Memorandum

To: Karen Douglas, Chair

James D. Boyd, Vice Chair

Arthur H. Rosenfeld, Ph.D., Commissioner

Jeffrey Byron, Commissioner Julia Levin, Commissioner

From: California Energy Commission – Melissa Jones

1516 Ninth Street Executive Director

Sacramento, CA 95814-5512

Date: July 30, 2009 Telephone: (916) 654-4996

DOCKET

09-AFC-4

DATE JUL 30 2009 RECD JUL 30 2009

Subject: CONTRA COSTA GENERATING STATION PROJECT, DATA ADEQUACY RECOMMENDATION (09-AFC-4)

On June 30, 2009, Contra Costa Generating Station, LLC filed an Application for Certification (AFC) to construct and operate the Contra Costa Generating Station (CCGS), proposed as a merchant natural gas-fired, combined-cycle electrical generating facility rated at a nominal generating capacity of 624 megawatts (MW). The CCGS project would provide needed electric generation capacity with improved efficiency and operational flexibility to help meet northern California's long-term electricity needs as more intermittent renewable resources are integrated into the grid. The proposed project does not have a power purchase agreement at this time. Principal components of the project include the following: two General Electric Frame 7FA combustion turbine-generators with a nominal rating of 213 MW each, equipped with metallurgical enhancements to improve efficiency, a single condensing steam turbine generator, heat recovery steam generators, producing a net 218MW and an air-cooled condenser to provide process cooling. A new 2.4-mile single-circuit, 230-kV transmission line would connect the project site with the Pacific Gas and Electric Company (PG&E) Contra Costa Substation. Natural gas would be supplied by a new 140 foot long direct connection with the adjacent PG&E Antioch natural gas terminal, which is a large gas transmission hub.

Construction of the project, from site preparation and grading to full commercial operation, is expected to take approximately 33 months. If approved, site construction activities would commence in the first quarter of 2011; it is currently anticipated that the project would be on line and in commercial service by the fourth quarter of 2013.

The project is located in Oakley, eastern Contra Costa County, at 6000 Bridgehead Road. The 21.95-acre project site is zoned as heavy industrial, and is part of a larger 500-acre DuPont property. The project site is bounded to the west by the PG&E Antioch natural gas terminal and Highway 4, to the north by the DuPont industrial zoned property, to the east by DuPont's titanium dioxide landfill area, and to the south by the Atchison, Topeka and Santa Fe railroad.

The CCGS proposes to use potable water provided by the Diablo Water District for process (i.e., non-cooling), drinking and sanitary uses. Water access is proposed to be through an onsite tap to an existing 27-inch-diameter distribution pipeline that runs through the CCGS site. Process and sanitary wastewater from the CCGS will be discharged to an existing onsite Ironhouse Sanitary District (ISD) sewer line.

The Energy Commission staff has completed its data adequacy review of the AFC and has determined that it does not meet all the requirements listed in Title 20, section 1704, and Division 2, Chapter 5, Appendix B of the California Code of Regulations for the 12-month process. Of the 21 technical disciplines reviewed, we believe the information contained in the AFC is deficient in seven (5) areas for the 12-month permitting process which are: air quality, cultural resources, project overview, transmission system design, and waste management.

Attached is a summary table and the data adequacy worksheets for all technical disciplines. The worksheets for the aforementioned sections identify the additional information that staff believe is necessary to fulfill the AFC data adequacy requirements. At the Energy Commission's business meeting on August 12, 2009, I will recommend that the Energy Commission adopt the list of deficiencies and not accept the AFC as complete until the additional information specified in the data adequacy worksheets is supplied. If you have any questions, please call Joseph Douglas, staff's Project Manager, at (916) 653-4677.

