

Memorandum

Date: July 21, 2009
Telephone: (916) 654-4996

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

DOCKET	
09-AFC-1	
DATE	<u>JUL 21 2009</u>
RECD	<u>JUL 21 2009</u>

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

Subject: **WATSON COGENERATION STEAM AND ELECTRIC RELIABILITY PROJECT, REVISED DATA ADEQUACY RECOMMENDATION (09-AFC-01)**

On March 19, 2009, the California Energy Commission received an Application for Certification (AFC) from the Watson Cogeneration Company. The Watson Cogeneration Steam and Electric Reliability Project (project) is a proposed expansion of a steam and electrical generating (cogeneration) facility that is located in the City of Carson in Los Angeles County. The project site is located within the boundary of the existing Watson Cogeneration Facility, which is a 21.7-acre area and is part of a larger parcel containing the BP Carson Refinery. Watson Cogeneration Facility provides electricity required for refinery operations with the remaining capacity available for sale in the regional electricity market. The existing Watson Cogeneration Facility was licensed by the Energy Commission in 1986 (85-AFC-1). The project proposes to increase the existing capacity of the 385-megawatt (MW) Watson Cogeneration Facility by approximately 85 MW to a total output of 470 MW.

Staff's April 17, 2009 initial data adequacy review of the Watson Cogeneration Company's AFC determined that it did 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. Specifically, the AFC was deficient in nine of 23 areas: Air Quality, Biological Resources, Land Use, Power Plant Reliability, Socioeconomics, Traffic and Transportation, Transmission System Design (Engineering), Visual Resources, and Water Resources. At the April 22, 2009 Business Meeting, the Energy Commission accepted staff's initial data adequacy recommendation.

On June 29, 2009, the Watson Cogeneration Company filed their AFC Supplement. Staff has reviewed the supplemental information and believes the AFC now meets the above listed requirements in all nine of the previously deficient technical disciplines. Attached is a summary table and data adequacy worksheets for the nine technical disciplines previously determined to be deficient reflecting that the supplemental information submitted by the applicant achieves data adequacy. At the Energy Commission's business meeting on July 29, 2009, I will recommend that the Energy Commission accept the Watson Cogeneration Steam and Electric Reliability Project AFC with the supplemental information as complete and request that a Committee be appointed. If you have any questions, please call Alan Solomon, staff's Project Manager, at (916) 653-8236.

Attachments

Attachment A
Overview of Energy Commission Staff's
Revised Data Adequacy Determination
Watson Cogeneration Steam and Electric Reliability Project
09-AFC-01

Technical Area	Attachment B Page No.	Adequate ?
AIR QUALITY	4	<u>YES</u> NO
BIOLOGICAL RESOURCES.....	11	<u>YES</u> NO
LAND USE	22	<u>YES</u> NO
RELIABILITY	26	<u>YES</u> NO
SOCIOECONOMICS	29	<u>YES</u> NO
TRAFFIC AND TRANSPORTATION	35	<u>YES</u> NO
TRANSMISSION SYSTEM DESIGN	40	<u>YES</u> NO
VISUAL RESOURCES.....	45	<u>YES</u> NO
WATER RESOURCES	52	<u>YES</u> NO

ATTACHMENT B

**ENERGY COMMISSION STAFF'S
Data Adequacy Determination
Revised to Reflect AFC Supplement**

**Watson Cogeneration Steam and Electric Reliability Project
09-AFC-01**

July 21, 2009

Adequacy Issue: Adequate X Inadequate _____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date July 21, 2009

Technical Area: **Air Quality**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Steve Radis

Project Manager: Alan Solomon

Docket: 09-AFC-01

Technical Senior: Mathew 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 5.2 (all pages), Appendices I and O.	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.	Section 5.2, Section 5.16, Appendices I and O. <u>Appendix A, AFC Supplement</u>	NO YES	Please provide a completeness letter from the South Coast Air Quality Management District (SCAQMD).
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.	Section 5.2.1, page 5.2-1; Section 5.2.2.2, pages 5.2-3 through 5.2-5; Section 5.2.5.3, page 5.2-19; Appendices I-A, I-B	YES	
Appendix B (g) (8) (C)	A description of the control technologies proposed to limit the emission of criteria pollutants.	Section 5.2.4, pages 5.2-16 through 5.2-18; Appendix IE	YES	
Appendix B (g) (8) (D)	A description of the cooling system, the estimated cooling tower drift rate, the rate of water flow through the cooling tower, and the maximum concentrations of total dissolved solids.	Section 5.2, 5.2.2.2, pages 5.2-3 through 5.2-4; Appendix I-A	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.	Section 5.2.3, pages 5.2-7 through 5.2-12, Appendix IA	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.	Section 5.2.3, pages 5.2-7 through 5.2-16; Section 5.2.5.8, pages 5.2-30 through 5.2-36	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 5.2.5.8, pages 5.2-33 through 5.2-34	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 5.2.5.6, pages 5.2-25 through 5.2-28	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.	Section 5.2.5.1, pages 5.2-18 through 5.2-19; Section 5.2.5.5, pages 5.2-20 through 5.2-22	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.	Section 5.2.5.5, pages 5.2-20 through 5.2-22	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.	Section 5.2.5.5, pages 5.2-20 through 5.2-22; Appendix I-B (Figures I-B-6 through I-B-10)	YES	
Appendix B (g) (8) (I)	An evaluation of the project's direct and cumulative air quality impacts, consisting of the following:	Section 5.2.3.6, pages 5.2-13 through 5.2-16; Section 5.2.5, pages 5.2-18 through 5.2-36; Appendix IB, Appendix I-G	YES	

