-circuit 230 kV transmission line, traversing agricultural land to the Gates Substation in Fresno County.

Staff has completed its data adequacy review of the AFC and has determined that it does not meet all the requirements listed in Title 20, section 1704, and Division 2, Chapter 5, Appendix B of the California Code of Regulations for the 12-month process. Therefore, we recommend that the Energy Commission find the AFC inadequate and adopt the attached list of deficiencies. Of the 23 technical disciplines reviewed, we believe the information contained in the AFC is deficient in five areas which are: Air Quality, Cultural Resources, Socioeconomics, Transmission System Design, and Water Resources.

Attached is a summary table and data adequacy worksheets for all technical disciplines. The worksheets for the aforementioned sections identify the additional information that we believe is necessary to fulfill the AFC data adequacy requirements. At the Energy Commission's April 2, 2008 Business Meeting, I will recommend that the Commission adopt the list of deficiencies and not accept the AFC until the additional information specified in the data adequacy worksheets is supplied. If you have any questions, please call Christopher Meyer, staff's Project Manager, at (916) 653-1639.

Attachment

**Attachment A
 Overview of Energy Commission Staff's
 Data Adequacy Determination
 Avenal Energy
 08-AFC-1**

Technical Area	Attachment B Page No.	Adequate ?
AIR QUALITY	4	NO
ALTERNATIVES	11	YES
BIOLOGICAL RESOURCES	12	YES
CULTURAL RESOURCES	22	NO
EFFICIENCY	28	YES
FACILITY DESIGN.....	30	YES
GEOLOGICAL HAZARDS	33	YES
HAZARDOUS MATERIALS HANDLING	35	YES
LAND USE	38	YES
NOISE	42	YES
PALEONTOLOGICAL RESOURCES	46	YES
PROJECT OVERVIEW	49	YES
PUBLIC HEALTH.....	53	YES
RELIABILITY	56	YES
SOCIOECONOMICS	58	NO
SOILS.....	64	YES
TRAFFIC AND TRANSPORTATION	66	YES
TRANS LINE SAFETY & NUISANCE.....	70	YES
TRANSMISSION SYSTEM DESIGN.....	72	NO
VISUAL RESOURCES.....	75	YES
WASTE MANAGEMENT	80	YES
WATER RESOURCES.....	83	NO
WORKER SAFETY	92	YES

ATTACHMENT B

**ENERGY COMMISSION STAFF'S
List of Data Inadequacies**

**Avenal Energy
08-AFC-1**

March 21, 2008

Adequacy Issue: Adequate _____ Inadequate X DATA ADEQUACY WORKSHEET
 Technical Area: Air Quality Project: Avenal Energy
 Project Manager: Christopher Meyer Docket: 08-AFC-1

Revision No. 0 Date March 17, 2008
 Technical Staff: Brewster Birdsall
 Technical Senior: Keith Golden

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 6.2.1 pp. 6.2-2 to 6.2-4 Section 6.2.5 pp. 6.2-39 to 70 Section 6.2-3.3; p. 6-2-3.2 Section 6.2.8 p. 6.2-85	Yes	
Appendix B (g) (8) (A)	The information necessary for the air pollution control district where the project is located to complete a Determination of Compliance.	Not provided	No	The letter of application completeness, or comparable communication, from the San Joaquin Valley Air Pollution Control District is needed. The application was filed in February of 2008. SJVAPCD Rule 2201, Section 5.8.3 requires the District to notify the CEC of completeness within 20 days of receipt of the AFC.
Appendix B (g) (8) (B)	The heating value and chemical characteristics of the proposed fuels, the stack height and diameter, the exhaust velocity and temperature, the heat rate and the expected capacity factor of the proposed facility.	Table 2.3-3, p. 2-33 Table 6.2-17, 18, and 22 pp. 6.2-41 to 44 Table 6.2-2.2 and 2.4 Section 2.3.16, p. 2-43	Yes	
Appendix B (g) (8) (C)	A description of the control technologies proposed to limit the emission of criteria pollutants.	Section 2.3.9 pp. 2-22 to 24 Section 6.2.6.3 pp. 6.2-73 to 76 Appendix 6.2-4	Yes	

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Appendix B (g) (8) (E)	The emission rates of criteria pollutants and greenhouse gases (CO ₂ , CH ₄ , N ₂ O, and SF ₆) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all on-site secondary emission sources.	Table 6.2-19, 20, and 21 Table 6.2-41 p. 6.2-84 to 85	Yes	
Appendix B (g) (8) (F)(i)	A description of typical operational modes, and start-up and shutdown modes for the proposed project, including the estimated frequency of occurrence and duration of each mode, and estimated emission rate for each criteria pollutant during each mode.	Table 6.2-19, 20, and 21 Table 6.2-23 and 24 p. 6.2-45 to 46 Appendix 6.2-1	Yes	
Appendix B (g) (8) (F)(ii)	A description of the project's planned initial commissioning phase, which is the phase between the first firing of emissions sources and the commercial operations date, including the types and durations of equipment tests, criteria pollutant emissions, and monitoring techniques to be used during such tests.	Section 6.2.5.1.1 p. 6.2-47 p. 6.2-60 pp. 6.2-64 to 65	Yes	
Appendix B (g) (8) (G)	The ambient concentrations of all criteria pollutants for the previous three years as measured at the three Air Resources Board certified monitoring stations located closest to the project site, and an analysis of whether this data is representative of conditions at the project site. The applicant may substitute an explanation as to why information from one, two, or all stations is either not available or unnecessary.	Section 6.2.3 Table 6.2-2 to 9 Figure 6.2-6 to 16 pp. 6.2-7 to 15	Yes	

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Appendix B (g) (8) (H)	One year of meteorological data collected from either the Federal Aviation Administration Class 1 station nearest to the project or from the project site, or meteorological data approved by the California Air Resources Board or the local air pollution control district.	Appendix 6.2-2 On CD	Yes	
Appendix B (g) (8) (H) (i)	If the data is collected from the project site, the applicant shall demonstrate compliance with the requirements of the U.S. Environmental Protection Agency document entitled "On-Site Meteorological Program Guidance for Regulatory Modeling Applications" (EPA - 450/4-87-013 (August 1995)), which is incorporated by reference in its entirety.	Appendix 6.2-2 On CD	Yes	
Appendix B (g) (8) (H) (ii)	The data shall include quarterly wind tables and wind roses, ambient temperatures, relative humidity, stability and mixing heights, upper atmospheric air data, and an analysis of whether this data is representative of conditions at the project site.	Figure 6.2-5a through 5y Appendix 6.2-2 On CD	Yes	
Appendix B (g) (8) (I)	An evaluation of the project's direct and cumulative air quality impacts, consisting of the following:	See below		

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Appendix B (g) (8) (I) (i)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant impacts of project construction activities on ambient air quality conditions, including fugitive dust (PM ₁₀) emissions from grading, excavation and site disturbance, as well as the combustion emissions [nitrogen oxides (NO _x), sulfur dioxide (SO ₂), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM ₁₀) and particulate matter less than 2.5 microns in diameter (PM _{2.5})] from construction-related equipment;	Section 6.2.5.3 Table 6.2-35 p. 6.2-70 Appendix 6.2-3 Table 6.2-3.11 and 3.12 On CD	Yes	
Appendix B (g) (8) (I) (ii)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant (NO _x , SO ₂ , CO, PM ₁₀ , and PM _{2.5}) impacts on ambient air quality conditions of the project during typical (normal) operation, and during shutdown and startup modes of operation. Identify and include in the modeling of each operating mode the estimated maximum emissions rates and the assumed meteorological conditions;	Section 6.2.5.1.2 Table 6.2-27 and 31 pp. 6.2-63 to 66 Appendix 6.2-2 Table 6.2-2.4 and 2.5 On CD	Yes	

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Appendix B (g) (8) (I) (iii)	A protocol for a cumulative air quality modeling impacts analysis of the project's typical operating mode in combination with other stationary emissions sources within a six mile radius which have received construction permits but are not yet operational, or are in the permitting process. The cumulative inert pollutant impact analysis should assess whether estimated emissions concentrations will cause or contribute to a violation of any ambient air quality standard; and	Appendix 6.2-6	Yes	
Appendix B (g) (8) (I) (iv)	An air dispersion modeling analysis of the impacts of the initial commissioning phase emissions on state and federal ambient air quality standards for NO _x , SO ₂ , CO, PM ₁₀ , and PM _{2.5} .	Table 6.2-29 p. 6.2-65 Table 6.2-1.9 and 1.10 Table 6.2-2.7 On CD	Yes	
Appendix B (g) (8) (J)	If an emission offset strategy is proposed to mitigate the project's impacts under subsection (g)(1), provide the following information:	See below		
Appendix B (g) (8) (J) (i)	The quantity of offsets or emission reductions that are needed to satisfy air permitting requirements of local permitting agencies (such as the air district), state and federal oversight air agencies, and the California Energy Commission. Identify by criteria air pollutant, and if appropriate, greenhouse gas; and	Table 6.2-38 and 39 pp. 6.2-76 to 78 Appendix 6.2-5	Yes	
Appendix B (g) (8) (J) (ii)	Potential offset sources, including location, and quantity of emission reductions;	Appendix 6.2-5	Yes	

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Project Manager: Christopher Meyer Docket: 08-AFC-1

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Appendix B (g) (8) (K)	A detailed description of the mitigation, if any, which an applicant may propose, for all projects impacts from criteria pollutants that currently exceed state or federal ambient air quality standards, but are not subject to offset requirements under the district's new source review rule.	Section 6.2.8 p. 6.2-85 Section 6.2-3.3; p. 6-2-3.2	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 6.2.4.1 pp.6.2-17 to 34 Table 6.2-15 pp. 6.2-35 to 38 Section 6.2.6 pp. 6.2-71 to 81	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 6.2.4.1 pp.6.2-17 to 34 Table 6.2-15 pp. 6.2-35 to 38 Section 6.2.6 pp. 6.2-71 to 81	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 6.2-10 p. 6.2-17	Yes	

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Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Figure 3.0-1 Table 6.2-15 pp. 6.2-35 to 38	Yes	
Appendix B (g) (8) (E)	The emission rates of criteria pollutants and greenhouse gases (CO ₂ , CH ₄ , N ₂ O, and SF ₆) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all on-site secondary emission sources.	Table 6.2-19, 20, and 21 Table 6.2-41 pp. 6.2-84 to 85	Yes	

Adequacy Issue: Adequate Inadequate

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Technical Area: Alternatives

Project: Avenal Energy

Technical Staff: Christopher Meyer

Project Manager: Christopher Meyer

Docket: 08-AFC-1

Technical Senior: Robert Worl

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Appendix B (b) (1) (D)	A description of how the site and related facilities were selected and the consideration given to engineering constraints, site geology, environmental impacts, water, waste and fuel constraints, electric transmission constraints, and any other factors considered by the applicant.	Section 5, pp. 5-1 thru 5-5	Yes	
Appendix B (f) (1)	A discussion of the range of reasonable alternatives to the project, or to the location of the project, including the no project alternative, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and an evaluation of the comparative merits of the alternatives. In accordance with Public Resources Code section 25540.6(b), a discussion of the applicant's site selection criteria, any alternative sites considered for the project, and the reasons why the applicant chose the proposed site.	Section 5, pp. 5-2 thru 5-21	Yes	
Appendix B (f) (2)	An evaluation of the comparative engineering, economic, and environmental merits of the alternatives discussed in subsection (f)(1).	Section 5, pp. 5-3, 5-4, and 5-21	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Biological Resources
 Project Manager: Christopher Meyer

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 Technical Senior: Rick York

Project: Avenal Energy
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Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Existing site conditions: Section 6.6.1 pp. 6.6-1 to 6.6-2 Direct, indirect, and cumulative impacts: Section 6.6.2 pp. 6.6-28 to 6.6-42 Mitigation measures: Section 6.6.2.3 pp. 6.6-37 to 6.6-38 Section 6.6.2.5 pp. 6.6-41 to 6.6-42 Section 6.6.3 pp. 6.6-42 to 6.6-4 Monitoring plans: Section 6.6.2.5 pp. 6.6-41 to 6.6-42	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	
Appendix B (g) (13) (A)	A regional overview and discussion of terrestrial and aquatic biological resources, with particular attention to sensitive biological resources within ten (10) miles of the project. Include a map at a scale of 1:100,000 (or other suitable scale) showing sensitive biological resource location(s) in relation to the project site and related facilities and any boundaries of a local Habitat Conservation Plan or similar open space land use plan or designation. Sensitive biological resources include the following:	Regional overview: Section 6.6.1.1 pp. 6.6-2 to 6.6-3 Regional vicinity maps: Figures 6.6-1, 6.6-2, and 6.6-5	<p>Yes</p> <p>Yes</p>	
Appendix B (g) (13) (A) (i)	species listed under state or federal Endangered Species Acts;	Federal and state Endangered Species: Table 6.6-1 pp. 6.6-7 to 6.6-13 Section 6.6.1.3.2 pp. 6.6-5 to 6.6-18	<p>Yes</p>	