Attachment

Attachment A Overview of Energy Commission Staff's Data Adequacy Determination Contra Costa Generating Station Project 09-AFC-4

Technical Area	Attachment B Page No.	Adequate ?
AIR QUALITY	5	NO
ALTERNATIVES	11	YES
BIOLOGICAL RESOURCES	12	YES
CULTURAL RESOURCES	21	NO
EFFICIENCY	27	YES
FACILITY DESIGN	29	YES
GEOLOGICAL HAZARDS	32	YES
HAZARDOUS MATERIALS HANDLING	34	YES
LAND USE	37	YES
NOISE	41	YES
PALEONTOLOGICAL RESOURCES	45	YES
PROJECT OVERVIEW	48	NO
PUBLIC HEALTH	53	YES
RELIABILITY	56	YES
SOCIOECONOMICS	58	YES
SOILS	63	YES
TRAFFIC AND TRANSPORTATION	66	YES
TRANSMISSION LINE SAFETY AND		\/
NUISANCE	70	YES
TRANSMISSION SYSTEM DESIGN	72	NO
VISUAL RESOURCES	75	YES
WASTE MANAGEMENT	80	NO
WATER RESOURCES	84	YES
WORKER SAFETY	94	YES

ATTACHMENT B

ENERGY COMMISSION STAFF'S List of Data Inadequacies

Contra Costa Generating Station Project 09-AFC-4

July 30, 2009

Adequad	cy Issue: Adequate	Inadequate X	DATA ADEQUACY WORKSH	EET Revision I	No. <u>0</u> Date <u>July 30, 2009</u>
Technical Area:	Air Quality	Project:	Contra Costa Generation Station	Technical Staff:	Joseph Hughes
Project Manager:	Joseph Douglas	Docket:	09-AFC-4	Technical Senior:	Matt 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 5.1, pages 5.1-1 through 5.1-44; Appendix 5.1	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 5.1.6, page 5.1-33; Appendix 5.1I	No	Please provide a completeness letter from the Bay Area Air Quality Management District (BAAQMD).
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 5.1.5.7, page 5.1-26, table 5.1-18; Section 5.1.1, page 5.1-1; Appendix 5.1A, 5.1A-10	Yes	
Appendix B (g) (8) (C)	A description of the control technologies proposed to limit the emission of criteria pollutants.	Section 5.1.4, page 5.1-14; Section 5.1.4.2, page 5.1- 15 through 5.1-16	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.	Appendix 5.2A-6	Yes	
Appendix B (g) (8) (E)	The emission rates of criteria pollutants and greenhouse gases (CO2, CH4, N2O, and SF6) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all on-site secondary emission sources.	Appendix 5.1A-7; Appendix 5.1A-8; Appendix 5.1A-11	Yes	

Adequa	acy Issue: Adequate	Inadequate X	DATA ADEQUACY WOR	KSHEET Revision	No. <u>0</u> Date <u>July 30, 2009</u>
echnical Area:	Air Quality	Project:	Contra Costa Generation Station	Technical Staff:	Joseph Hughes
roject Manager:	Joseph Douglas	Docket:	09-AFC-4	Technical Senior:	Matt 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) (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.	Appendix 5.1A-5; Section 5.1.3.2, page 5.1-7; Section 5.1.5.3, pages 5.1-8 through 5.1-10; Section 5.1.5.8, pages 5.1-28 through 5.1-30	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 5.1.5.8, page 5.1-30, table 5.1-21	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 5.1.5.6, pages 5.1-23 through 5.1-24, table 5.1-16; Appendix 5.1C	Yes	
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 5.1.5.1, pages 5.1- 16 through 5.1-17; Section 5.1.5.5, pages 5.1-19 through 5.1-20; Appendix 5.1C	Yes	

Adequa	cy Issue: Adequate	Inadequate X	DATA ADEQUACY WORK	(SHEET Revision	No. <u>0</u> Date <u>July 30, 2009</u>
Technical Area:	Air Quality	Project:	Contra Costa Generation Station	Technical Staff:	Joseph Hughes
Project Manager:	Joseph Douglas	Docket:	09-AFC-4	Technical Senior:	Matt 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) (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.		N/A	
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.	Appendix 5.1B-4-8; Appendix 5.1B-1; Section 5.1.2.3, pages 5.1-4 through 5.1-5	Yes	
Appendix B (g) (8) (I)	An evaluation of the project's direct and cumulative air quality impacts, consisting of the following:			
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 (PM2.5)] from construction-related equipment;	Appendix 5.1E, table 5.2E-1	Yes	