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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 5.2.3.6, pages 5.2-13 through 5.2-16; Appendix I-B and Appendix I-D	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 5.2.5, pages 5.2-18 through 5.2-36; Appendix IB	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 I-G	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} .	Section 5.2.5, pages 5.2-18 through 5.2-36; Appendix IB	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:	Appendix I-F	YES	
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	Appendix I-F; and 5.2.3.4, page 5.2-12	YES	
Appendix B (g) (8) (J) (ii)	Potential offset sources, including location, and quantity of emission reductions;	Appendix I-F; and 5.2.3.4, page 5.2-12 <u>Confidential filing</u>	NO <u>YES</u>	The AFC does not contain adequate information on VOC Emission Reduction Credits (ERCs), specifically identification of prospective VOC-ERC sources and locations of those sources.

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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.	Appendix I-F; and 5.2.3.4, page 5.2-12	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 5.2.6, pages 5.2-36 through 5.2-39	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 5.2.6.2, pages 5.2-45 to 5.2-46	YES	

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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 5.2.6.2, pages 5.2-45 to 5.2-46	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 5.2.6.3, page 5.2-46	YES	

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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 5.6.1, pp. 5.6-1 through 5.6-2 Direct and indirect impacts: Section 5.6.2, p. 5.6-18 through 5.6-22 Cumulative impacts: Section 5.6.3, pp. 5.6-22 through 5.6-23 Mitigation measures: Section 5.6.5, p. 5.6-23	YES YES YES YES	
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 5.6.1.6, pp. 5.6-9 through 5.6-10 Regional vicinity maps: <u>Revised Figure 5.6-1, Appendix B, AFC Supplement</u>	NO <u>YES</u> NO <u>YES</u>	Please expand the review of sensitive biological resources to describe resources within ten (10) miles of the project. Please include a regional vicinity map that shows biological resources within ten (10) miles of the project.
Appendix B (g) (13) (A) (i)	species listed under state or federal Endangered Species Acts;	Federal and state Endangered Species: <u>Revised Figure 5.6-1 and Revised Table 5.6-1, Appendix B, AFC Supplement</u>	NO <u>YES</u>	Please include species listed under the state or federal Endangered Species Acts within ten (10) miles of the project.

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 Docket: 09-AFC-1

Revision No. 1 Date July 21, 2009
 Technical Staff: Brian McCollough
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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: <u>Revised Figure 5.6-1, Appendix B, AFC Supplement</u>	NO <u>YES</u>	Please include areas of critical and special concern within ten (10) miles of the project.
Appendix B (g) (13) (A) (iii)	species identified as state Fully Protected;	State Fully Protected species: <u>Revised Figure 5.6-1 and Revised Table 5.6-1, Appendix B, AFC Supplement</u>	NO <u>YES</u>	Please include fully protected species within ten (10) miles of the project.
Appendix B (g) (13) (A) (iv)	species covered by Migratory Bird Treaty Act;	Migratory Bird Act species: <u>Revised Figure 5.6-1 and Revised Table 5.6-1, Appendix B, AFC Supplement</u>	NO <u>YES</u>	Please include Migratory Bird Act species within ten (10) miles of the project.
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: <u>Revised Figure 5.6-1 and Revised Table 5.6-1, Appendix B, AFC Supplement</u>	NO <u>YES</u>	Please include species and habitats identified in the California Natural Diversity Database within a radius of ten (10) miles of the project.
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: <u>Revised Figure 5.6-1 and Table B-1, Appendix B, AFC Supplement</u>	NO <u>YES</u>	Please include fish and wildlife of commercial or recreational value within ten (10) miles of the project.
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: <u>Table 5.6-2, p. 5.6-8</u>	YES	

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Appendix B (g) (13) (B) (i)	Detailed maps at a scale of 1:6,000 or color aerial photographs taken at a recommended scale of 1 inch equals 500 feet (1:6,000) with a 30 percent overlap that show the proposed project site and related facilities, biological resources including, but not limited to, those found during project-related field surveys and in records from the California Natural Diversity Database, and the associated areas where biological surveys were conducted. Label the biological resources and survey areas as well as the project facilities;	Map of proposed project site: <u>Figure B-1. Appendix B, AFC Supplement.</u> Map of biological resources: <u>Figure B-1. Appendix B, AFC Supplement.</u> Map of survey area: <u>Figure B-1. Appendix B, AFC Supplement.</u>	NO <u>YES</u> NO <u>YES</u> NO <u>YES</u>	Please include a detailed map at a scale of 1:6,000 that shows the project site and biological resources, including those found during surveys and in records from the California Natural Diversity Database.
Appendix B (g) (13) (B) (ii)	A depiction of the extent of the thermal plume at the surface of the water if cooling water is proposed to be discharged to a water source. Provide the location for the intake and discharge structures on an aerial photograph(s) or detailed maps. Water sources include, but are not limited to, waterways, lakes, impoundments, oceans, bays, rivers, and estuaries; and	Depiction of the thermal plume: Not applicable Location of intake and discharge structures: Not applicable	YES YES	