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Appendix B (g) (13) (A) (ii)	resources defined in sections 1702(q) and (v) of Title 20 of the California Code of Regulations;	Areas of critical concern and species of special concern: Table 6.6-1 pp. 6.6-7 to 6.6-13 Section 6.6.1.3.2 pp. 6.6-5 to 6.6-18	Yes	
Appendix B (g) (13) (A) (iii)	species identified as state Fully Protected;	State Fully Protected species: Table 6.6-1 pp. 6.6-7 to 6.6-13	Yes	
Appendix B (g) (13) (A) (iv)	species covered by Migratory Bird Treaty Act;	Migratory Bird Act species: Table 6.6-3 pp. 6.6-44 to 6.6-46	Yes	
Appendix B (g) (13) (A) (v)	species and habitats identified by local, state, and federal agencies as needing protection, including but not limited to those identified by the California Natural Diversity Database, or where applicable, in Local Coastal Programs or in relevant decisions of the California Coastal Commission; and	Species and habitats identified in the California Natural Diversity Database: Table 6.6-1 pp. 6.6-7 to 6.6-13 Table 6.6-2 pp. 6.6-22 to 6.6-23	Yes	
Appendix B (g) (13) (A) (vi)	fish and wildlife species that have commercial and/or recreational value.	Fish and wildlife of commercial or recreational value: Not applicable	N/A	
Appendix B (g) (13) (B)	Include a list of the species actually observed and those with a potential to occur within 1 mile of the project site and 1,000 feet from the outer edge of linear facility corridors. Maps or aerial photographs shall include the following:	List of species observed: Table 6.6-1 pp. 6.6-7 to 6.6-13 Table 6.6-2 pp. 6.6-22 to 6.6-23	Yes	

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Appendix B (g) (13) (C) (iii)	If cooling water is taken directly from or discharged to a surface water feature source, include a description of the intake structure, screens, water volume, intake velocity hydraulic zone field of influence, and the thermal plume dispersion area as depicted in response to B(ii) above. Describe the thermal plume size and dispersion under high and low tides, and in response to local currents and seasonal changes. Provide a discussion of the aquatic habitats, biological resources, and critical life stages found in these affected waters. For repower projects that anticipate no change in cooling water flow, this information shall be provided in the form of the most recent federal Clean Water Act 316(a) and (b) studies of entrainment and impingement impacts that has been completed within the last five (5) years. For new projects or repower projects proposing to use once-through cooling and anticipating an increase in cooling water flow, provide a complete impingement and entrainment analysis per guidance in (D)(ii), below.	Intake structure characteristics: Not applicable Thermal plume description: Not applicable Aquatic habitat and biological resources affected: Not applicable Impingement and entrainment analysis: Not applicable	N/A N/A N/A N/A	
Appendix B (g) (13) (D)	A description and results of all field studies and seasonal surveys used to provide biological baseline information about the project site and associated facilities. Include copies of the California Natural Diversity Database records and field survey forms completed by the applicant's biologist(s). Identify the date(s) the surveys were completed, methods used to complete the surveys, and the name(s) and qualifications of the biologists conducting the surveys. Include:	Description of field studies: Section 6.6.1.4.1 pp. 6.6-19 to 6.6-21 Copies of CNDDB records and field survey forms: Appendices 6.6-1, 6.6-2, 6.6-3, 6.6-4, 6.6-5 Qualifications of biologists: Appendices 6.6-1, 6.6-2, 6.6-3, 6.6-4, 6.6-5	Yes Yes Yes	

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Appendix B (g) (13) (D) (i)	Current biological resources surveys conducted using appropriate field survey protocols during the appropriate season(s). State and federal agencies with jurisdiction shall be consulted for field survey protocol guidance prior to surveys if a protocol exists;	Current biological surveys: Section 6.6.1 pp. 6.6-1 to 6.6-2	Yes	
Appendix B (g) (13) (D) (ii)	If cooling water is proposed to be taken directly from or discharged to a surface water feature source, seasonal aquatic resource studies and surveys shall be conducted. Aquatic resource survey data shall include, but is not limited to, fish trawls, ichthyoplankton and benthic sampling, and related temperature and water quality samples. For new projects or repower projects anticipating a change in cooling water flows, sampling protocols shall be provided to the Energy Commission staff for review and concurrence prior to the start of sampling. For repower projects not anticipating a change in cooling water flows, this information shall be provided in the form of the most recent federal Clean Water Act 316(b) impingement and entrainment impact study completed within five (5) years of the AFC filing date; and	Aquatic resource studies and surveys: Not applicable Aquatic resource survey data or impingement and entrainment impact study: Not applicable	N/A N/A	
Appendix B (g) (13) (D) (iii)	If the project or any related facilities could impact a jurisdictional or non-jurisdictional wetland, provide completed Army Corps of Engineers wetland delineation forms and/or determination of wetland status pursuant to Coastal Act requirements, name(s) and qualifications of biologist(s) completing the delineation, the results of the delineation and a table showing wetland acreage amounts to be impacted.	Impacts to jurisdictional or non-jurisdictional wetlands: Not applicable	N/A	
Appendix B (g) (13) (E)	Impacts discussion of the following:			

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Appendix B (g) (13) (E) (i)	all impacts (direct, indirect, and cumulative) to biological resources from project site preparation, construction activities, plant operation, maintenance, and closure. Discussion shall also address sensitive species habitat impacts from cooling tower drift and air emissions;	Project site impacts: Section 6.6.2 pp. 6.6-28 to 6.6-42 Air emission impacts on sensitive species: Section 6.6.2.3.1 p. 6.6-35 Section 6.6.2.5 p. 6.6-41	Yes Yes	
Appendix B (g) (13) (E) (ii)	facilities that propose to take water directly from, and/or discharge water to surface water features, daytime and nighttime impacts from the intake and discharge of water during operation, water velocity at the intake screen, the intake field of influence, impingement, entrainment, and thermal discharge. Provide a discussion of the extent of the thermal plume, effluent chemicals, oxygen saturation, intake pump operations, and the volume and rate of cooling water flow at the intake and discharge location; and	Intake impacts: Not applicable Thermal plume impacts: Not applicable	N/A N/A	
Appendix B (g) (13) (E) (iii)	Methods to control biofouling and chemical concentrations, and temperatures that are currently being discharged or will be discharged to receiving waters.	Biofouling and chemical concentration controls: Not applicable Discharge temperatures: Not applicable	N/A N/A	
Appendix B (g) (13) (F)	A discussion of all feasible mitigation measures including, but not limited to the following:			
Appendix B (g) (13) (F) (i)	All measures proposed to avoid and/or reduce adverse impacts to biological resources;.	Avoidance and minimization: Section 6.6.3 pp. 6.6-42 to 6.6-43	Yes	

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (F) (ii)	All off-site habitat mitigation and habitat improvement or compensation, and an identification of contacts for compensation habitat and management;	Habitat mitigation: Section 6.6.2.3 and Section 6.6.2.5 pp. 6.6-37, 6.6-38, Section 6.6.3 pp. 6.6-42 to 6.6-43 Contacts for compensation habitat: Section 6.6.2.3 and Section 6.6.2.5 pp. 6.6-37, 6.6-38,	Yes Yes	
Appendix B (g) (13) (F) (iii)	Design features to better disperse or eliminate a thermal discharge;	Design features to eliminate thermal discharge: Not applicable	N/A	
Appendix B (g) (13) (F) (iv)	All measures proposed to avoid or minimize adverse impacts of cooling water intake. This shall include a Best Technology Available (BTA) discussion. If BTA is not being proposed, the rationale for not selecting BTA must be provided; and	Measures to minimize impacts of cooling water intake: Not applicable	N/A	
Appendix B (g) (13) (F) (v)	Educational programs to enhance employee awareness during construction and operation to protect biological resources.	Employee biological resource awareness training: Section 6.6.3 pp. 6.6-42 to 6.6-43	N/A	
Appendix B (g) (13) (G)	A discussion of compliance and monitoring programs to ensure the effectiveness of impact avoidance and mitigation measures incorporated into the project.	Monitoring compliance effectiveness: Section 6.6.2.2.1 pp. 6.6-33 Section 6.6.2.3.1 pp. 6.6-38 and 6.6-39	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Biological Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Laurel Cordonnier
 Technical Senior: Rick York

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (H)	Submit copies of any preliminary correspondence between the project applicant and state and federal resource agencies regarding whether federal or state permits from other agencies such as the U. S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Game (CDFG), and the Regional Water Quality Control Board (RWCB) will be required for the proposed project.	Contact with state and federal agencies regarding permits: Table 6.6-4 p. 6.6-47	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table identifying applicable biological resources laws, ordinances, regulations, and standards: Table 6.6-3 pp. 6.6-44 to 6.6-46	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Tables identifying agencies with jurisdiction: Table 6.6-3 pp. 6.6-44 to 6.6-46	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Agency contact information: Table 6.6-4 pp. 6.6-47	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: **Biological Resources**

Project: Avenal Energy

Technical Staff: Laurel Cordonnier

Project Manager: Christopher Meyer

Docket: 08-AFC-1

Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Permit schedule: Section 3.0 pp. 3-1 Figure 3.0-1	Yes	

Adequacy Issue: Adequate _____ Inadequate X

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: Cultural Resources

Project: Avenal Energy

Technical Staff: Beverly Bastian

Project Manager: Christopher Meyer

Docket: 08-AFC-1

Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	existing site conditions: Vol. 1, pp. 6.7-1–6.7-2 impacts due to project: Vol. 1, p. 6.7-13–6.7-14 mitigation measures for known impacts effectiveness of the proposed measures any monitoring plans proposed to verify the effectiveness of the mitigation	Yes Yes No N/A N/A	Applicant needs to incorporate mitigation measures for impacts to the integrity of the setting of new historic architectural resources, if any are identified in the required new historic architecture survey (see item (g)(2)(C) below). Response to this item will also satisfy the requirement for item (g)(2)(E)(i).
Appendix B (g) (2) (A)	A summary of the ethnology, prehistory, and history of the region with emphasis on the area within no more than a 5-mile radius of the project location.	summary of the ethnology, prehistory, and history: Vol. 1, pp. 6.7-6–6.7-10; Vol. 2, App. 6.7-1, pt. 1, pp. 9–12	Yes	

Adequacy Issue: Adequate _____ Inadequate X

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: Cultural Resources

Project: Avenal Energy

Technical Staff: Beverly Bastian

Project Manager: Christopher Meyer

Docket: 08-AFC-1

Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (B)	<p>The results of a literature search to identify cultural resources within an area not less than a 1-mile radius around the project site and not less than one-quarter (0.25) mile on each side of the linear facilities. Identify any cultural resources listed pursuant to ordinance by a city or county, or recognized by any local historical or archaeological society or museum. Literature searches to identify the above cultural resources must be completed by, or under the direction of, individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.</p> <p>Copies of California Department of Parks and Recreation (DPR) 523 forms (Title 14 CCR §4853) shall be provided for all cultural resources (ethnographic, architectural, historical, and archaeological) identified in the literature search as being 45 years or older or of exceptional importance as defined in the National Register Bulletin Guidelines, (36CFR60.4(g)). A copy of the USGS 7.5' quadrangle map of the literature search area delineating the areas of all past surveys and noting the California Historical Resources Information System (CHRIS) identifying numbers shall be provided. Copies also shall be provided of all technical reports whose survey coverage is wholly or partly within .25 mile of the area surveyed for the project under Section (g)(2)(C), or which report on any archaeological excavations or architectural surveys within the literature search area.</p>	<p>literature searches:</p> <p>cultural resources listed under a city or county ordinance:</p> <p>cultural resources recognized by local societies:</p> <p>names/quals for lit searchers/directors:</p> <p>DPR 523s for known resources:</p> <p>map of lit search area with past surveys and CHRIS #s:</p> <p>CHRIS reports:</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>	<p>Applicant needs to request a California Historical Information System records search, inclusive of an area with a radius of one mile around the project site and 0.25 mile on each side of the linear facilities, and incorporate the results in the technical report and the AFC.</p> <p>Applicant needs to contact Kings County and the City of Avenal to identify cultural resources listed per local ordinance that are located within a one-mile radius of the proposed plant site, and incorporate the results in the technical report and the AFC.</p> <p>Applicant needs to contact local historical and archaeological societies to identify recognized local cultural resources that are located within a one-mile radius of the proposed plant site, and incorporate the results in the technical report and the AFC.</p> <p>Applicant needs to add the name(s) and qualifications of person(s) doing the new literature search to the technical report.</p> <p>If the new literature search reveals the presence of known cultural resources, applicant needs to provide, under confidential cover, copies of DPR 523 forms for the additional resources.</p> <p>Applicant needs to provide a copy of the USGS 7.5' quadrangle map(s) of the new literature search area delineating the coverage of past cultural resources surveys and labeled with the CHRIS survey report numbers, if any.</p> <p>Applicant needs to provide copies, under confidential cover, of the technical reports, obtained from the CHRIS, reporting on any archaeological excavations or architectural surveys within the new literature search area.</p>

Adequacy Issue: Adequate _____ Inadequate X

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: Cultural Resources

Project: Avenal Energy

Technical Staff: Beverly Bastian

Project Manager: Christopher Meyer

Docket: 08-AFC-1

Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C)	<p>The results of new surveys or surveys less than 5 years old shall be provided if survey records of the area potentially affected by the project are more than five (5) years old. Surveys to identify new cultural resources must be completed by (or under the direction of) individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.</p> <p>New pedestrian archaeological surveys shall be conducted inclusive of the project site and project linear facility routes, extending to no less than 200' around the project site, substations and staging areas, and to no less than 50' to either side of the right-of-way of project linear facility routes. New historic architecture field surveys in rural areas shall be conducted inclusive of the project site and the project linear facility routes, extending no less than .5 mile out from the proposed plant site and from the routes of all above-ground linear facilities. New historic architecture field surveys in urban and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory, and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.</p> <p>A technical report of the results of the new surveys, conforming to the Archaeological Resource Management Report format (CA Office of Historic Preservation Feb 1990), which is incorporated by reference, shall be separately provided and submitted (under confidential cover if archaeological site locations are included).</p>	<p>names/quals for archaeological surveyors or directors:</p> <p>names/quals for historical architecture surveyors or directors</p> <p>survey coverage, archaeology: Vol. 2, App. 6.7-1, pt. 3, fig. 2.2007</p> <p>survey coverage, architecture:</p> <p>tech report for new archaeological survey: Vol. 2, App. 6.7-1, pts. 2 and 3</p> <p>tech report for new historical architecture survey:</p>	<p>Yes</p> <p>No</p> <p>Yes</p> <p>No</p> <p>Yes</p> <p>No</p>	<p>Applicant needs to provide the name(s) and qualifications of person(s) doing the new historic architecture survey (see below).</p> <p>Applicant needs to have a qualified architectural historian survey the area 0.5 mile out from the proposed plant site and from the 2006 proposed transmission line route for structures and districts that appear older than 45 years.</p> <p>Applicant needs to have a qualified architectural historian write a technical report on the methods and findings from the new historic architecture survey and provide this report to the Energy Commission.</p>