Adequa	acy Issue: Adequate	Inadequate X	DATA ADEQUACY WOR	KSHEET Revision	No. <u>0</u> Date <u>July 30, 2009</u>
echnical Area:	Air Quality	Project:	Contra Costa Generation Station	Technical Staff:	Joseph Hughes
roject Manager:	Joseph Douglas	Docket:	09-AFC-4	Technical Senior:	Matt 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) (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 5.1.3.3, pages 5.1-8 through 5.1-11 Appendix 5.1A	Yes	
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 5.1C, page 19 of 21	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 5.1.5.8, pages 5.1-8 through 5.1-30; Appendix 5.1A-5	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:			

Adequa	cy Issue: Adequate	Inadequate X	DATA ADEQUACY WOR	KSHEET Revision	No. <u>0</u> Date	July 30, 2009
Technical Area:	Air Quality	Project:	Contra Costa Generation Station	Technical Staff:	Joseph Hughe	S
Project Manager:	Joseph Douglas	Docket:	09-AFC-4	Technical Senior:	Matt 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) (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 5.1G, table 5.1G-1	No	Please identify quantities of emission reductions needed for the California Energy Commission requirements.
Appendix B (g) (8) (J) (ii)	Potential offset sources, including location, and quantity of emission reductions;	Appendix 5.1G, table 5.1G-1	No	Please provide the proposed ERC package under confidential cover.
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 5.1G	No	Please submit the proposed mitigation strategy that addresses all air pollutants that exceed state and federal ambient air quality standards.
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 5.1.6, pages 5.1-33 through 5.1-42	Yes	

Adequa	cy Issue: Adequate	Inadequate X	DATA ADEQUACY WOR	RKSHEET Revision I	No. <u>0</u> Date <u>July 30, 2009</u>
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Project Manager:	Joseph Douglas	Docket:	09-AFC-4	Technical Senior:	Matt Layton

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (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 5.1.6, pages 5.1-33 through 5.1-42, table 5.1- 25; Section 5.1.7, pages 5.1-42, table 5.1-26	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 5.1.7, page 5.1-42, table 5.1-26	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 5.1.8, page 5.1-42	No	Please provide schedule.

Adequa	acy Issue:	Adequate	X	Inadequate	DATA ADEQUACY WORKSI	HEET Revision	No. <u>0</u> Date <u>July 3</u>	<u>30, 2009</u>
Technical Area:	Alternati	ves		Project:	Contra Costa Generating Station Project	Technical Staff:	Joseph Douglas	
Project Manager:	Joseph Do	ouglas		Docket:	09-AFC-4	Technical Senior:	Robert Worl	

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (1) (D)	A description of how the site and related facilities were selected and the consideration given to engineering constraints, site geology, environmental impacts, water, waste and fuel constraints, electric transmission constraints, and any other factors considered by the applicant.	Pages 6.1-6.2, Section 6.1 Pages 6.7-6.15, Section 6.4	Yes	
Appendix B (f) (1)	A discussion of the range of reasonable alternatives to the project, or to the location of the project, including the no project alternative, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and an evaluation of the comparative merits of the alternatives. In accordance with Public Resources Code section 25540.6(b), a discussion of the applicant's site selection criteria, any alternative sites considered for the project, and the reasons why the applicant chose the proposed site.	Pages 6.2-6.7, Section 6.2 and 6.3 Pages 6.7-6.15, Section 6.4 Pages 6.15-6.22, Section 6.5 and 6.6	Yes	
Appendix B (f) (2)	An evaluation of the comparative engineering, economic, and environmental merits of the alternatives discussed in subsection (f)(1).	Pages 6.7-6.15, Section 6.4 Pages 6.15-6.22, Section 6.5 and 6.6	Yes	