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Appendix B (g) (13) (B) (iii)	An aerial photo or wetlands delineation maps at a scale of (1:2,400) showing any potential jurisdictional and non-jurisdictional wetlands delineated out to 250 feet from the edge of disturbance if wetlands occur within 250 feet of the project site and/or related facilities that would be included with the US Army Corps of Engineers Section 404 Permit application. For projects proposed to be located within the coastal zone, also provide aerial photographs or maps as described above that identify wetlands as defined by the Coastal Act.	Potential jurisdictional or non-jurisdictional wetlands map: Figure 5.6-1 Coastal zone wetlands map: Not applicable	YES YES	
Appendix B (g) (13) (C)	A discussion of the biological resources at the proposed project site and related facilities. Related facilities include, but are not limited to, laydown and parking areas, gas and water supply pipelines, transmission lines, and roads. The discussion shall address the distribution of vegetation community types, denning or nesting sites, population concentrations, migration corridors, breeding habitats, and other appropriate biological resources including the following:	Discussion of biological resources at project site: Sections 5.6.1.2 and 5.6.1.5, pp. 5.6-8 through 5.6-9 Discussion of biological resources at related facilities: Section 5.6.2.2, p. 5.6-22	YES YES	
Appendix B (g) (13) (C) (i)	A list of all the species actually observed;	List of species observed: Table 5.6-2, p. 5.6-8	YES	
Appendix B (g) (13) (C) (ii)	A list of sensitive species and habitats with a potential to occur (as defined in (A) above); and	Sensitive species and habitats with potential to occur: Table 5.6-1, pp. 5.6-3 through 5.6-7	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.	<p>Intake structure characteristics: Not applicable</p> <p>Thermal plume description: Not applicable</p> <p>Aquatic habitat and biological resources affected: Not applicable</p> <p>Impingement and entrainment analysis: Not applicable</p>	<p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p>	

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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 5.6.1.1, p. 5.6-2 Copies of CNDDDB records and field survey forms: <u>AFC Supplement, Response to Comments, page 6.</u> Qualifications of biologists: Appendix N	YES NO <u>YES</u> YES	Please include copies of the CNDDDB records and field survey forms completed for this project.
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 5.6.1.1, p. 5.6-2	YES	

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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	YES YES	
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: Section 5.6.1.4, p. 5.6-9	YES	
Appendix B (g) (13) (E)	Impacts discussion of the following:			

Adequacy Issue: Adequate X Inadequate _____

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Technical Area: **Biological Resources**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Brian McCollough

Project Manager: Alan Solomon

Docket: 09-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) (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 5.6.2.1, pp. 5.6-19 through 5.6-23 Air emission impacts on sensitive species: Section 5.6.2.1, p. 5.6-20	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	YES YES	
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	YES YES	
Appendix B (g) (13) (F)	A discussion of all feasible mitigation measures including, but not limited to the following:			

Adequacy Issue: Adequate X Inadequate _____
 Technical Area: **Biological Resources**
 Project Manager: Alan Solomon

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 Technical Staff: Brian McCollough
 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) (13) (F) (i)	All measures proposed to avoid and/or reduce adverse impacts to biological resources;	Measures to avoid and reduce impacts to biological resources: Section 5.6.5, p. 5.6-23. <u>AFC Supplement, Response to Comments, page 7-8.</u>	NO <u>YES</u>	Please include mitigation measures that will be implemented if the bat species that may use the maintenance building currently are found during the pre-disturbance project site survey.
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;	Off-site habitat compensation mitigation: Section 5.6.5, p. 5.6-23	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	YES	
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	YES	
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 5.6.4, p. 5.6-23	YES	
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 5.6.5, p. 5.6-23	YES	

Adequacy Issue: Adequate X Inadequate _____

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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) (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, the National Marine Fisheries Service, the U.S. Army Corps of Engineers, the California Department of Fish and Game, and the Regional Water Quality Control Board will be required for the proposed project.	Contact with state and federal agencies regarding permits: Section 5.6.6.4, p. 5.6-28	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 identifying applicable biological resources laws, ordinances, regulations, and standards: table 5.6-3, pp. 5.6-23 through 5.6-24	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: sections 5.6.6.1 through 5.6.6.3, pp. 5.6-25 through 5.6-27	YES	

Adequacy Issue: Adequate Inadequate

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Technical Area: **Biological Resources**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Brian McCollough

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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) (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: Section 5.6.6.4, p. 5.6-28	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.	Permit schedule: Section 5.6.6.5, p. 5.6-28	YES	

Adequacy Issue: Adequate Inadequate

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Revision No. 1 Date July 21, 2009

Technical Area: **Land Use**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Bob Fiore

Project Manager: Alan Solomon

Docket: 09-AFC-1

Technical Senior: Amanda Stennick

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.	Page 1-1 through 1-2 Section 1.2.1 Page 3-3, Section 3.3 Pages 5.9.1, Section 5.9 Page 5.9-2, Section 5.9.1.2 Page 5.9-7, Section 5.9.1.3 Pages 5.9-10,11 & 12, Section 5.9.2 Pages 5.9-13 through 5.9-14, Section 5.9.3 Page 5.9-15, Section 5.9.4	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:	Pages 5.9-1 through 5.9-9, Sections 5.9.1, 5.9.1.2 and 5.9.1.3 Page 5.9.1.6, Section 5.9.1.6	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;	Pages 5.9-5 through 5.9-9, Section 5.9.1.3	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;	Pages 5.9-13 through 5.9-15, Section 5.9.3	YES	

Adequacy Issue: Adequate X Inadequate _____
 Technical Area: **Land Use** _____
 Project Manager: Alan Solomon