Adequacy Issue: Adequate _____ Inadequate X

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: Cultural Resources

Project: Avenal Energy

Technical Staff: Beverly Bastian

Project Manager: Christopher Meyer

Docket: 08-AFC-1

Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C) cont.	Information included in the technical report shall also be provided in the Application for Certification, except that confidential information (archaeological sites or areas of religious significance) shall be submitted under a request for confidentiality pursuant to Title 20, California Code of Regulations, § 2501 et seq. At a minimum, the technical report shall include the following:	AFC includes tech report data, unless confidential: Vol. 1, section 6.7	No	Applicant needs to incorporate into AFC Section 6.7 non-confidential information on any new archaeological and/or architectural resources identified from the new literature search and the new historic architecture survey.
Appendix B (g) (2) (C) (i)	The summary from Appendix B (g)(2)(A) and the literature search results from Appendix B (g)(2)(B);	summary: Vol. 2, App. 6.7-1, pt. 1, pp. 9–12 lit-search results:	Yes No	Applicant needs to update the literature search results in the AFC to include the new literature search.
Appendix B (g) (2) (C) (ii)	The survey procedures and methodology used to identify cultural resources and a discussion of the cultural resources identified by the survey;	archaeological methodology: Vol. 2, App. 6.7-1, pt. 2, pp. 4–5 historical architecture methodology:	Yes No	Applicant needs to have a qualified architectural historian add to Section 6.7 of the AFC the methods and findings from the new historic architecture survey.
Appendix B (g) (2) (C) (iii)	Copies of all new and updated DPR 523(A) forms. If a cultural resource may be impacted by the project, also include the appropriate DPR 523 detail form for each such resource;	archaeology forms: architecture forms:	N/A No	Applicant needs to provide copies of DPR 523 forms for any new historic architectural resources identified in the new historic architecture survey.
Appendix B (g) (2) (C) (iv)	A map at a scale of 1:24,000 U.S. Geological Survey quadrangle depicting the locations of all previously known and newly identified cultural resources compiled through the research required by Appendix B (g)(2)(B) and Appendix B (g)(2)(C) (ii); and	archaeology and architecture map:	No	Applicant needs to provide a copy of the USGS 7.5' quadrangle map(s) of the literature search area, under confidential cover, depicting the locations of all known archaeological and architectural resources identified in the new literature search and all new architectural resources identified in the new historic architecture survey.

Adequacy Issue: Adequate _____ Inadequate X

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: Cultural Resources

Project: Avenal Energy

Technical Staff: Beverly Bastian

Project Manager: Christopher Meyer

Docket: 08-AFC-1

Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C) (v)	The names and qualifications of the cultural resources specialists who contributed to and were responsible for literature searches, surveys, and preparation of the technical report.	names/quals for archaeologists: names/quals for architectural historians:	No No	Applicant needs to add the name(s) and qualifications of person(s) doing the new literature search. Applicant needs to add the name(s) and qualifications of person(s) doing the new literature search and/or the new historic architecture survey.
Appendix B (g) (2) (D)	Provide a copy of your request to the Native American Heritage Commission (NAHC) for information on Native American sacred sites and lists of Native Americans interested in the project vicinity, and copies of any correspondence received from the NAHC. Notify the Native Americans on the NAHC list about the project, including a project description and map. Provide a copy of all correspondence sent to Native American individuals and groups listed by the NAHC and copies of all responses. Provide a written summary of any oral responses.	NAHC request: NAHC response: Vol. 2, App. 6.7-1, pt. 2, Att. A letters sent to Native Americans: Vol. 2, App. 6.7-1, pt. 2, Att. B responses from Native Americans: Vol. 2, App. 6.7-1, pt. 3, App. 6.7-2 summary of oral responses from Native Americans:	No Yes Yes No N/A	Applicant needs to provide a copy of the letter sent to the NAHC requesting information. An email exchange with one Native American was provided, but the report was unclear if this was the only response received. Applicant needs to report in AFC Section 6.7 all responses from Native Americans and provide a conclusion on information received from these sources.
Appendix B (g) (2) (E)	Include in the discussion of proposed mitigation measures required by subdivision (g)(1):	-	-	-
Appendix B (g) (2) (E) (i)	A discussion of measures proposed to mitigate project impacts to known cultural resources;	mitigation measures for known impacts:	No	Applicant needs to incorporate mitigation measures for impacts to the integrity of the setting of new historic architectural resources, if any are identified in the required new historic architecture survey.
Appendix B (g) (2) (E) (ii)	A set of contingency measures proposed to mitigate potential impacts to previously unknown cultural resources and any unanticipated impacts to known cultural resources; and	contingency mitigation measures: Vol. 1, pp. 6.7-13–6.7-14 Vol. 2, App. 6.7-1, pt. 3, p. 3	Yes	

Adequacy Issue: Adequate _____ Inadequate X

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: Cultural Resources

Project: Avenal Energy

Technical Staff: Beverly Bastian

Project Manager: Christopher Meyer

Docket: 08-AFC-1

Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (E) (iii)	Educational programs to enhance employee awareness during construction and operation to protect cultural resources.	worker education: Vol. 1, 6.7-13; Vol. 2, App. 6.7-1, pt. 3, p. 3	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	tables identifying applicable LORS: Vol. 1, Table 6.7-1 explicitly referenced pages: Vol. 1, Table 6.7-1 discussion of applicability of LORS: Vol. 1, Table p. 6.7-1	Yes Yes Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	tables identifying agencies: Vol. 1, Table p. 6.7-1	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	official within each agency who will serve as a contact person for the agency: Vol. 1, Table p. 6.7-1	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	schedule indicating when outside permits will be obtained: Vol. 1, p. 6.7-15	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Efficiency
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Erin Bright
 Technical Senior: Steve Baker

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	§§1.1, 1.5.2, 1.5.4, 1.6, 2.2.3.1, 2.3.2, 2.3.5.1, 2.3.6.1, 2.3.6.4, 2.3.14, 2.3.16; Fig 2.3-1, Fig 2.3-2; App 2.6	Yes	
Appendix B (h) (4) (A)	Heat and mass balance diagrams for design conditions for each mode of operation.	App. 2.6	Yes	
Appendix B (h) (4) (B)	Annual fuel consumption in BTUs for each mode of operation, including hot restarts and cold starts.	§2.3.16; App 2.6	Yes	
Appendix B (h) (4) (C)	Annual net electrical energy produced in MWh for each mode of operation including starts and shutdowns.	§2.3.16; App 2.6	Yes	
Appendix B (h) (4) (D)	Number of hours the plant will be operated in each design condition in each year.	§§1.6, 2.3.16; App 2.6	Yes	
Appendix B (h) (4) (E)	If the project will be a cogeneration facility, calculations showing compliance with applicable efficiency and operating standards.	N/A	N/A	
Appendix B (h) (4) (F)	A discussion of alternative generating technologies available for the project, including the projected efficiency of each, and an explanation why the chosen equipment was selected over these alternatives.	§§5.4, 5.6	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Efficiency
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Erin Bright
 Technical Senior: Steve Baker

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	N/A	N/A	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	N/A	N/A	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	N/A	N/A	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	N/A	N/A	

Adequacy Issue: Adequate Inadequate
 Technical Area: Facility Design
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Steve Baker
 Technical Senior: Steve Baker

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (A)	A description of the site conditions and investigations or studies conducted to determine the site conditions used as the basis for developing design criteria. The descriptions shall include, but not be limited to, seismic and other geologic hazards, adverse conditions that could affect the project's foundation, adverse meteorological and climatic conditions, and flooding hazards, if applicable.	§§ 1.1, 1.4, 1.5, 1.5.2, 1.5.3, 1.5.4, 1.5.5, 1.5.6, 1.8.2, 2.0, 2.1.1, 2.3.3, 2.3.6.1, 2.3.6.2, 2.3.6.3, 2.3.6.4, 2.3.7.1, 2.3.7.3, 2.3.7.7, 2.3.9.1, 2.3.9.2, 2.3.10, 2.3.11.2, 2.3.11.5, 2.3.13, 2.3.14.1, 2.3.14.2, 2.3.15.8, 2.3.17, 2.3.18, 2.4, 2.4.3, 2.5.1, 6.3.1.4, 6.3.1.5, 6.3.1.6, 6.3.2.4, 6.3.5; Appendices 2-1, 2-2, 2-3, 2-4, 2-5, 2-7, 6.5-3; Tables 1.5-1, 2.5-1, 2.5-2, 2.5-5, 6.3-1, 6.3-2, 6.3-3; Figures 2.0-2, 2.1-1A, 2.1-2, 2.1-3A, 2.1-4, 2.3-1, 2.3-2, 2.3-3, 2.3-4, 2.3-5, 2.3-6, 2.3-9, 2.3-10, 2.3-11, 3.0-1	Yes	
Appendix B (h) (1) (B)	A discussion of any measures proposed to improve adverse site conditions.	§§ 2.3.11.2, 6.3.1.5.5, 6.3.2.4; Apps. 2.1, 2.2	Yes	
Appendix B (h) (1) (C)	A description of the proposed foundation types, design criteria (including derivation), analytical techniques, assumptions, loading conditions, and loading combinations to be used in the design of facility structures and major mechanical and electrical equipment	§§ 2.3.11.2, 2.3.15.8, 2.3.17, 2.3.18, 2.5.1, 6.3.1.5.2, 6.3.1.5.5, 6.3.2.4; Apps. 2.1, 2.2; Tables 2.5-1, 2.5-2	Yes	
Appendix B (h) (1) (D)	For each of the following facilities and/or systems, provide a description including drawings, dimensions, surface-area requirements, typical operating data, and performance and design criteria for protection from impacts due to adverse site conditions:	—	—	

Adequacy Issue: Adequate Inadequate
 Technical Area: Facility Design
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Project: Avenal Energy Technical Staff: Steve Baker
 Docket: 08-AFC-1 Technical Senior: Steve Baker

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (D) (i)	The power generation system;	§§ 1.5.2, 2.3.6.1, 2.3.6.2, 2.3.6.3, 2.3.6.4; Apps. 2.1, 2.3, 2.4, 2.5; Table 1.5-1; Figures 2.1-4, 2.3-1, 2.3-3, 2.3-4	Yes	
Appendix B (h) (1) (D) (ii)	The heat dissipation system;	§§ 1.1, 1.5.2, 2.3.2, 2.3.6.4; Table 1.5-1; Figures 2.1-4, 2.3-1, 2.3-3, 2.3-4	Yes	
Appendix B (h) (1) (D) (iii)	The cooling water supply system, and, where applicable, pre-plant treatment procedures;	§§ 1.1, 1.4, 1.5.5, 2.1.1, 2.3.7.1, 2.3.7.3, 2.3.7.7, 2.3.15.5; Ch. 6.5; Table 1.5-1; Figures 2.1-4, 2.3-1, 2.3-3, 2.3-4	Yes	
Appendix B (h) (1) (D) (iv)	The atmospheric emission control system;	§§ 1.5.2, 2.3.2, 2.3.6.2, 2.3.9.1, 2.3.9.2; Table 1.5-1; Figures 2.1-4, 2.3-1, 2.3-3, 2.3-4	Yes	
Appendix B (h) (1) (D) (v)	The waste disposal system and on-site disposal sites;	§§ 1.1, 1.5.2, 1.5.6, 2.3.2, 2.3.7.3; Table 1.5-1; Figures 2.1-4, 2.3-1, 2.3-3, 2.3-4, 2.3-9, 2.3-10, 2.3-11	Yes	
Appendix B (h) (1) (D) (vi)	The noise emission abatement system;	§§ 2.3.6.1, 2.3.10, 2.3.14.2; Table 1.5-1; Figures 2.1-4, 2.3-1, 2.3-3, 2.3-4	Yes	
Appendix B (h) (1) (D) (vii)	The geothermal resource conveyance and re-injection lines (if applicable);	N/A	N/A	
Appendix B (h) (1) (D) (viii)	Switchyards/transformer systems; and	§§ 1.5.2, 1.5.3, 2.3.13, 2.4, 2.4.3; Table 1.5-1; Figures 2.1-4, 2.3-1, 2.3-3, 2.3-4, 2.3-6	Yes	
Appendix B (h) (1) (D) (ix)	Other significant facilities, structures, or system components proposed by the applicant.	N/A	N/A	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: Facility Design
 Project Manager: Christopher Meyer

Project: Avenal Energy
 Docket: 08-AFC-1

Technical Staff: Steve Baker
 Technical Senior: Steve Baker

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Tables 2.5-1, 2.5-2, 6.3.3	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Tables 2.5-5, 6.3-4	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 2.5-5	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Figure 3.0-1	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Geological Hazards
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Dal Hunter, Ph.D., C.E.G.
 Technical Senior: Steve Baker