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Project Manager: Joseph Douglas Docket: 09-AFC-4 Technical Senior: Rick York

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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	Existing Site Conditions: Section 5.2.1, pp. 5.2-1 through 5.2-2	Yes	
	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.	Direct, indirect, and cumulative impacts: Sections 5.2.2, 5.2.3, pp. 5.2-40 through 5.2-53	Yes	
		Mitigation measures: Section 5.2.4, pp. 5.2-53 through 5.2-59	Yes	
		Monitoring plans: Section 5.2.4, pp. 5.2-53 through 5.2-54	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	Regional overview: Section 5.2.1.1, pp. 5.1-2 through 5.2-5	Yes	
	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 vicinity maps: Figure 5.2-1	Yes	
Appendix B (g) (13) (A) (i)	species listed under state or federal Endangered Species Acts;	Federal and state Endangered Species: Table 5.2-2	Yes	
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: Section 5.2.1.8.6, pp. 5.2-37 through 5.2-39	Yes	

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Appendix B (g) (13) (A) (iii)	species identified as state Fully Protected;	State Fully Protected species: Section 5.2.1.8.5, p. 5.2-37, Table 5.2-2	Yes	
Appendix B (g) (13) (A) (iv)	species covered by Migratory Bird Treaty Act;	Migratory Bird Act species: Section 5.2.1.8.1, p. 5.2-35, Table 5.2-2	Yes	
Appendix B (g) (13) (A) (v)	species and habitats identified by local, state, and federal agencies as needing protection, including but not limited to those identified by the California Natural Diversity Database, or where applicable, in Local Coastal Programs or in relevant decisions of the California Coastal Commission; and	Species and habitats identified in the California Natural Diversity Database: Table 5.2-2, Section 5.2.1.2, pp. 5.2-5 through 5.2-8	Yes	
Appendix B (g) (13) (A) (vi)	fish and wildlife species that have commercial and/or recreational value.	Fish and wildlife of commercial or recreational value: Section 5.2.1.8.8, p. 5.2-40	Yes	
Appendix B (g) (13) (B)	Include a list of the species actually observed and those with a potential to occur within 1 mile of the project site and 1,000 feet from the outer edge of linear facility corridors. Maps or aerial photographs shall include the following:	List of species observed: Table 5.2-1	Yes	
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	Map of proposed project site: Figures 5.2-2 and 5.2-3A through 5.2-3J	Yes	
	project site and related facilities, biological resources including, but not limited to, those found during project-related field surveys and in	Map of biological resources: Figure 5.2-2	Yes	
	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 survey area: Figures 5.2-3A through 5.2-3J	Yes	

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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.	Depiction of the thermal plume:	Not applicable	
	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	Location of intake and discharge structures:	Not applicable	
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	Potential jurisdictional or non-jurisdictional wetlands map: Figures 5.2-3A through 5.2-3J	Yes	
	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.	Coastal zone wetlands map:	Not applicable	
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.	Discussion of biological resources at project site: Section 5.2.1.5.5, pp. 5.2-12 through 5.2-33	Yes	
	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 related facilities: Section 5.2.1.6, p. 5.2-33	Yes	
Appendix B (g) (13) (C) (i)	A list of all the species actually observed;	List of species observed: Table 5.2-1	Yes	

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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: Sections 5.2.1.7 and 5.2.1.8, pp. 5.2-34 through 5.2-35, Table 5.2-2	Yes	
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,	Intake structure characteristics:	Not applicable	
	screens, water volume, intake velocity hydraulic zone field of influence, and the thermal plume dispersion area as depicted in response to B(ii)	Thermal plume description:	Not applicable	
	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	Aquatic habitat and biological resources affected:	Not applicable	
	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	Impingement and entrainment analysis:	Not applicable	
	increase in cooling water flow, provide a complete impingement and entrainment analysis per guidance in (D)(ii), below.			