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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) (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	Page 5.9-10, Sections 5.9.1.5 and 5.9.1.6	YES	
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.	<u>Appendix C, Figure C-1 and revised Figure 5.9-3, Supplement to AFC</u>	<u>NO</u> <u>YES</u>	Please provide a legible map with general plan designations for the areas potentially affected by the project.
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.	Pages 5.9-2 through 5.9-9, Section 5.9.1.3 Pages 5.9-13 through 5.9-15, Section 5.9.3	YES	

Adequacy Issue: Adequate Inadequate
 Technical Area: **Land Use**
 Project Manager: Alan Solomon

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 Project: Watson Cogeneration Steam and Electric Reliability Project Technical Staff: Bob Fiore
 Docket: 09-AFC-1 Technical Senior: Amanda Stennick

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) (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.	Page 5.9-2, Section 5.9.1.2	YES	
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:	N/A	N/A	
Appendix B (g) (3) (D) (i)	Crop types, irrigation systems, and any special cultivation practices;	Page 5.4-5, Section 5.4.1.2	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	Page 5.4-5, Section 5.4.1.2	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.	Page 5.4-5, Section 5.4.1.2	YES	

Adequacy Issue: Adequate X Inadequate _____

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Technical Area: **Land Use** _____

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Bob Fiore

Project Manager: Alan Solomon

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Technical Senior: Amanda Stennick

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	Pages 5.9-15 through 5.9-25, Section 5.9.5, Table 5.9-5	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.	Page 5.9-25, Section 5.9.5.4, Table 5.9-6	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.	Page 5.9-25, Section 5.9.5.4, Table 5.9-6	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.	Page 5.9-26, Section 5.9.5.5, Table 5.9-7	YES	

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Revision No. 1 Date July 21, 2009

Technical Area: **Reliability**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Erin Bright

Project Manager: Alan Solomon

Docket: 09-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.	3.4.1, 3.4.2, 3.4.5, 3.4.7, 3.4.8, 3.4.9, 3.4.10, 3.7.1, 3.7.1, 3.9.2, 3.11.1, 3.11.3, 3.11.4, 3.11.7, 3.11.6	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.	3.4.7, 3.7.1, 3.11.6.1	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:	—	—	
Appendix B (h) (3) (B) (i)	Expected overall availability factor, and annual and lifetime capacity factors;	3.11.3, 3.11.4; <u>AFC Supplement, Response to Comments, page 10.</u>	NO <u>YES</u>	Expected annual and lifetime capacity factors
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;	3.4.2, 3.4.5.1, 3.4.5.2, 3.4.7, 3.4.8, 3.7.2, 3.4.9, 3.4.10, 3.11.4.1, 3.11.4.4, 3.11.6	YES	
Appendix B (h) (3) (B) (iii)	Geologic and flood hazards, meteorologic conditions and climatic extremes, and cooling water availability;	3.4.10, 3.11.1, 3.11.1.2	YES	

Adequacy Issue: Adequate Inadequate

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Technical Area: **Reliability**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Erin Bright

Project Manager: Alan Solomon

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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) (3) (B) (iv)	Special design features adopted by the applicant or resource supplier to ensure power plant reliability including equipment redundancy; and	3.9.2, 3.11.3, 3.11.4, 3.11.7	YES	
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	

Adequacy Issue: Adequate Inadequate

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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 X Inadequate _____

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Revision No. 1 Date July 21, 2009

Technical Area: **Socioeconomics**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Joseph Diamond Ph. D.

Project Manager: Alan Solomon

Docket: 09-AFC-1

Technical Senior: Amanda Stennick

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 5.10 Socioeconomics, page 5.10-1. Section 5.10.2 Environmental Consequences, pages 5.10-29 to 5.10-38. Section 5.10.3 Cumulative Effects Analysis, pages 5.10-38 to 5.10-44. Section 5.10.4 Mitigation Measures, page 5.10-44.	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 5.10.1.1 Economy: Labor Force, Employment, and Income, pages 5.10-2 to 5.10-11. Section 5.10.1.4 Public Finances and Fiscal Issues, pages 5.10-28&29.	YES	
Appendix B (g) (7) (A) (ii)	The social characteristics, including population and demographic and community trends;	Section 5.10.1.2 Population, Housing, and Demographics, pages 5.10-11 to 5.10-22.	YES	

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 Technical Area: **Socioeconomics**
 Project Manager: Alan Solomon

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Project: Watson Cogeneration Steam and Electric Reliability Project
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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;	Table 5.10-2 Unemployment Percentages for the State of California; Counties of Kern, Los Angeles, Orange, San Bernardino, and Ventura; and City of Carson, page 5.10-3.	YES	
Appendix B (g) (7) (A) (iv)	Availability of skilled workers by craft required for construction and operation of the project;	Section 5.10.2 Environmental Consequences, pages 5.10-29 to 5.10-30.	YES	
Appendix B (g) (7) (A) (v)	Availability of temporary and permanent housing and current vacancy rate; and	Section 5.10.1.2 Population, Housing, and Demographics, page 5.5.10-13. Section 5.10.2.3 Effects to Population and Housing, Project Construction, page 5.10-33.	YES	
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 5.10.1.3 Public Services and Utilities, pages 5.10-23 to 5.10-28.	YES	

Adequacy Issue: Adequate X Inadequate _____

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Technical Area: **Socioeconomics**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Joseph Diamond Ph. D.