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 6.3.1.1, Section 6.3.1.2, Section 2.1.2, Section 2.1.3, Section 2.3.1, Figure 2.1-5A, Figure 2.1-3A, Figure 2.1-3C, Figure 2.1-1A & B, Section 6.3.2.1, Section 6.3.2.2, Section 6.3.2.3, Section 6.3.3	Yes	
Appendix B (g) (17) (A)	A summary of the geology, seismicity, and geologic resources of the project site and related facilities, including linear facilities.	Section 6.3.1.1, Section 6.3.1.2, Section 6.3.1.3, Section 6.3.1.4, Table 6.3-1, Section 6.3.1.5.1, Section 6.3.1.5.2, Table 6.3-2, Section 6.3.1.6	Yes	
Appendix B (g) (17) (B)	A map at a scale of 1:24,000 and description of all recognized stratigraphic units, geologic structures, and geomorphic features within two (2) miles of the project site and along proposed facilities. Include an analysis of the likelihood of ground rupture, seismic shaking, mass wasting and slope stability, liquefaction, subsidence, tsunami runup, and expansion or collapse of soil structures at the plant site. Describe known geologic hazards along or crossing linear facilities.	Figure 6.3-3A , B & C, Figure 6.3-2, Figure 6.3-4, Section 6.3.1.5.1, Section 6.3.1.5.2, Table 6.3-2, Section 6.3.1.5.4, Section 6.3.1.5.5, Section 6.3.1.5.6, Section 6.3.1.5.3, Section 6.3.1.5.7	Yes	
Appendix B (g) (17) (C)	A map and description of geologic resources of recreational, commercial, or scientific value which may be affected by the project. Include a discussion of the techniques used to identify and evaluate these resources.	Section 3.6.1.6	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Geological Hazards
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Project: Avenal Energy Technical Staff: Dal Hunter, Ph.D., C.E.G.
 Docket: 08-AFC-1 Technical Senior: Steve Baker

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 6.3-3	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 2.5-5 and Table 6.3-3	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 6.3-4	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 6.3.1	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Hazardous Materials Handling
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Project: Avenal Energy Technical Staff: Rick Tyler
 Docket: 08-AFC-1 Technical Senior: Rick Tyler

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Section 4.0 through 4.4	Yes	
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 6.15	Yes	
Appendix B (g) (10) (A)	A list of all materials used or stored on-site which are hazardous or acutely hazardous, as defined in Title 22, California Code of Regulations, § 66261.20 et seq., and a discussion of the toxicity of each material.	Table 6.15-2	Yes	
Appendix B (g) (10) (B)	A map at a scale of 1:24,000 depicting the location of schools, hospitals, day-care facilities, emergency response facilities and long-term health care facilities, within the area potentially affected by any release of hazardous materials.	Figure 6.15 -1	Yes	
Appendix B (g) (10) (C)	A discussion of the storage and handling system for each hazardous material used or stored at the site.	Section 6.15	Yes	
Appendix B (g) (10) (D)	The protocol that will be used in modeling potential consequences of accidental releases that could result in off site impacts. Identify the model(s) to be used, a description of all input assumptions, including meteorological conditions. The results of the modeling analysis can be submitted after the AFC is complete.	Section 6.15.2.2.2 through 6.15.2.2.8	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Hazardous Materials Handling
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Project: Avenal Energy Technical Staff: Rick Tyler
 Docket: 08-AFC-1 Technical Senior: Rick Tyler

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (10) (E)	A discussion of whether a risk management plan (Health and Safety Code § 25531 et seq.) will be required, and if so, the requirements that will likely be incorporated into the plan.	Section 6.15 and 6.15.1	Yes	
Appendix B (g) (10) (F)	A discussion of measures proposed to reduce the risk of any release of hazardous materials.	Section 6.15	Yes	
Appendix B (g) (10) (G)	A discussion of the fire and explosion risks associated with the project.	Section 6.15.2.2.1	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 6.15 - 4	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 6.15 - 5	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: **Hazardous Materials Handling**

Project: Avenal Energy

Technical Staff: Rick Tyler

Project Manager: Christopher Meyer

Docket: 08-AFC-1

Technical Senior: Rick Tyler

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 5.15 - 5	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Table 6.15 – 4 and Section 16.5.1	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Land Use
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: David Flores
 Technical Senior: Dale Edwards

Project: Chula Vista Energy Upgrade Project
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	AFC pg. 6.9-1 & 2 Sec. 6.9.1 AFC pg. 6.9-19 Sec. 6.9.3.5 AFC pg. 6.9-21 Sec. 6.9.4	Yes	
Appendix B (g) (3) (A)	A discussion of existing land uses and current zoning at the site, land uses and land use patterns within one mile of the proposed site and within one-quarter mile of any project-related linear facilities. Include:	AFC pg. 6.9-1 through 4 Sec. 6.9.1.1 through 6.9.1.2	Yes	
Appendix B (g) (3) (A) (i)	An identification of residential, commercial, industrial, recreational, scenic, agricultural, natural resource protection, natural resource extraction, educational, religious, cultural, and historic areas, and any other area of unique land uses;	AFC pg. 6.9-2 & 3 Sec. 6.9.1.2	Yes	
Appendix B (g) (3) (A) (ii)	A discussion of any recent or proposed zone changes and/or general plan amendments; noticed by an elected or appointed board, commission, or similar entity at the state or local level;	AFC pg. 6.9-3 Sec. 6.9.1.2	Yes	
Appendix B (g) (3) (A) (iii)	Identification of all discretionary reviews by public agencies initiated or completed within 18 months prior to filing the application for those changes or developments identified in subsection (g)(3)(A)(ii); and	AFC pg. 6.9-3 Sec. 6.9.1.2	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Land Use
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: David Flores
 Technical Senior: Dale Edwards

Project: Chula Vista Energy Upgrade Project
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (3) (A) (iv)	Legible maps of the areas identified in subsection (g)(3)(A) potentially affected by the project, on which existing land uses, jurisdictional boundaries, general plan designations, specific plan designations, and zoning have been clearly delineated.	Figure 6.9-2A through Figure 6.9-3B	Yes	
Appendix B (g) (3) (B)	A discussion of the compatibility of the proposed project with present and expected land uses, and conformity with any long-range land use plans adopted by any federal, state, regional, or local planning agencies. The discussion shall identify the need, if any, for land use decisions by another public agency or as part of the commission's decision that would be necessary to make the project conform to adopted federal, state, regional, or local coastal plans, land use plans, or zoning ordinances. Examples of land use decisions include: general plan amendments, zoning changes, lot line adjustments, parcel mergers, subdivision maps, Agricultural Land Conservation Act contracts cancellation, and Airport Land Use Plan consistency determinations.	AFC pg. 6.9-5 through 11 Sec. 6.9.22 through 6.9.2.5 AFC pg. 6.9-19 & 20 Sec. 6.9.3.6 AFC pg. 6.9-6 & 7 Table 6.9-1 & 2	Yes	
Appendix B (g) (3) (C)	A discussion of the legal status of the parcel(s) on which the project is proposed. If the proposed site consists of more than one legal parcel, describe the method and timetable for merging or otherwise combining those parcels so that the proposed project, excluding linears and temporary laydown or staging area, will be located on a single legal parcel. The merger need not occur prior to a decision on the Application but must be completed prior to the start of construction.	AFC pg. 6.9-1 Sec. 6.9.1	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Land Use
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: David Flores
 Technical Senior: Dale Edwards

Project: Chula Vista Energy Upgrade Project
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (3) (D)	A map at a scale of 1:24,000 and written description of agricultural land uses found within all areas affected by the proposed project. The description shall include:	AFC Figure 6.9-3A	Yes	
Appendix B (g) (3) (D) (i)	Crop types, irrigation systems, and any special cultivation practices;	AFC pg.6.4-5 & 6 Sec. 6.4.1.2	Yes	
Appendix B (g) (3) (D) (ii)	Whether farmland affected by the project is prime, of statewide importance, or unique as defined by the California Department of Conservation; and	AFC pg. 6.4-6 Sec. 6.4.1.2 Figure 6.4-4A	Yes	
Appendix B (g) (3) (D) (iii)	Direct, indirect, and cumulative effects on agricultural land uses. If the proposed site or related facilities are subject to an Agricultural Land Conservation contract, provide a written copy and a discussion of the status of the expiration or canceling of such contract.	AFC pg. 6.4-9 Sec. 6.4.2.3 AFC pg. 6-4 Sec. 6.1.4	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	AFC pg.6.9-6 through 11 Table 6.9-1 through 4 Sec. 6.9.2.2 through 6.9.2.5	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Land Use
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Project: Chula Vista Energy Upgrade Project Technical Staff: David Flores
 Docket: 08-AFC-1 Technical Senior: Dale Edwards

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	AFC pg. 6.9-11 Sec. 6.9.2.6	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	AFC pg. 6.9-11 & 12 Table 6.9-3 Sec. 6.9.2.6	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	AFC pg. 6.9-11 Sec. 6.9.2.6	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Noise
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Shahab Khoshmashrab
 Technical Senior: Steve Baker

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	§§ 1.1, 1.3, 1.5.3, 2.0, 2.1.1, 2.1.4, 2.1.6, 2.1.14; Ch. 5.7	Yes	
Appendix B (g) (4) (A)	A land use map which identifies residences, hospitals, libraries, schools, places of worship, or other facilities where quiet is an important attribute of the environment within the area impacted by the proposed project. The area potentially impacted by the proposed project is that area where, during either construction or operation, there is a potential increase of 5 dB(A) or more, over existing background levels.	Fig. 5.7-1	Yes	
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	§§ 1.1, 1.5, 2.1, 2.1.3; Chapter 6.9	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Noise
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Shahab Khoshmashrab
 Technical Senior: Steve Baker

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (4) (A)	A land use map which identifies residences, hospitals, libraries, schools, places of worship, or other facilities where quiet is an important attribute of the environment within the area impacted by the proposed project. The area potentially impacted by the proposed project is that area where, during either construction or operation, there is a potential increase of 5 dB(A) or more, over existing background levels.	Figure 6.12-1	Yes	
Appendix B (g) (4) (B)	A description of the ambient noise levels at those sites identified under subsection (g)(4)(A) which the applicant believes provide a representative characterization of the ambient noise levels in the project vicinity, and a discussion of the general atmospheric conditions, including temperature, humidity, and the presence of wind and rain at the time of the measurements. The existing noise levels shall be determined by taking noise measurements for a minimum of 25 consecutive hours at a minimum of one site. Other sites may be monitored for a lesser duration at the applicant's discretion, preferably during the same 25-hour period. The results of the noise level measurements shall be reported as hourly averages in Leq (equivalent sound or noise level), Ldn (day-night sound or noise level) or CNEL (Community Noise Equivalent Level) in units of dB(A). The L10, L50, and L90 values (noise levels exceeded 10 percent, 50 percent, and 90 percent of the time, respectively) shall also be reported in units of dB(A).	§ 6.12.4.2; Table 6.12-4; Figures 6.12-8, 6.12-9	Yes	
Appendix B (g) (4) (C)	A description of the major noise sources of the project, including the range of noise levels and the tonal and frequency characteristics of the noise emitted.	§§ 6.12.4, 6.12.4.1	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Noise
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Shahab Khoshmashrab
 Technical Senior: Steve Baker

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (4) (D)	An estimate of the project noise levels, during both construction and operation, at residences, hospitals, libraries, schools, places of worship or other facilities where quiet is an important attribute of the environment, within the area impacted by the proposed project.	§ 6.12.5; Tables 6.12-6, 6.12-7	Yes	
Appendix B (g) (4) (E)	An estimate of the project noise levels within the project site boundary during both construction and operation and the impact to the workers at the site due to the estimated noise levels.	§§ 6.12.5.3.2, 6.12.5.3.6, 6.12.5.3.7; Figure 6.12-10	Yes	
Appendix B (g) (4) (F)	The audible noise from existing switchyards and overhead transmission lines that would be affected by the project and estimates of the future audible noise levels that would result from existing and proposed switchyards and transmission lines. Noise levels shall be calculated at the property boundary for switchyards and at the edge of the rights-of-way for transmission lines.	§ 6.12.5.3.7	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	§§ 6.12.3, 6.12.9	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: Noise

Project: Avenal Energy

Technical Staff: Shahab Khoshmashrab

Project Manager: Christopher Meyer

Docket: 08-AFC-1

Technical Senior: Steve Baker

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	§ 6.12.10; Table 6.12-11	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Paleontological Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Dal Hunter, Ph.D., C.E.G.
 Technical Senior: Steve Baker

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 6.8.1, Section 6.8.1.1, Section 6.8.1.2, Section 6.8.1.3, Section 6.8.2.4, Section 6.8.2.3, Section 6.8.2.5, Section 6.8.2.2, Section 6.8.3	Yes	
Appendix B (g) (16) (A)	Identification of the physiographic province and a brief summary of the geologic setting, formations, and stratigraphy of the project area. The size of the paleontological study area may vary depending on the depositional history of the region.	Section 6.8.1.1, Section 6.8.1.2	Yes	
Appendix B (g) (16) (B)	A discussion of the sensitivity of the project area described in subsection (g)(16)(A) and the presence and significance of any known paleontologic localities or other paleontologic resources within or adjacent to the project. Include a discussion of sensitivity for each geologic unit identified on the most recent geologic map at a scale of 1:24,000. Provide rationale as to why the sensitivity was assigned.	Section 6.8.1.3	Yes	
Appendix B (g) (16) (C)	A summary of all local museums, literature searches and field surveys used to provide information about paleontologic resources in the project area described in subsection (g)(16)(A). Identify the dates of the surveys, methods used in completing the surveys, and the names and qualifications of the individuals conducting the surveys.	Section 6.8.1.4, Section 6.1.4.2, Section 6.8.1.5, Appendix 6.8-1 p. 6, Appendix 6.8-1 p. 31-44	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Paleontological Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Dal Hunter, Ph.D., C.E.G.
 Technical Senior: Steve Baker

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (16) (D)	Information on the specific location of known paleontologic resources, survey reports, locality records, and maps at a scale of 1:24,000, showing occurrences of fossil finds, if known, within a one-mile radius of the project and related facilities shall be included in a separate appendix to the Application and submitted to the Commission under a request for confidentiality, pursuant to Title 20, California Code of Regulations, s 2501 et seq.	Section 6.8.1.5, Section 6.8.1.5.2	Yes	
Appendix B (g) (16) (E)	A discussion of any educational programs proposed to enhance awareness of potential impacts to paleontological resources by employees, measures proposed for mitigation of impacts to known paleontologic resources, and a set of contingency measures for mitigation of potential impacts to currently unknown paleontologic resources.	Section 6.8.2.5	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 6.8-1, Section 6.8.5	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Paleontological Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Dal Hunter, Ph.D., C.E.G.
 Technical Senior: Steve Baker