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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)	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 5.10-16 Labor Personnel Requirements by Month, page 5.10-31. Section 5.10.2 Environmental Consequences, Project Operation, page 5.10-30.	YES	
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 5.10.2.3 Effects to Population and Housing, page 5.10-32.	YES	
Appendix B (g) (7) (B) (iii)	An estimate of the potential population increase caused directly and indirectly by the project;	Section 5.10.2.3 Effects to Population and Housing, pages 5.10-32 to 5.10-33. Section 5.10.2.2 Indirect and Induced Economic Effects, page 5.10-32.	NO <u>YES</u>	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 5.10.2.3 Effects to Population and Housing, pages 5.10-32 to 5.10-33.	YES	

Adequacy Issue: Adequate Inadequate

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Technical Area: **Socioeconomics**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Joseph Diamond Ph. D.

Project Manager: Alan Solomon

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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) (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 5.10.1.3 Public Services and Utilities, pages 5.10-23 to 5.10-28. Section 5.10.2.4 Effects to Public Services and Utilities, pages 5.10-33 to 5.10-36.	YES	
Appendix B (g) (7) (B) (vi)	An estimate of applicable school impact fees;	Section 5.10.2.4 Effects to Public Services and Utilities, Schools, page 5.10-34.	YES	
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 5.10.2 Environmental Consequences, Project Construction and Project Operation, page 5-10-30.	YES	
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 5.10.2 Environmental Consequences, Project Construction and Project Operation, page 5-10-30.	YES	
Appendix B (g) (7) (B) (ix)	An estimate of the capital cost (plant and equipment) of the project;	Section 5.10.2 Environmental Consequences, Project Construction, page 5-10-30.	YES	

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Technical Area: **Socioeconomics**

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Technical Senior: Amanda Stennick

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) (x)	An estimate of sales taxes generated during construction and separately during an operational year of the project;	Section 5.10.2.5 Fiscal Effects, Sales Taxes, pages 5.10-36 and 5.10-37.	YES	
Appendix B (g) (7) (B) (xi)	An estimate of property taxes generated during an operational year of the project; and	Section 5.10.2.5 Fiscal Effects, Property Taxes, page 5.10-36.	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 5.10.2 Environmental Consequences, Direct Economic Effects, pages 5.10-29 and 5.10-30. Section 5.10.2.2 Indirect and Induced Economic Effects, page 5.10-32.	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 5.10-19 summary of lers-socioeconomics, page 5.10-45.	YES	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date July 21, 2009

Technical Area: **Socioeconomics**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Joseph Diamond Ph. D.

Project Manager: Alan Solomon

Docket: 09-AFC-1

Technical Senior: Amanda Stennick

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.	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.	Section 5.10.5.4 Agencies and Agency Contacts, pages 5.10-46 and 5.10-47.	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 5.10.5.5 Permits Required and Permit Schedule, page 5.10-47.	N/A.	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date July 21, 2009

Technical Area: **Traffic and Transportation**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: David Flores

Project Manager: Alan Solomon

Docket: 09-AFC-1

Technical Senior: Paula David

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. 5.11-2 & 3 Sec. 5.11.1.1 AFC pg. 5.11-10 through 14, Sec. 5.11.26 AFC pg. 5.11-15 & 16 Sec. 5.11.3 through Sec. 5.11.5	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 5.11-1	YES	

Adequacy Issue: Adequate X Inadequate _____
 Technical Area: **Traffic and Transportation**
 Project Manager: Alan Solomon

DATA ADEQUACY WORKSHEET

Project: Watson Cogeneration Steam and Electric Reliability Project
 Docket: 09-AFC-1

Revision No. 1 Date July 21, 2009
 Technical Staff: David Flores
 Technical Senior: Paula David

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) (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.	Figure 5.11-2 <u>AFC Supplement, Response to Comments, pages 13-14.</u>	<u>NO</u> <u>YES</u>	Please provide a discussion as to whether the Goodyear Blimp Base on South Main Street near the intersection of the San Diego Freeway and Interstate 405 requires FAA review. The Blimp Base is approximately 20,000 feet from the project site and may require FAA review.
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 5.11-2	YES	
Appendix B (g) (5) (C) (i)	Road classification and design capacity;	AFC pg. 5.11-4 & 5 Sec. 5.11.1.3 Table 5.11-3	YES	

Adequacy Issue: Adequate X Inadequate _____
 Technical Area: **Traffic and Transportation**
 Project Manager: Alan Solomon

DATA ADEQUACY WORKSHEET

Project: Watson Cogeneration Steam and Electric Reliability Project
 Docket: 09-AFC-1

Revision No. 1 Date July 21, 2009
 Technical Staff: David Flores
 Technical Senior: Paula David

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) (ii)	Current daily average and peak traffic counts;	AFC pg.5.11-6 & 7 Sec. 5.11.1.5 Table 5.11-5	YES	
Appendix B (g) (5) (C) (iii)	Current and projected levels of service before project development, during construction, and during project operation;	AFC pg.5.11-6 & 7 Sec. 5.11.1.5 Tables 5.11-5 & 6 AFC pg.5.11-10 through 14 Sec. 5.11.2.6 & 7 Tables 5.11-8 through 11	YES	
Appendix B (g) (5) (C) (iv)	Weight and load limitations;	AFC pg. 5.11-21 Sec. 5.11.6.2	YES	
Appendix B (g) (5) (C) (v)	Estimated percentage of current traffic flows for passenger vehicles and trucks; and	AFC pg. 5.11-2 & 3 Sec. 5.11.1.1	YES	
Appendix B (g) (5) (C) (vi)	An identification of any road features affecting public safety.	AFC pg. 5.11-2 & 3 Sec. 5.11.1.1	YES	
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).	AFC pg. 5.11-10 through 14 Sec. 5.11.2.6 & 7	YES	

Adequacy Issue: Adequate X Inadequate _____
 Technical Area: **Traffic and Transportation**
 Project Manager: Alan Solomon

DATA ADEQUACY WORKSHEET

Project: Watson Cogeneration Steam and Electric Reliability Project
 Docket: 09-AFC-1

Revision No. 1 Date July 21, 2009
 Technical Staff: David Flores
 Technical Senior: Paula David

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) (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.	AFC pg. 5.11-8 Sec. 5.11.2.2 AFC pg. 5.11-8 & 9 Sec. 5.11.2.3	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	AFC pg. 5.11-16 & 17 Sec. 5.11.6 Table 5.11-12 AFC pg. 5.11-18 through 22 Sec. 5.11.6.1	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.	AFC pg. 5.11-18 Table 5.11-13	YES	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date July 21, 2009

Technical Area: **Traffic and Transportation**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: David Flores

Project Manager: Alan Solomon

Docket: 09-AFC-1

Technical Senior: Paula David

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.	AFC pg. 5.11-18 Table 5.11-13	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. 5.11-23 Sec. 5.11.6.4 Table 5.11-14	YES	

Adequacy Issue: Adequate X Inadequate _____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date July 21, 2009

Technical Area: **Transmission System Design**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Sudath Arachchige

Project Manager: Alan Solomon

Docket: 09-AFC-1

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 1.2.4 Transmission Facilities Section 3.4.6 Major Electrical Equipment and Systems Section 3.4.12 Project Auxiliaries Section 3.6 Electrical Interconnection Pages 3-46 to 3-49 Figure 3.7 Project Site plan Figure 3-12 Electrical One Line diagram Appendix B -Transmission Line Analysis Appendix F- Electrical Engineering Design Criteria	YES	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date July 21, 2009

Technical Area: **Transmission System Design**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Sudath Arachchige

Project Manager: Alan Solomon

Docket: 09-AFC-1

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) (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 1.2.4 Transmission Facilities Section 3.4.6 Major Electrical Equipment and Systems Section 3.4.12 Project Auxiliaries Section 3.6 Electrical Interconnection Pages 3-46 to 3-49 Figure 3-12 Electrical One Line diagram Appendix B -Transmission Line Analysis	YES	

Adequacy Issue: Adequate X Inadequate _____
 Technical Area: **Transmission System Design**
 Project Manager: Alan Solomon

DATA ADEQUACY WORKSHEET

Project: Watson Cogeneration Steam and Electric Reliability Project
 Docket: 09-AFC-1

Revision No. 1 Date July 21, 2009
 Technical Staff: Sudath Arachchige
 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 (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 1.2.4 Transmission Facilities Section 3.4.6 Major Electrical Equipment and Systems Section 3.4.12 Project Auxiliaries Section 3.6 Electrical Interconnection Pages 3-46 to 3-49 Figure 3-12 Electrical One Line diagram Appendix B -Transmission Line Analysis <u>AFC Supplement, Response to Comments, pages 15-16. Appendix D Figures D-1, D-2, D-3, and D-4 AFC Supplement.</u>	NO <u>YES</u>	1. Provide a one-line diagram for the existing 230kV GIS switchyard after interconnection of the project. Show proposed bay arrangement of the equipments with ratings such as breakers, disconnect switches and relays, etc. which are required to interconnect the project. 2. Resubmit Figure 3-12 (Electrical One Line Diagram) with the breaker ratings, disconnect switches and relay details of the proposed new 69kV GIS substation 3. Provide length, type and current carrying capacity of the short overhead conductor which tie the 69kV transformer to the 69kV GIS substation. 4. Provide a detail drawing of the existing 230kV lattice steel tower configuration which utilized to interconnect the project to the SCE Hinson substation.
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.	Figure 3-12 Electrical One Line diagram Appendix B -Transmission Line Analysis	YES	

Adequacy Issue: Adequate X Inadequate _____
 Technical Area: **Transmission System Design**
 Project Manager: Alan Solomon

DATA ADEQUACY WORKSHEET

Project: Watson Cogeneration Steam and Electric Reliability Project
 Docket: 09-AFC-1

Revision No. 1 Date July 21, 2009
 Technical Staff: Sudath Arachchige
 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 (b) (2) (E)	<p>A completed System Impact Study or signed System Impact Study Agreement with the California Independent System Operator 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>	<p>Section 3.6.4 Transmission System Evaluation (SIS)</p> <p><u>Appendix D, AFC Supplement</u></p>	<p>NO <u>YES</u></p>	<p>A completed System Impact Study or signed System Impact Study Agreement with the California Independent System Operator 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>
Appendix B (i) (1) (A)	<p>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>	<p>Appendix F-Table F1 to F4 Design and Construction laws.</p> <p><u>Revised Table F1. Appendix D, AFC Supplement.</u></p>	<p>NO <u>YES</u></p>	<p>Appendix F Table F1 to F4</p> <p>CPUC G.O. 95 "Rules for overhead Electric Line construction" need to be discussed.</p>

Adequacy Issue: Adequate X Inadequate _____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date July 21, 2009

Technical Area: **Transmission System Design**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: Sudath Arachchige

Project Manager: Alan Solomon

Docket: 09-AFC-1

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 (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.	Appendix F- Electrical Engineering Design criteria	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 7.1 List of Preparers	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 X Inadequate _____
 Technical Area: **Visual Resources** _____
 Project Manager: Alan Solomon