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 2.5-5 and Table 6.8-1	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 2.5-5	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 6.8.5	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Project Overview
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Christopher Meyer
 Technical Senior: Robert Worl

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Cal. Code Regs., tit. 20, § 1704, (a) (3) (A)	Descriptions of all significant assumptions, methodologies, and computational methods used in arriving at conclusions in the document.		N/A	Please see the individual technical areas for a determination regarding the adequacy of this item.
Cal. Code Regs., tit. 20, § 1704, (a) (3) (B)	Descriptions, including methodologies and findings, of all major studies or research efforts undertaken and relied upon to provide information for the document; and a description of ongoing research of significance to the project (including expected completion dates; and		N/A	Please see the individual technical areas for a determination regarding the adequacy of this item.
Cal. Code Regs., tit. 20, § 1704, (a) (3) (C)	A list of all literature relied upon or referenced in the documents, along with brief discussions of the relevance of each such reference		N/A	Please see the individual technical areas for a determination regarding the adequacy of this item.
Cal. Code Regs., tit. 20, § 1704, (a) (4)	Each principal subject area covered in a notice or application shall be set forth in a separate chapter or section, each of which shall identify the person or persons responsible for its preparation.	Section 5.0 Sections 6.2 through 6.18 Section 7.0, p. 7-1	Yes	
Appendix B (a) (1) (A)	A general description of the proposed site and related facilities, including the location of the site or transmission routes, the type, size and capacity of the generating or transmission facilities, fuel characteristics, fuel supply routes and facilities, water supply routes and facilities, pollution control systems, and other general characteristics.	Section 1.0, pp. 1-1 through 1-8, Table 1.5-1, Figures 1.5-3A and 1.5-3B	Yes	
Appendix B (a) (1) (B)	Identification of the location of the proposed site and related facilities by section, township, range, county and assessor's parcel numbers.	Section 1.0, pp. 1-3 through 1-4	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Project Overview
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
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Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (a) (1) (C)	A description of and maps depicting the region, the vicinity, and the site and its immediate surroundings.	Section 1.0, p. 1-3 Figures 1.5-1 through 1.5-3B	Yes	
Appendix B (a) (1) (D)	A full-page color photographic reproduction depicting the visual appearance of the site prior to construction, and a full-page color simulation or artist's rendering of the site and all project components at the site, after construction.	Figure 1.5-4 and Figure 1.5-5	Yes	
Appendix B (a) (1) (E)	In an appendix to the application, a list of current assessor's parcel numbers and owners' names and addresses for all parcels within 500 feet of the proposed transmission line and other linear facilities, and within 1000 feet of the proposed powerplant and related facilities.	Appendix 1-1	Yes	
Appendix B (a) (2)	Project Schedule: Proposed dates of initiation and completion of construction, initial start-up, and full-scale operation of the proposed facilities.	Section 1.3, p. 1-2, Figure 1.3-1	Yes	
Appendix B (a) (3) (A)	A list of all owners and operators of the site(s), the power plant facilities, and, if applicable, thermal host, the geothermal leasehold, the geothermal resource conveyance lines, and the geothermal re-injection system, and a description of their legal interest in these facilities.	Section 1.4, p. 1-3	Yes	
Appendix B (a) (3) (B)	A list of all owners and operators of the proposed electric transmission facilities.	Section 1.5.2, p. 1-6	Yes	
Appendix B (a) (3) (C)	A description of the legal relationship between the applicant and each of the persons or entities specified in subsections (a)(3)(A) and (B).	Section 1.1, p. 1-1	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Project Overview
 Project Manager: Christopher Meyer

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Revision No. 0 Date March 17, 2008
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Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (1)	In a section entitled, "Generation Facility Description, Design, and Operation" provide the following information:	Section 2.3, p. 2-8 through 2-65	Yes	
Appendix B (b) (1) (A)	Maps at a scale of 1:24,000 (1" = 2000'), (or appropriate map scale agreed to by staff) along with an identification of the dedicated leaseholds by section, township, range, county, and county assessor's parcel number, showing the proposed final locations and layout of the power plant and all related facilities;	Figures 2.1-3B and 2.1-3C	Yes	
Appendix B (b) (1) (B)	Scale plan and elevation drawings depicting the relative size and location of the power plant and all related facilities to establish the accuracy of the photo simulations required in Sections (a)(1)(D) and (g)(6)(F);	Figures 2.3-4, 2.3-5, 2.4-3, and 2.4-5	Yes	
Appendix B (b) (1) (C)	A detailed description of the design, construction and operation of the facilities, specifically including the power generation, cooling, water supply and treatment, waste handling and control, pollution control, fuel handling, and safety, emergency and auxiliary systems, and fuel types and fuel use scenarios; and	Section 2.3, pp. 2-8 through 2-65	Yes	
Appendix B (b) (1) (D)	A description of how the site and related facilities were selected and the consideration given to engineering constraints, site geology, environmental impacts, water, waste and fuel constraints, electric transmission constraints, and any other factors considered by the applicant.	Section 2.3, pp. 2-8 through 2-9	Yes	
Appendix B (b) (2)	In a section entitled, "Transmission Lines Description, Design, and Operation" provide the following information:	Section 2.4, pp. 2-53 through 2-65	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Project Overview
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Christopher Meyer
 Technical Senior: Robert Worl

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (2) (A)	Maps at a scale of 1:24,000 (or appropriate map scale agreed to by staff) of each proposed transmission line route, showing the settled areas, parks, recreational areas, scenic areas, and existing transmission lines within one mile of the proposed route(s);	Section 2.1, Figures 2.1-1A, 2.1-1B, 2.1-3C Section 6, Figure 6.13-3	Yes	
Appendix B (b) (2) (B)	A full-page color photographic reproduction depicting a representative above ground section of the transmission line route prior to construction and a full-page color photographic simulation of that section of the transmission line route after construction.	Section 2.4, Figures 2.1-5A and 2.1-5B Section 6, Figures 6.13-23 through 6.13-30	Yes	
Appendix B (b) (2) (C)	A detailed description of the design, construction, and operation of any electric transmission facilities, such as power lines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility. Such description shall include the width of rights-of-way and the physical and electrical characteristics of electrical transmission facilities such as towers, conductors, and insulators.	Section 2.4, pp. 2-53 through 2-56 Figures 2.3-6, 2.4-3, 2.4-4	Yes	
Appendix B (b) (2) (D)	A description of how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electric transmission constraints; and	Section 2.4, pp. 2-53 through 2-56	Yes	
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Section 4.0, pp. 4-1 and 4-2	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: Public Health
 Project Manager: Christopher Meyer

Project: Avenal Energy
 Docket: 08-AFC-1

Technical Staff: Obed Odoemelam
 Technical Senior: Matthew Layton

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 6.16.3 Section 6.16.4 Section 6.16.5 Section 6.16.6 Section 6.2.1	Yes	
Appendix B (g) (9) (A)	An assessment of the potential risk to human health from the project's hazardous air emissions using the Air Resources Board Hotspots Analysis and Reporting Program (HARP) (HSC §§44360-44366) or its successor and Approved Risk Assessment Health Values. These values should include the cancer potency values and noncancer reference exposure levels approved by the Office of Environmental Health Hazard Assessment (OEHHA Guidelines, Cal-EPA 2005).	Section 6.16.4.4.2 Appendix 6.16	Yes	
Appendix B (g) (9) (B)	A listing of the input data and output results, in both electronic and print formats, used to prepare the HARP health risk assessment.	Appendix 6.16	Yes	
Appendix B (g) (9) (C)	Identification of available health studies through the local public health department concerning the potentially affected population(s) within a six-mile radius of the proposed power plant site related to respiratory illnesses, cancers or related diseases.	Section 6.16.3	Yes	
Appendix B (g) (9) (D)	A map showing sensitive receptors within the area exposed to the substances identified in subsection (g)(9)(A).	Figure 6.16-1 Table 6.16-2	Yes	
Appendix B (g) (9) (E)	For purposes of this section, the following definitions apply:			

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: Public Health
 Project Manager: Christopher Meyer

Project: Avenal Energy
 Docket: 08-AFC-1

Technical Staff: Obed Odoemelam
 Technical Senior: Matthew Layton

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (9) (E) (i)	A sensitive receptor refers to infants and children, the elderly, and the chronically ill, and any other member of the general population who is more susceptible to the effects of the exposure than the population at large;			
Appendix B (g) (9) (E) (ii)	An acute exposure is one which occurs over a time period of less than or equal to one (1) hour; and			
Appendix B (g) (9) (E) (iii)	A chronic exposure is one which is greater than twelve (12) percent of a lifetime of seventy (70) years.			
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 6.16-1	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 6.16-1	Yes	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Technical Area: Public Health

Project: Avenal Energy

Technical Staff: Obed Odoemelam

Project Manager: Christopher Meyer

Docket: 08-AFC-1

Technical Senior: Matthew Layton

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 6.16-8	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 6.16.8 Table 6.16-9	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Reliability
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008

Project: Avenal Energy Technical Staff: Erin Bright
 Docket: 08-AFC-1 Technical Senior: Steve Baker

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	§§1.1, 1.2, 1.5.4, 1.5.5, 2.1.1, 2.2.3.2, 2.3.2, 2.3.6, 2.3.7, 2.3.14, 2.3.15, 6.3.1.5, 6.5.1.1, 6.5.1.2; App 2.7	Yes	
Appendix B (h) (3) (A)	A discussion of the sources and availability of the fuel or fuels to be used over the estimated service life of the facilities.	§§1.6, 2.3.14.1, 2.3.15.4	Yes	
Appendix B (h) (3) (B)	A discussion of the anticipated service life and degree of reliability expected to be achieved by the proposed facilities based on a consideration of:	§2.3.15	Yes	
Appendix B (h) (3) (B) (i)	Expected overall availability factor, and annual and lifetime capacity factors;	§2.3.15	Yes	
Appendix B (h) (3) (B) (ii)	The demonstrated or anticipated feasibility of the technologies, systems, components, and measures proposed to be employed in the facilities, including the power generation system, the heat dissipation system, the water supply system, the reinjection system, the atmospheric emission control system, resource conveyance lines, and the waste disposal system;	§§1.5.5, 2.3.2, 2.3.6, 2.3.7, 2.3.9, 2.3.14, 2.3.15, 6.5.1.1	Yes	
Appendix B (h) (3) (B) (iii)	Geologic and flood hazards, meteorological conditions and climatic extremes, and cooling water availability;	§§2.3.7.1, 2.3.7.6, 6.3.1.5, 6.5.1.2	Yes	
Appendix B (h) (3) (B) (iv)	Special design features adopted by the applicant or resource supplier to ensure power plant reliability including equipment redundancy; and	§§2.3.15.2, 2.3.15.8; App 2.7	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Reliability
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Erin Bright
 Technical Senior: Steve Baker

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (3) (B) (v)	For technologies not previously installed and operated in California, the expected power plant maturation period.	N/A	N/A	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	N/A	N/A	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	N/A	N/A	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	N/A	N/A	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	N/A	N/A	

Adequacy Issue: Adequate _____ Inadequate x
 Technical Area: Socioeconomics
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Joseph Diamond Ph. D.
 Technical Senior: Dale Edwards

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 6.10 Socioeconomics, p. 6.10-1. Section 6.10.1 Existing Conditions, pp. 6.1-2. Section 6.10.2 Impacts, pp. 6.10-15 to 32. Section 6.10.2.3 Cumulative Impacts, p. 6.10-32. Section 6.1.4 Cumulative Projects, p. 6-4. Table 6.1-1 Projects For Cumulative Impact Analysis, p. 6-5. Section 6.10.3 Mitigation Measures, p. 6.10-33. Section 6.10.2.2.10 Environmental Justice Screening Analysis, pp. 6.10-30 to 32.	Yes	
Appendix B (g) (7) (A)	A description of the socioeconomic circumstances of the vicinity and region affected by construction and operation of the project. Include:			
Appendix B (g) (7) (A) (i)	The economic characteristics, including the economic base, fiscal resources, and a list of the applicable local agencies with taxing powers and their most recent and projected revenues;	Section 6.10.1.2 Economy, pp. 6.10-5 to 8. Section 6.10.1.7 Fiscal Resources, pp. 6.10-13 to 15.	Yes	.
Appendix B (g) (7) (A) (ii)	The social characteristics, including population and demographic and community trends;	Section 6.10.1.1 Population, pages 6.10-2 to 6.10-5.	Yes	

Adequacy Issue: Adequate _____ Inadequate x
 Technical Area: Socioeconomics
 Project Manager: Christopher Meyer

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (A) (iii)	Existing unemployment rates;	Section 6.10.1.2 Economy, p. 6.10-7. Section 6.10.2.1.3 Employment and Economy, pp. 6.10-20&21. Table 6.10-6 2006 Employment Data For Kings and Adjacent Counties, p. 6.10-8.	Yes	
Appendix B (g) (7) (A) (iv)	Availability of skilled workers by craft required for construction and operation of the project;	Section 6.10.2.1.2 Population, p. 6.10-19. Table 6.10-12 Estimated Number of Construction Craft Workers In Year 2005, p. 6.10-20.	Yes	
Appendix B (g) (7) (A) (v)	Availability of temporary and permanent housing and current vacancy rate; and	Section 6.10.1.3 Housing, p. 6.10-8&9. Section 6.10.2.1.4 Housing, p. 6.10-22.	Yes	

Adequacy Issue: Adequate _____ Inadequate x
 Technical Area: Socioeconomics
 Project Manager: Christopher Meyer

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (A) (vi)	Capacities, existing and expected use levels, and planned expansion of utilities (gas, water and waste) and public services, including fire protection, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. For projects outside metropolitan areas with a population of 500,000 or more, information for each school district shall include current enrollment and yearly expected enrollment by grade level groupings, excluding project-related changes for the duration of the project schedule.	Section 6.10.1.4 Schools, p. 6.10-10. Section 6.10.1.5 Utilities, p. 6.10-11. Section 6.10.1.5.1 Electricity and Gas, p. 6.10-11. Section 6.10.1.5.2 Sewer, p. 6.10-11. Section 6.10.1.5.3 Water, p. 6.10-11. Section 6.10.1.5.4 Telephone, pp. 6.10-11&12. Section 6.10.1.6 Emergency and Other Services, p. 6.10-12. Section 6.10.1.6.2 Fire Protection, p. 6.10-12. Section 6.10.1.6.3 Hospitals, p. 6.10-13.	Yes	
Appendix B (g) (7) (B)	A discussion of the socioeconomic impacts caused by the construction and operation of the project (note year of estimate, model, if used, and appropriate sources), including:			
Appendix B (g) (7) (B) (i)	An estimate of the number of workers to be employed each month by craft during construction, and for operations, an estimate of the number of permanent operations workers during a year;	Table 6.10-11 Construction Staff By Month and Craft, p. 6.10-18. Section 6.10.2.2. Operations and Maintenance-Related Impacts, p. 6.10-24.	Yes	

Adequacy Issue: Adequate _____ Inadequate x
 Technical Area: Socioeconomics
 Project Manager: Christopher Meyer

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (ii)	An estimate of the percentage of non-local workers who will relocate to the project area to work on the project;	Section 6.10.1.1 Population, p. 6.10-2. Section 6.10.2 Impacts, p. 6.10-16. Section 6.10.2.1.2 Population, p. 6.10-19. Section 6.10.2.2.2 Population, p. 6.10-25. Section 6.10.2.2.4 Housing, p. 6.10-25.	Yes	.
Appendix B (g) (7) (B) (iii)	An estimate of the potential population increase caused directly and indirectly by the project;	Section 6.10.2.1.2 Population, p. 6.10-19. Section 6.10.2.2.2 Population, p. 6.10-24.	No	Please provide an estimate of the potential population increase caused indirectly by the project.
Appendix B (g) (7) (B) (iv)	The potential impact of population increase on housing during the construction and operations phases;	Section 6.10.2.1.4 Housing, p. 6.10-22.	Yes	
Appendix B (g) (7) (B) (v)	The potential impacts, including additional costs, on utilities (gas, water, and waste) and public services, including fire, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. Include response times to hospitals and for police, and emergency services. For projects outside metropolitan areas with a population of 500,000 or more, information on schools shall include project-related enrollment changes by grade level groupings and associated facility and staffing impacts by school district during the construction and operating phases;	Section 6.10.2.1.5 Schools, p. 6.10-22. Section 6.10.2.1.6 Utilities, p. 6.10-23. Section 6.10.2.1.7 Emergency and Other Services, p. 6.10-23. Section 6.10.2.2.5 Schools, pp. 6.10-25&26. Section 6.10.2.2.6 Utilities, p. 6.10-27. Section 6.10.2.2.7 Emergency and Other Services, p. 6.10-28.	Yes	
Appendix B (g) (7) (B) (vi)	An estimate of applicable school impact fees;	Section 6.10.2.2.5 Schools, School Impact Fees, p. 6.10-26.	Yes	

Adequacy Issue: Adequate _____ Inadequate x
 Technical Area: Socioeconomics
 Project Manager: Christopher Meyer

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Project: Avenal Energy
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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (vii)	An estimate of the total construction payroll and separate estimates of the total operation payroll for permanent and short-term (contract) operations employees;	Section 6.10.2.1.3 Employment and Economy, p. 6.10-21. Section 6.10.2.2.3 Employment and Economy, p. 6.10-25.	No	Please provide separate estimates of the total operation payroll for permanent and short term (contract) operation employees.
Appendix B (g) (7) (B) (viii)	An estimate of the expenditures for locally purchased materials for the construction and operation phases of the project;	Section 6.10.2.1.3 Employment and Economy, p. 6.10-21. Section 6.10.2.2.3 Employment and Economy, p. 6.10-25.	Yes	
Appendix B (g) (7) (B) (ix)	An estimate of the capital cost (plant and equipment) of the project;	Section 6.10.2.1.3 Employment and Economy, p. 6.10-21.	Yes	
Appendix B (g) (7) (B) (x)	An estimate of sales taxes generated during construction and separately during an operational year of the project;	Section 6.10.2.1.3 Employment and Economy, p. 6.10-23&24. Section 6.10.2.2.3 Employment and Economy, p. 6.10-25.	Yes	
Appendix B (g) (7) (B) (xi)	An estimate of property taxes generated during an operational year of the project; and	Section 6.10.2.2.5 Schools, p. 6.10-25.	Yes	
Appendix B (g) (7) (B) (xii)	The expected direct, indirect, and induced income and employment effects due to construction, operation, and maintenance of the project.	Section 6.10.2.1.3 Employment and Economy, pp. 6.10-20 to 22. Section 6.10.2.1.3 Employment and Economy, p. 6.10-25.	Yes	

Adequacy Issue: Adequate _____ Inadequate x
 Technical Area: Socioeconomics
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Project: Avenal Energy Technical Staff: Joseph Diamond Ph. D.
 Docket: 08-AFC-1 Technical Senior: Dale Edwards

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 6.10-17 SOCIOECONOMIC LORS COMPLIANCE, p. 6.10-34.	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Same as above.	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.		No	Please provide the name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 6.10.3 Mitigation Measures, p. 6.10-33. Table 6.10-17. SOCIOECONOMIC LORS AND COMPLIANCE, p. 6.10-34.	N/A.	

Adequacy Issue: Adequate Inadequate
 Technical Area: Soils
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Casey Weaver
 Technical Senior: Paul Marshall

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 1.1, p. 1-2 Section 1.5, p. 1-3 Section 6.1.2, p. 6-2 Section 6.1.4, pp. 6-4, 6.4-1 pp. 6.5-2 through 6.5-17	Yes	
Appendix B (g) (15) (A)	A map at a scale of 1:24,000 and written description of soil types and all agricultural land uses that will be affected by the proposed project. The description shall include:	Fig 6.4-1A Fig 6.4-1B	Yes	
Appendix B (g) (15) (A) (i)	The depth, texture, permeability, drainage, erosion hazard rating, and land capability class of the soil;	Section, 6.5.1.2, p. 6.5-5 Table 6.4-1	Yes	
Appendix B (g) (15) (A) (ii)	An identification of other physical and chemical characteristics of the soil necessary to allow an evaluation of soil erodibility, permeability, re-vegetation potential, and cycling of pollutants in the soil-vegetation system;	Table 6.4-1	Yes	
Appendix B (g) (15) (A) (iii)	The location of any proposed fill disposal or fill procurement (borrow) sites; and	NA		
Appendix B (g) (15) (A) (iv)	The location of any contaminated soils that could be disturbed by project construction.	NA		
Appendix B (g) (15) (B)	An assessment of the effects of the proposed project on soil resources and agricultural land uses. This discussion shall include:	-----		
Appendix B (g) (15) (B) (i)	The quantification of accelerated soil loss due to wind and water erosion; and	Section 6.4.2.1, p. 6.4-6 Section 6.4.2.2, p. 6.4-7	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Soils
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Casey Weaver
 Technical Senior: Paul Marshall

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (15) (B) (ii)	The effect of power plant emissions on surrounding soil-vegetation systems.	p. 6.4-8 and 6.4-9	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	p. 6.4-12 Table 6.4-2	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	p. 6.4-13 Table 6.4-3	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	p. 6.4-13 Table 6.4-3	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 3.0, p. 3-1 Figure 3.0-1	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Traffic and Transportation
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: James Adams
 Technical Senior: Dale Edwards

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	pp. 6.11-1 through 11-33 Section 6.11 Figures 6.11-1 through 11-4	Yes	
Appendix B (g) (5) (A)	A regional transportation setting, on topographic maps (scale of 1:250,000), identifying the project location and major transportation facilities. Include a reference to the transportation element of any applicable local or regional plan.	Figure 6.11-1	Yes	
Appendix B (g) (5) (B)	If the proposed project including any linear facility is to be located within 20,000 feet of an airport runway that is at least 3,200 feet in actual length, or 5,000 feet of a heliport (or planned or proposed airport runway or an airport runway under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration), discuss the project's compliance with the applicable sections of the current Federal Aviation Regulation Part 77 – Objects Affecting Navigable Airspace, specifically any potential to obstruct or impede air navigation generated by the project at operation; such as, a thermal plume, a visible water vapor plume, glare, electrical interference, or surface structure height. The discussion should include a map at a scale of 1:24,000 that displays the airport or airstrip runway configuration, the proposed power plant site and related facilities.	N/A	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Traffic and Transportation
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: James Adams
 Technical Senior: Dale Edwards

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (5) (C)	An identification, on topographic maps at a scale of 1:24,000, and a description of existing and planned roads, rail lines, (including light rail), bike trails, airports, bus routes serving the project vicinity, pipelines, and canals in the project area affected by or serving the proposed facility. For each road identified, include the following information, where applicable:	Figure 6.11-2	Yes	
Appendix B (g) (5) (C) (i)	Road classification and design capacity;	p. 6.11-5 Table 6.11-1 Section 6.11.1.2.1	Yes	
Appendix B (g) (5) (C) (ii)	Current daily average and peak traffic counts;	p. 6.11-5 Table 6.11-2 Section 6.11.1.2.1	Yes	
Appendix B (g) (5) (C) (iii)	Current and projected levels of service before project development, during construction, and during project operation;	pp. 6.11-7 through 11-11 Table 6.11-3 Section 6.11.1.3 pp. 6.11-16 through 11-20 Table 6.11-4A Section 6.11.2.2.2 pp. 6.11-23 through 11-26 Section 6.11.2.3.2	Yes	
Appendix B (g) (5) (C) (iv)	Weight and load limitations;	p. 6.11-1 Section 6.11 Table 6.11-1, p. 6.11-5 Section 6.11.1.2 p. 6.11-20 Section 6.11.2.2.3	Yes	
Appendix B (g) (5) (C) (v)	Estimated percentage of current traffic flows for passenger vehicles and trucks; and	p. 6.11-5 Table 6.11-2 Section 6.11.1.2	Yes	
Appendix B (g) (5) (C) (vi)	An identification of any road features affecting public safety.	Table 6.11-1 p. 6.11-5 Section 6.11.1.2 p. 6.11-6 Section 6.11.1.2	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Traffic and Transportation
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: James Adams
 Technical Senior: Dale Edwards

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (5) (D)	An assessment of the construction and operation impacts of the proposed project on the transportation facilities identified in subsection (g)(5)(C). Also include anticipated project-specific traffic, estimated changes to daily average and peak traffic counts, levels of service, and traffic/truck mix, and the impact of construction of any facilities identified in subsection (g)(5)(C).	Table 6.11-3 pp. 6.11-7 through 11-11 Section 6.11.2 pp. 6.11-13 through 11-29 Table 6.11-4 pp. 6.11-6 through 11-20 Section 6.11.2.2 Table 6.11-4B pp. 6.11-23 through 11-26 Section 6.11.2.3.2	Yes	
Appendix B (g) (5) (E)	A discussion of project-related hazardous materials to be transported to or from the project during construction and operation of the project, including the types, estimated quantities, estimated number of trips, anticipated routes, means of transportation, and any transportation hazards associated with such transport.	p. 6.11-21 Section 6.11.2.2.4 Table 6.11-5 pp. 6.11-27 & 28 Section 6.11.2.3.2 p. 6.11-22, Section 6.11.2.3.2 Table 6.11-6, p. 6.11-28	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 6.11-7, p. 6.11-31 Section 6.11.5	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Traffic and Transportation
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: James Adams
 Technical Senior: Dale Edwards

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 6.11-8 p. 6.11-32, Section 6.11.5	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 6.11-8 p. 6.11-32, Section 6.11.5	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Figure 3.0-1, Section 3.0	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Trans Line Safety & Nuisance
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Obed Odoemelam
 Technical Senior: Matthew Layton

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 1.0, p. 1-20. Section 2.0, pp. 2-53 through 2-55	Yes	
Appendix B (g) (18) (A)	The locations and a description of the existing switchyards and overhead and underground transmission lines that would be affected by the proposed project.	Section 2.0, p. 2-55. Section 6.18, pp. 6.18-1 and 6.18-2	Yes	
Appendix B (g) (18) (B)	An estimate of the existing electric and magnetic fields from the facilities listed in (A) above and the future electric and magnetic fields that would be created by the proposed project, calculated at the property boundary of the site and at the edge of the rights of way for any transmission line. Also provide an estimate of the radio and television interference that could result from the project.	Section 6.18, pp. 6.18-6 and 6.18-7	Yes	
Appendix B (g) (18) (C)	Specific measures proposed to mitigate identified impacts, including a description of measures proposed to eliminate or reduce radio and television interference, and all measures taken to reduce electric and magnetic field levels.	Section 6.18, pp. 6.18-2 through 6.18-5	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Trans Line Safety & Nuisance
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Obed Odoemelam
 Technical Senior: Matthew Layton

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 6.18, p. 6.18.-9	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 6.18, pp. 6.18-6 and 6.18-7	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 6.18, p. 6.18-8	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 6.18, p. 6.18-8	Yes	

Adequacy Issue: Adequate _____ Inadequate X
 Technical Area: Transmission System Design
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2007