DATA ADEQUACY WORKSHEET

Project: Watson Cogeneration Steam and Electric Reliability Project
 Docket: 09-AFC-1

Revision No. 1 Date July 21, 2009
 Technical Staff: James Adams
 Technical Senior: David Flores

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. 5.13-1 Section 5.13	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. 5.13-1 & 2 Section 5.13.1.1	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 5.13-2	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. 5.13-2 & 3 Section 5.13.1.1	YES	

Adequacy Issue: Adequate X Inadequate _____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date July 21, 2009

Technical Area: **Visual Resources** _____

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: James Adams

Project Manager: Alan Solomon

Docket: 09-AFC-1

Technical Senior: David Flores

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.	PP. 5.13-7 Section 5.13.1.3	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. 5.13-10 Section 5.13.1.4	YES	

Adequacy Issue: Adequate X Inadequate _____

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Revision No. 1 Date July 21, 2009

Technical Area: **Visual Resources** _____

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: James Adams

Project Manager: Alan Solomon

Docket: 09-AFC-1

Technical Senior: David Flores

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.	Table 5.13-15 PP. 5.13-4 Section 5.13.2.5	YES	

Adequacy Issue: Adequate X Inadequate _____
 Technical Area: **Visual Resources** _____
 Project Manager: Alan Solomon _____

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Project: Watson Cogeneration Steam and Electric Reliability Project _____
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 Technical Staff: James Adams _____
 Technical Senior: David Flores _____

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) (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).	Pg. 5.13-19 Section 5.13.2.8 Table 5.13-6 Pg. 5.13-19 Section 5.13.2.8 <u>AFC Supplement, Response to Comments, pages 19, Appendix E Table E-1 and Table E-2, Appendix F Revised Table 3-2,</u>	NO <u>YES</u>	For the cooling tower, please provide data including 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.

Adequacy Issue: Adequate X Inadequate _____
 Technical Area: **Visual Resources** _____
 Project Manager: Alan Solomon

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 Technical Staff: James Adams
 Technical Senior: David Flores

Project: Watson Cogeneration Steam and Electric Reliability Project
 Docket: 09-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.	Figures 5.13-7 & 8	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. 5.13-4 through 21 Section 5.13.2.5	YES	

Adequacy Issue: Adequate X Inadequate _____
 Technical Area: **Visual Resources** _____
 Project Manager: Alan Solomon

DATA ADEQUACY WORKSHEET

Revision No. 1 Date July 21, 2009
 Technical Staff: James Adams
 Technical Senior: David Flores

Project: Watson Cogeneration Steam and Electric Reliability Project
 Docket: 09-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) (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.	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	Table 5.13-9 PP. 5.13-24 through 27	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 5.13-10 Pg. 5.13-28 Section 5.13.4	YES	

Adequacy Issue: Adequate Inadequate

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Technical Area: **Visual Resources**

Project: Watson Cogeneration Steam and Electric Reliability Project

Technical Staff: James Adams

Project Manager: Alan Solomon

Docket: 09-AFC-1

Technical Senior: David Flores

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 5.13-10 Pg. 5.13-28 Section 5.13.4	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.	Pg. 5.13-29	YES	

Adequacy Issue: Adequate X Inadequate _____
 Technical Area: **Water Resources** _____
 Project Manager: Alan Solomon

DATA ADEQUACY WORKSHEET

Revision No. 1 Date July 21, 2009

Project: Watson Cogeneration Steam and Electric Reliability Project
 Docket: 09-AFC-01

Technical Staff: Christopher Dennis
 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) (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 3.3 p. 3-3 to 3-7 Section 5.5.1 p. 5.5-1 to 5.5-12 Section 5.5.4 p. 5.5-28 to 5.5-31 Section 5.5.7 p. 5.5-31 to 5.5-32 Section 5.5.8 p. 5.5-32	YES	
Appendix B (g) (14) (A)	All the information required to apply for the following permits, if applicable, including:	See below	----	
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 5.5.7.1 p. 5.5-31 Section 5.5.7.2 p. 5.5-31 to 5.5-32 Section 5.5.9.2 p. 5.5-32 to 5.5-41 Table 5.5-15	YES	

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Appendix B (g) (14) (A) (ii)	Construction and Industrial Waste Discharge and/or Industrial Pretreatment permits from wastewater treatment agencies;	Section 5.5.9.2 p. 5.5-35 to 5.5-41 Table 5.5-15 Appendix P: Water Resources	YES	
Appendix B (g) (14) (A) (iii)	Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers; and	<u>AFC Supplement, Response to Comments, pages 20.</u>	<u>NO</u> <u>YES</u>	Please state why nationwide and/or Section 404 permits do not apply to the proposed project.
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:	Section 3.3.4 p. 3-4 to 3-7 Section 5.5.1.6 p. 5.5-3 to 5.5-7 Figure 3-5	YES	
Appendix B (g) (14) (B) (i)	Ground water bodies and related geologic structures;	Section 3.3.4.2 p. 3-5 to 3-7 Section 5.5.1.6 p. 5.5-3 to 5.5-7	YES	
Appendix B (g) (14) (B) (ii)	Surface water bodies;	Section 3.3.4.1 p. 3.3-5 Section 5.5.1.6 p. 5.5-3 to 5.5-7 Figure 3-5	YES	