Project: Avenal Energy
 Docket: 08-AFC-1

Technical Staff: Ajoy Guha
 Technical Senior: Mark Hesters

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (2) (A)	A discussion of the need for the additional electric transmission lines, substations, or other equipment, the basis for selecting principal points of junction with the existing electric transmission system, and the capacity and voltage levels of the proposed lines, along with the basis for selection of the capacity and voltage levels.	Section 1.2, p. 1-2. Sections 1.5.2 & 1.5.3, pp. 1-6 to 1-7.	Yes	
Appendix B (h) (2) (B)	A discussion of the extent to which the proposed electric transmission facilities have been designed, planned, and routed to meet the transmission requirements created by additional generating facilities planned by the applicant or any other entity.	Section 2.3.13, p. 2-29. Section 2.3.13.1, p. 2-30. Section 2.4, pp. 2-53 to 2-54. Figures 2.1-1B & 2.4-3.	Yes	
Appendix B (b) (2) (C)	A detailed description of the design, construction, and operation of any electric transmission facilities, such as power lines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility. Such description shall include the width of rights of way and the physical and electrical characteristics of electrical transmission facilities such as towers, conductors, and insulators.	Section 2.3.13, p. 2-29. Section 2.3.13.1, p. 2-30. Section 2.4, pp. 2-53 to 2-54. Figures 2.3-3, 2.3-6 & 2.4-4.	No	Provide one-line electrical diagrams of the pre and post-project PG&E 230 kV Gates substation showing the buses, breakers, disconnect switches and their respective ratings, along with the existing/proposed transmission outlets. Provide pre and post-project physical layout drawings of the PG&E Gates substation showing all major equipment and transmission outlets.
Appendix B (b) (2) (D)	A description of how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electric transmission constraints.	Section 2.4.6, p. 2-55. Section 5.5, pp. 5-8 to 5-10. Figure 5.5-1.	Yes	

Adequacy Issue: Adequate _____ Inadequate X
 Technical Area: Transmission System Design
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2007
 Technical Staff: Ajoy Guha
 Technical Senior: Mark Hesters

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (2) (E)	<p>A completed System Impact Study or signed System Impact Study Agreement with the California Independent System Operator (CA ISO) and proof of payment. When not connecting to the California Independent System Operator controlled grid, provide the executed System Impact Study agreement and proof of payment to the interconnecting utility.</p> <p>If the interconnection and operation of the proposed project will likely impact an transmission system that is not controlled by the interconnecting utility (or California Independent System Operator), provide evidence of a System Impact Study or agreement and proof of payment (when applicable) with/to the impacted transmission owner or provide evidence that there are no system impacts requiring mitigation.</p>	Section 2.4-5, p. 2-55.	No	<p>Staff observes that the applicant has only signed a Feasibility Study agreement with the California Independent System Operator (California ISO). Staff also observes that the previous 2002 & 2003 System Impact Study (SIS) reports and 2003 Facility Study report are no longer valid and therefore, considered null & void due to the Avenal Energy Project's new interconnection queue position in 2007 and new 2012 expected commercial operation date.</p> <p>Please provide a new completed System Impact Study report based on projected system conditions of 2012 commercial operation date <u>or</u> a copy of the signed System Impact Study Agreement with the California ISO and proof of payment.</p>
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 2.5, p. 2-56. Tables 2.5-1 to 2.5-4.	Yes	

Adequacy Issue: Adequate _____ Inadequate X
 Technical Area: Transmission System Design
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2007
 Technical Staff: Ajoy Guha
 Technical Senior: Mark Hesters

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 2.5, pp. 2-56. Table 2.5-5.	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 2.5, pp. 2-56. Table 2.5-1.	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 2.5, p. 2-56. Section 3.0, p. 3-1. Figure 3.0-1.	No	Provide the expected date when the final Large Generator Interconnection Agreement would be executed with the California ISO.

Adequacy Issue: Adequate Inadequate
 Technical Area: Visual Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Mark R. Hamblin
 Technical Senior: Dale Edwards

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	pp. 1-17 through 18, Section 1.0. pp. 6.13-12 through 26, Section 6.13.3. pp. 6.13-3 through 11, Section 6.13.2.	Yes	
Appendix B (g) (6) (A)	Descriptions of the existing visual setting of the vicinity of the proposed project site and the proposed routes for any project-related linear facilities. Include:	pp. 6.13-3 through 11, Section 6.13.2	Yes	
Appendix B (g) (6) (A) (i)	Topographic maps at a scale of 1:24,000 that depict directions from which the project would be seen, the view areas most sensitive to the potential visual impacts of the project, and the locations where photographs were taken for (g)(6)(C); and	Figure 6.13-20, Figure 6.13-21, Figure 6.13-22, Figure 6.13-24, Figure 6.13-26, Figure 6.13-29, Figure 6.13-32	Yes	
Appendix B (g) (6) (A) (ii)	Description of the existing visual properties of the topography, vegetation, and any modifications to the landscape as a result of human activities, including existing water vapor plumes, above-ground electrical transmission lines, and nighttime lighting levels in the project viewshed.	pp. 6.13-12 through 22, Section 6.13.3	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Visual Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Mark R. Hamblin
 Technical Senior: Dale Edwards

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (B)	An assessment of the visual quality of those areas that would be affected by the proposed project. For projects proposed to be located within the coastal zone, the assessment should also describe how the proposed project would be sited to protect views to and along the ocean and scenic coastal areas, would minimize the alteration of natural land forms, would be visually compatible with the character of surrounding areas.	p. 6.13-18, Section 6.13.3.3. pp. 6.13-37 through 77, Sections 6.13.7 through 8.	Yes	
Appendix B (g) (6) (C)	In consultation with Energy Commission staff, identify: i) any designated scenic roadways or scenic corridors and any visually sensitive areas that would be affected by the proposed project, including recreational and residential areas; and ii) the locations of the key observation points to represent the most critical viewing locations from which to conduct detailed analyses of the visual impacts of the proposed project. Indicate the approximate number of people using each of these sensitive areas and the estimated number of residences with views of the project. Also identify any major public roadways and trails of local importance that would be visually impacted by the project and indicate the types of travelers (e.g., local residents, recreationists, workers, commuters, etc.) and the approximate number of vehicles, bicyclists, and/or hikers per day.	pp. 6.13-37 through 77, Section 6.13.7.	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Visual Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Mark R. Hamblin
 Technical Senior: Dale Edwards

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (D)	A table providing the dimensions (height, length, and width, or diameter) and, proposed color(s), materials, finishes, patterns, and other proposed design characteristics of each major component visible from off the project site, including any project-related electrical transmission line and/or offsite aboveground pipelines and metering stations.	pp. 6.13-12 through 17, Section 6.13.3	Yes	
Appendix B (g) (6) (E)	Provide the cooling tower and heat recovery steam generator (HRSG) exhaust design parameters that affect visible plume formation. For the cooling tower, data shall include heat rejection rate, exhaust temperature, exhaust mass flow rate, liquid to gas mass flow ratio, and, if the tower is plume-abated, moisture content (percent by weight) or plume-abated fogging curve(s). The parameters shall account for a range of ambient conditions (temperature and relative humidity) and proposed operating scenarios, such as duct firing and shutting down individual cells. For the heat recovery steam generator exhausts, data shall include moisture content (percent by weight), exhaust mass flow rate, and exhaust temperature. The parameters must correspond to full-load operating conditions at specified ambient conditions, and shall account for proposed operating scenarios, such as power augmentation (i.e., evaporative coolers, inlet foggers, or steam injection) and duct firing, or proposed HRSG visible plume abatement, such as the use of an economizer bypass. For simple-cycle projects, provide analogous data for the exhaust stack(s).	p. 6.13-22, Table 6.13-2. Vol. II, Appendix 6.2-1.	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Visual Resources
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Mark R. Hamblin
 Technical Senior: Dale Edwards

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (F)	Provide: i) full-page color photographic reproductions of the existing site, and ii) full-page color simulations of the proposed project at life-size scale when the picture is held 10 inches from the viewer's eyes, including any project-related electrical transmission lines, in the existing setting from each key observation point. If any landscaping is proposed to comply with zoning requirements or to mitigate visual impacts, include the landscaping in simulation(s) representing sensitive area views, depicting the landscaping five years after installation; and estimate the expected time until maturity is reached.	Figure 6.13-23, Figure 6.13-25, Figure 6.13-27, Figure 6.13-28, Figure 6.13-30, Figure 6.13-31.	Yes	
Appendix B (g) (6) (G)	An assessment of the visual impacts of the project, including light, glare, and any modeling of visible plumes. Include a description of the method and identify any computer model used to assess the impacts. Provide an estimate of the expected frequency and dimensions (height, length, and width) of the visible cooling tower and/or exhaust stack plumes. Provide the supporting assumptions, meteorological data, operating parameters, and calculations used.	pp. 6.13-21 through 22, Table 6.13-2.	Yes	
Appendix B (g) (6) (H)	If any landscaping is proposed to reduce the visual impacts of the project, provide a conceptual landscaping plan at a 1:40 scale (1"=40'). Include information on the type of plant species proposed, their size, quantity, and spacing at planting, expected heights at 5 years and maturity, and expected growth rates.	Figure 6.13-17. pp. 6.13-18 through 21, Section 6.13.3.4	Yes	

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 Project Manager: Christopher Meyer

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	pp. 6.9-6 through 14, Table 6.9-1. pp. 6.13-80 through 81, Section 6.13.12.	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	pp. 6.9-11 through 12, Section 6.9.2.6. Table 6.9-3	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	pp. 6.9-12, Table 6.9-3	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	N/A	N/A	

Adequacy Issue: Adequate Inadequate
 Technical Area: Waste Management
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Casey Weaver
 Technical Senior: Paul Marshall

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (1) (C)	A detailed description of the design, construction and operation of the facilities, specifically including the power generation, cooling, water supply and treatment, waste handling and control, pollution control, fuel handling, and safety, emergency and auxiliary systems, and fuel types and fuel use scenarios; and	Section 2.3, pp. 2-11 to 35 Appendices 2-1, 2-2 and 2-6	Yes	
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Section 4.0, pp. 4-1 and 2	Yes	
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	pp. 6.14-1 to 17	Yes	
Appendix B (g) (12) (A)	A Phase I Environmental Site Assessment (ESA) for the proposed power plant site using methods prescribed by the American Society for Testing and Materials (ASTM) document entitled "Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process" (Designation: E 1527-93, May 1993), which is incorporated by reference in its entirety; or an equivalent method agreed upon by the applicant and the CEC Staff that provides similar documentation of the potential level and extent of site contamination. The Phase I ESA shall have been completed no earlier than one year prior to the filing of the AFC.	Section 6.14.1.1, p. 6.14-2 Appendix 6.14-1	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Waste Management
 Project Manager: Christopher Meyer

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Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (12) (B)	A description of each waste stream estimated to be generated during project construction and operation, including origin, hazardous or nonhazardous classification pursuant to Title 22, California Code of Regulations, § 66261.20 et seq., chemical composition, estimated annual weight or volume generated, and estimated frequency of generation.	pp. 6.15-6 and 7 Table 6.15-1 pp. 6.14-8 to 12 pp. 6.14-13 Table 6.14-3	Yes	
Appendix B (g) (12) (C)	A description of all waste disposal sites which may feasibly be used for disposal of project wastes. For each site, include the name, location, classification under Title 23, California Code of Regulations, § 2530 et seq., the daily or annual permitted capacity, daily or annual amounts of waste currently being accepted, the estimated closure date and remaining capacity, and a description of any enforcement action taken by local or state agencies due to waste disposal activities at the site.	pp. 6.14-3 to 5 Table 6.14-1	Yes	
Appendix B (g) (12) (D)	A description of management methods for each waste stream, including methods used to minimize waste generation, length of on- and off-site waste storage, re-use and recycling opportunities, waste treatment methods used, and use of contractors for treatment.	pp. 6.14-8 and 9 Table 6.14-2 pp. 6.14-15 to 17	Yes	
Appendix B (h) (1) (B)	A discussion of any measures proposed to improve adverse site conditions.	pp. 6.14-16 and 17 Section 6.14.2.4	Yes	
Appendix B (h) (1) (D) (v)	The waste disposal system and on-site disposal sites;	Section 2.3.8.1, p. 2-22	Yes	

Adequacy Issue: Adequate Inadequate
 Technical Area: Waste Management
 Project Manager: Christopher Meyer

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Revision No. 0 Date March 17, 2008
 Project: Avenal Energy Technical Staff: Casey Weaver
 Docket: 08-AFC-1 Technical Senior: Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 6.14-4	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 6.14-4	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 6.14-5	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 3.0, p. 3-1 Fig 3.0-1	Yes	

Adequacy Issue: Adequate _____ Inadequate X
 Technical Area: Water Resources
 Project Manager: Christopher Meyer

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 Technical Staff: Casey Weaver
 Technical Senior: Paul Marshall

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 1.1, p. 1-2 Section 1.5, p. 1-3 Section 6.1.2, p. 6-2 Section 6.1.3, p. 6-3 Section 6.1.4, p. 6.4 pp. 6.5-2 to17	Yes	
Appendix B (g) (14) (A)	All the information required to apply for the following permits, if applicable, including:	-----		
Appendix B (g) (14) (A) (i)	Waste Discharge Requirements; National Pollutant Discharge Elimination System Permit; and/or a Section 401 Certification or Waiver from the appropriate Regional Water Quality Control Board (RWQCB);	Section 2.3.7.8, p. 2-21 Section 6.5, p. 6.5-2 Section 6.5.2.2, p. 6.5-14	Yes	
Appendix B (g) (14) (A) (ii)	Construction and Industrial Waste Discharge and/or Industrial Pretreatment permits from wastewater treatment agencies;	Appendix 6.5-1.1 and 1.2	Yes	
Appendix B (g) (14) (A) (iii)	Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers; and	N/A		
Appendix B (g) (14) (A) (iv)	Underground Injection Control Permit(s) from the U.S. Environmental Protection Agency, California Division of Oil and Gas, and RWQCB.	N/A		
Appendix B (g) (14) (B)	A detailed description of the hydrologic setting of the project. The information shall include a narrative discussion and on maps at a scale of 1:24,000 (or appropriate scale approved by staff), describing the chemical and physical characteristics of the following nearby water bodies that may be affected by the proposed project:	-----		