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Appendix B (g) (14) (B) (iii)	Water inundation zones, such as the 100-year flood plain and tsunami run-up zones;	Section 3.5.10 p. 3-45 Section 5.5.1.4 p. 5.5-3	YES	
Appendix B (g) (14) (B) (iv)	Flood control facilities (existing and proposed); and	Section 3.3.4.1 p. 3.3-5 Section 5.5.1.4 p. 5.5-3	YES	
Appendix B (g) (14) (B) (v)	Groundwater wells within ½ mile if the project will include pumping.	Section 5.5.1.7 p. 5.5-7 to 5.5-9	N/A	
Appendix B (g) (14) (C)	A description of the water to be used and discharged by the project. This information shall include:	Section 3.4.8 p.3-23 to 3-28 Section 5.5.3.1 p. 5.5-20 to 5.5-24	YES	
Appendix B (g) (14) (C) (i)	Source(s) of the primary and back-up water supplies and the rationale for their selection;	Section 3.4.8.1 p. 3-24 to 3-26 Section 5.5.2.1 p. 5.5-12 to 5.5-17 Section 5.5.3.1 p. 5.5-20 to 5.5-24	YES	

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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 3.4.8 p. 3-23 Section 3.4.8.2 P. 3-26 to 3-28 Section 3.4.8.3 p. 3-28 to 3-31 Section 5.5.1 p. 5.5-12 to 5.5-17 Section 5.5.3.2 p. 5.5-24 to 5.5-28	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 3.4.8 p. 3-23 Section 3.4.8.1 p. 3-24 to 3-26 Section 3.4.8.3 p. 3-28 to 3-31 Section 5.5.2 p. 5.5-11 to 5.5-12 Section 5.5.3.1 p. 5.5-20 to 5.5-24 Section 5.5.3.2 p. 5.5-24 to 5.5-28	YES	

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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 3.4.8 p. 3-23 Section 3.4.8.1 p. 3-24 to 3-26 Section 3.4.8.2 p. 3-27 to 3-28 Section 3.4.8.3 p. 3-28 to 3-31 Section 5.5.2 p. 5.5-11 to 5.5-12 Section 5.5.3.1 p. 5.5-20 to 5.5-24 Section 5.5.3.2 p. 5.5-24 to 5.5-28 Figures 3-11, 3-13, and 5.5-1	YES	

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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 P: Water Resources	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);	Section 3.4.8 p. 3-28 Section 5.5.3.1 p. 5.5-20 to 5.5-24 Appendix P: Water Resources	YES	

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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	<u>AFC Supplement, Response to Comments, pages 21.</u> <u>Appendix F, Revised Table 3-11, Revised Table 3-13 and Revised Table 5.5-1, AFC Supplement</u> <u>Appendix F, Revised Table 3-2 and Revised Table 3-7, AFC Supplement</u>	<p style="text-align: center;"><u>NO</u> <u>YES</u></p>	<p>Heat balance diagrams were not provided. These are needed for both average and maximum flows. Also, the water flow diagrams need to be revised to include both average and maximum flows. Water conservation measures need to be highlighted on these diagrams.</p>

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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 P: Water Resources	YES	

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Appendix B (g) (14) (D)	Identify all project elements associated with stormwater drainage, including a description of the following:	Section 3.4.8.3 p. 3-28 to 3-31 Section 3.5.9 p. 3-45 Section 5.5.3.2 p. 5.5-24 to 5.5-28 Appendix S: Stormwater Calculations	YES	
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 5.5.1.3 p. 5.5-2 to 5.5-3 Section 5.5.3.2 p. 5.5-24 to 5.5-28 Section 5.5.1.4 p. 5.5-3 Figure 3-5 Appendix: S Stormwater Calculations	YES	
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 3.5.9 p. 3-45 Figure 3-10 Appendix: S Stormwater Calculations	YES	

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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	Section 3.5.9 p. 3-45 Appendix: S Stormwater Calculations	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.	Section 5.5.9.2 p. 5.5-33 to 5.5-39 Appendix R: Industrial Wastewater Discharge Permit	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:	Section 5.5.4 p. 5.5-28 to 5.5-29 Section 5.5.9 p. 5.5-32 to 5.5-41	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;	Section 5.5.4.1 p. 5.5-28 to 5.5-29 Section 5.5.5 p. 5.5-29 to 5.5-31 Section 5.5.9 p. 5.5-32 to 5.5-41	YES	

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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;	N/A	----	
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;	Section 5.5.4 p. 5.5-28 to 5.5-29	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;”	Section 5.5.2.2 p. 5.5-17 to 5.5-20 Section 5.5.4.4 p. 5.5-29	YES	

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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;"	N/A	N/A	
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	Section 5.5.4.5 p. 5.5-28 Section 3.5.10 p. 3-45	YES	
Appendix B (g) (14) (vii)	All assumptions, evidence, references, and calculations used in the analysis to assess these effects.	Section 5.5.4.5 p. 5.5-28 Section 3.5.10 p. 3-45 Appendix: S Stormwater Calculations	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 5.5.9.2 p. 5.5-32 to 5.5-41 Table 5.5-15	YES	

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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.	Section 5.5.9.2 p. 5.5-32 to 5.5-41 Table 5.5-15	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 5.5.9.4 p. 5.5-41 Table 5.5-16	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.	<u>AFC Supplement, Response to Comments, pages 22.</u>	<u>NO</u> <u>YES</u>	Please provide a schedule identifying all permits that would be required for the project that are outside of the authority of the Energy Commission. The schedule must also identify when the permits will be obtained and what steps have been or will be taken to obtain the required permits.