Adequacy Issue: Adequate _____ Inadequate X
 Technical Area: Water Resources
 Project Manager: Christopher Meyer

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Project: Avenal Energy
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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (B) (i)	Ground water bodies and related geologic structures;	Section 6.5.1.3, p. 6.5-5 and 6.5-6 Appendix 6.5-2	Yes	
Appendix B (g) (14) (B) (ii)	Surface water bodies;	p.6.5-4 Appendix 6.5-1.2 Figure 6.5-1A	No	Surface water bodies in the project vicinity need to be identified on maps at a scale of 1:24,000 and a narrative discussion of the water bodies must be provided. Appendix 6.5.1.2 identifies an unnamed intermittent pond that receives storm flows but there is no map showing it or other text discussing it. San Luis Canal passes within 100 feet of the site's eastern boundary. A potable water treatment facility with "ponds" occurs adjacent to the northeast corner of the site. All three features (i.e., intermittent pond receiving storm flows, San Luis Canal, and ponds at water treatment facility) need to be shown on maps and discussed.
Appendix B (g) (14) (B) (iii)	Water inundation zones, such as the 100-year flood plain and tsunami run-up zones;	Section 6.3.1.5.3, p. 6.3-8 p. 6.5-5	No	The limits of inundation caused by the 100 year flood need to be identified on maps at a scale of 1:24,000 and a narrative discussion of the delineation relative to the project site must be provided.
Appendix B (g) (14) (B) (iv)	Flood control facilities (existing and proposed); and	Section 2.3.17.2 and 3, p. 2-44	No	Flood control facilities in the project vicinity need to be identified on maps at a scale of 1:24,000 and a narrative discussion of the flood control facilities must be provided.
Appendix B (g) (14) (B) (v)	Groundwater wells within ½ mile if the project will include pumping.		No	All groundwater wells located within ½ mile of the project need to be identified on maps at a scale of 1:24,000 and a narrative discussion of the groundwater wells must be provided.
Appendix B (g) (14) (C)	A description of the water to be used and discharged by the project. This information shall include:	_____		

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 Technical Area: Water Resources
 Project Manager: Christopher Meyer

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 Technical Senior: Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (C) (i)	Source(s) of the primary and back-up water supplies and the rationale for their selection;	Section 1.5.5, p.1-7 Section 1.8.4, p. 1-12 Section 2.3.7.1, p. 2-16 Section 2.3.15.5, p. 2-40 Section 6.5, p.6.5-1 Section 6.5.1.1, p. 6.5-2 Section 6.5.2.2, p. 6.5-13 to 15	Yes	
Appendix B (g) (14) (C) (ii)	The expected physical and chemical characteristics of the source and discharge water(s) including identification of both organic and inorganic constituents before and after any project-related treatment. For source waters with seasonal variation, provide seasonal ranges of the expected physical and chemical characteristics. Provide copies of background material used to create this description (e.g., laboratory analysis);	Section 2.3.7.3, p. 2-18 p. 2-19 Table 2.3-2 p. 6.5-8 Table 6.5-3	Yes	
Appendix B (g) (14) (C) (iii)	Average and maximum daily and annual water demand and waste water discharge for both the construction and operation phases of the project;	Section 1.8.4, p. 1-11 p. 2-17 Table 2.3-1	Yes	
Appendix B (g) (14) (C) (iv)	A detailed description of all facilities to be used in water conveyance (from primary source to the power plant site), water treatment, and wastewater discharge. Include a water mass balance diagram;	Section 2.3.7.3, p. 2-18 Appendix 2-6 Appendix 2-8	Yes	

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 Technical Area: Water Resources
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Appendix B (g) (14) (C) (v)	For all water supplies intended for industrial uses to be provided from public or private water purveyors, a letter of intent or will-serve letter indicating that the purveyor is willing to serve the project, has adequate supplies available for the life of the project, and any conditions or restrictions under which water will be provided. In the event that a will-serve letter or letter of intent can not be provided, identify the most likely water purveyor and discuss the necessary assurances from the water purveyor to serve the project;	Appendix 6.5-3	Yes	
Appendix B (g) (14) (C) (vi)	For all water supplied which necessitates transfers and/or exchanges at any point, identify all parties and contracts/agreements involved, the primary source for the transfer and/or exchange water (e.g., surface water, groundwater), and provide the status of all appropriate agencies' approvals for the proposed use, environmental impact analysis on the specific transfers and/or exchanges required to obtain the proposed supplies, a copy of any agency regulations that govern the use of the water, and an explanation of how the project complies with the agency regulation(s);		No	Provide documentation that demonstrates the farmer/landowner supplying the backup groundwater agrees to reducing his groundwater use for farming should the backup supply be needed for project consumption. In addition, provide documentation that the farmer/landowner is capable of meeting plant water use requirements and that the transfer of groundwater for the proposed use is allowed. For both items, please provide the information per the requirements of Appendix B (g) (14) (C) (vi).
Appendix B (g) (14) (C) (vii)	Provide water mass balance and heat balance diagrams for both average and maximum flows that include all process and/or ancillary water supplies and wastewater streams. Highlight any water conservation measures on the diagram and the amount that they reduce water demand; and	Table 2.3-5 Table 2.6-1 Appendix 2-8	Yes	

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 Technical Area: Water Resources
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Appendix B (g) (14) (C) (viii)	<p>For all projects which have a discharge, provide a copy of the will-serve letter, permit or contract with the public or private entity that will be accepting the wastewater and contact storm water from the project. The letter, permit or contract, if possible, shall identify the discharge volumes and the chemical or physical characteristics under which the wastewater and contact storm water will be accepted.</p> <p>In the event that a will-serve letter, permit, or contract cannot be provided, identify the most likely wastewater/storm water entity and discuss why the applicant was unable to secure the necessary assurances to serve the project's wastewater/storm water needs. Also, discuss the term of the wastewater service to the project, whether the wastewater entity has adequate permit capacity for the volume of wastewater from the project and has adequate permit levels for the chemical/physical characteristics of the project's wastewater and storm water for the life of the project, and any issues or conditions/restrictions the wastewater entity may impose on the project.</p>	Appendix 6.5-1.2	No	<p>The unsubmitted Notice of Intent form provided in the Appendix identifies an "unnamed intermittent pond" as the receiver of stormwater. Provide all information required in Siting Regulations Appendix B (g) (14) (C) (viii) that pertain to this pond that is identified as accepting wastewater from the project.</p> <p>In addition, disposal of sanitary waste is proposed to be accomplished using an on-site sewage disposal system. Provide system design and required permit for onsite sewage disposal.</p>
Appendix B (g) (14) (D)	Identify all project elements associated with stormwater drainage, including a description of the following:	-----		
Appendix B (g) (14) (D) (i)	Monthly and/or seasonal precipitation and stormwater runoff and drainage patterns for the proposed site and surrounding area that may be affected by the project's construction and operation;	Section 6.5.1.2, p. 6.5-4 Section 6.5.2.1, p. 6.5-11	Yes	

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 Technical Area: Water Resources
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 Docket: 08-AFC-1 Technical Senior: Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (D) (ii)	Drainage facilities and the design criteria used for the plant site and ancillary facilities, including but not limited to capacity of designed system, design storm, and estimated runoff;	Section 2.3.7.9, p. 2-21 Section 2.3.17, pp. 2-44 and 2-45 Section 6.5.2.1, p. 6.5-11 Appendix 2-1	Yes	
Appendix B (g) (14) (D) (iii)	All assumptions and calculations used to calculate runoff and to estimate changes in flow rates between pre- and post construction; and	p. 6.5-12 Section 6.5.2.2. p. 6.5-14	Yes	
Appendix B (g) (14) (D) (iv)	A copy of applicable regional and local requirements regulating the drainage systems, and a discussion of how the project's drainage design complies with these requirements.	p. 6.5-19 Table 6.5-5	Yes	
Appendix B (g) (14) (E)	An impacts analysis of the proposed project on water resources and a discussion of conformance with water-related LORS and policy. This discussion shall include:	pp. 6.5-13 and 6.5-15 Section 6.5.2.4, p. 6.5-17 Section 6.5.5, p. 6.5-17	Yes	
Appendix B (g) (14) (E) (i)	The effects of project demand on the water supply and other users of this source, including, but not limited to, water availability for other uses during construction or after the power plant begins operation, consistency of the water use with applicable RWQCB basin plans or other applicable resource management plans, and any changes in the physical or chemical conditions of existing water supplies as a result of water use by the power plant;	p. 6.5-15 Section 6.5.2.4, p. 6.5-17	Yes	

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 Technical Area: Water Resources
 Project Manager: Christopher Meyer

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Appendix B (g) (14) (E) (ii)	If the project will pump groundwater, an estimation of aquifer drawdown based on a computer modeling study shall be conducted by a professional geologist and include the estimated drawdown on neighboring wells within 0.5 mile of the proposed well(s), any effects on the migration of groundwater contaminants, and the likelihood of any changes in existing physical or chemical conditions of groundwater resources shall be provided;	p. 6.5-16	No	<p>A map was provided that shows the locations of the three proposed backup water supply wells, but it does not show any other wells in the site vicinity. Provide a map that shows all wells within ½ mile of all wells considered for project water supply.</p> <p>For the wells considered to supply backup water, provide an aquifer drawdown estimate based on a computer modeling study conducted by a professional geologist.</p> <p>Provide a discussion regarding the potential for migration of groundwater contaminants and any changes in physical or chemical conditions of groundwater resources due to groundwater withdrawal.</p>
Appendix B (g) (14) (iii)	The effects of construction activities and plant operation on water quality and to what extent these effects could be mitigated by best management practices;	pp. 2-44 and 2-45 Appendix 2-1	Yes	
Appendix B (g) (14) (iv)	If not using a zero liquid discharge project design for cooling and process waters, include the effects of the proposed wastewater disposal method on receiving waters, the feasibility of using pre-treatment techniques to reduce impacts, and beneficial uses of the receiving waters. Include an explanation why the zero liquid discharge process is “environmentally undesirable,” or “economically unsound;”	N/A		

Adequacy Issue: Adequate _____ Inadequate X
 Technical Area: Water Resources
 Project Manager: Christopher Meyer

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (v)	If using fresh water, include a discussion of the cumulative impacts, alternative water supply sources and alternative cooling technologies considered as part of the project design. Include an explanation of why alternative water supplies and alternative cooling are “environmentally undesirable,” or “economically unsound;”	Section 2.3.7, p. 2-17 Section 2.3.15.5, p. 2-40 Section 5.4, pp. 5-7 to 5-8	Yes	
Appendix B (g) (14) (vi)	The effects of the project on the 100-year flood plain, flooding potential of adjacent lands or water bodies, or other water inundation zones; and	p. 6.5-5	No	Discuss the potential for site flooding resulting from failure of San Luis Canal levee. Provide a map showing the 100 year flood boundary and location of project site relative to the boundary.
Appendix B (g) (14) (vii)	All assumptions, evidence, references, and calculations used in the analysis to assess these effects.	p. 6.5-5	No	Provide documentation including all assumptions, evidence, references, and calculations used in the analysis to assess the effects of the project on the 100-year flood plain, flooding potential of adjacent lands or water bodies, or other water inundation zones.
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	p. 2-57, Table 2.5-1 p. 6.5-19 and 6.5-20, Table 6.5-5	Yes	

Adequacy Issue: Adequate _____ Inadequate X
 Technical Area: Water Resources
 Project Manager: Christopher Meyer

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Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	p. 2-64, Table 2.5-5 p. 6.5-21, Table 6.5-6	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	p. 2-64, Table 2.5-5 p. 6.5-21, Table 6.5-6	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 3.0, p.3.1, Figure 3.0-1	No	Provide an explanation of steps taken or plan to take to obtain permits that are outside the authority of the commission.

Adequacy Issue: Adequate Inadequate
 Technical Area: Worker Safety
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Rick Tyler
 Technical Senior: Rick Tyler

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	6.17	Yes	
Appendix B (g) (11) (A)	A description of the safety training programs which will be required for construction and operation personnel.	Section 6.17.2.2.7	Yes	
Appendix B (g) (11) (B)	A complete description of the fuel handling system and the fire suppression system.	Section 6.17.2.2.8	Yes	
Appendix B (g) (11) (C)	Provide draft outlines of the Construction Health and Safety Program and the Operation Health and Safety Program, as follows:	Sections 6.17.2.2	Yes	
	Construction Health and Safety Program: * Injury and Illness Prevention Plan (8 Cal. Code Regs., § 1509);	Appendix 6.17-1	Yes	
	* Fire Protection and Prevention Plan (8 Cal. Code Regs., § 1920);	Sections 6.17.2.2.4	Yes	
	* Personal Protective Equipment Program (8 Cal. Code Regs., §§ 1514-1522)	Sections 6.17.2.2.6	Yes	
	Operation Health and Safety Program: * Injury and Illness Prevention Program (8 Cal. Code Regs., § 3203);	Sections 6.17.2.2	Yes	
	* Fire Prevention Plan (8 Cal. Code Regs., § 3221);	Sections 6.17.2.2.4	Yes	
	* Emergency Action Plan (8 Cal. Code Regs., § 3220);	Sections 6.17.2.2.5 6.17.2.1.2	Yes	
Personal Protective Equipment Program (8 Cal. Code Regs., §§ 3401-3411).	Sections 6.17.2.2.6	Yes		

Adequacy Issue: Adequate Inadequate
 Technical Area: Worker Safety
 Project Manager: Christopher Meyer

DATA ADEQUACY WORKSHEET

Revision No. 0 Date March 17, 2008
 Technical Staff: Rick Tyler
 Technical Senior: Rick Tyler

Project: Avenal Energy
 Docket: 08-AFC-1

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 6.17- 2	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 6.17- 3	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 6.17- 3	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 6.17-5	Yes	

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