Adequacy Issue: Adequate X Inadequate DATA ADEQUACY WORKSHEET Revision No. 0 Date July 30, 2009

Area: Biological Resources Project: Contra Costa Generating Station Technical Staff: Brian McCollough

Technical Area:	Biological Resources	Project:	Contra Costa Generating Station	Technical Staff:	Brian McCollough
Project Manager:	Joseph Douglas	Docket:	09-AFC-4	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) (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	Description of field studies: Section 5.2.1.4 pp.5.2-8 through 5.2-11	Yes	
	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	Copies of CNDDB records and field survey forms: Appendix 5.2A	Yes	
	complete the surveys, and the name(s) and qualifications of the biologists conducting the surveys. Include:	Qualifications of biologists: Appendix 5.2E	Yes	
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 5.2.1.4, pp. 5.2-8 through 5.2-11, Appendix 5.2D	Yes	

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SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (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: Aquatic resource survey data or impingement and entrainment impact study:	Not applicable Not applicable	
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 5.2.2.2.9, pp. 5.2- 46 through 5.2-47, Appendix 5.2F	Yes	
Appendix B (g) (13) (E)	Impacts discussion of the following:			

Technical Area: Biological Resources Project: Contra Costa Generating Station Technical Staff: Brian McCollough
Project Manager: Joseph Douglas Docket: 09-AFC-4 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.	Project site impacts: Section 5.2.2.3, pp. 5.2-47 through 5.2-53	Yes	
	Discussion shall also address sensitive species habitat impacts from cooling tower drift and air emissions;	Emission impacts on sensitive species: Section 5.2.2.3.5, pp. 5.2-51 through 5.2-52	Yes	
Appendix B (g) (13) (E) (ii)	Facilities that propose to take water directly from, and/or discharge water to surface water	Intake impacts:	Not applicable	
	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	Thermal plume impacts:	Not applicable	
Appendix B (g) (13) (E) (iii)	Methods to control biofouling and chemical concentrations, and temperatures that are currently being discharged or will be discharged	Biofouling and chemical concentration controls:	Not applicable	
	to receiving waters.	Discharge temperatures:	Not applicable	
Appendix B (g) (13) (F)	A discussion of all feasible mitigation measures including, but not limited to the following:			
Appendix B (g) (13) (F) (i)	All measures proposed to avoid and/or reduce adverse impacts to biological resources;	Section 5.2.4, pp. 5.2-53 through 5.2-59	Yes	
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;	Section 5.2.4.2, p. 5.2-55 through 5.2-57	Yes	

Technical Area: Biological Resources Project: Contra Costa Generating Station Technical Staff: Brian McCollough

Project Manager: Joseph Douglas Docket: 09-AFC-4 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) (iii)	Design features to better disperse or eliminate a thermal discharge;	Design features to eliminate thermal discharge:	Not applicable	
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	
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 5.2.4, pp. 5.2-53 through 5.2-54	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 5.2.4, pp. 5.2-53 through 5.2-54	Yes	
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 5.2.6, pp. 5.2-65 through 5.2-66	Yes	

Technical Area: Biological Resources Project: Contra Costa Generating Station Technical Staff: Brian McCollough
Project Manager: Joseph Douglas Docket: 09-AFC-4 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) (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 5.2-4	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Tables identifying agencies with jurisdiction: Table 5.2-5	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Agency contact information: Table 5.2-5	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Permit schedule: Section 5.2.7, p. 5.2-66	Yes	

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echnical Area:	Cultural Resources	Project:	Contra Costa Generating Station	Technical Staff:	Beverly Bastian
roject Manager:	Joseph Douglas	Docket:	09-AFC-4	Technical Senior:	Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction,	existing site conditions: Vol. 1, Sec. 5.5.0, p. 5.6-1	Yes	
	operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and	impacts due to project: Vol. 1, Sec. 5.3, pp. 5.3-20–5.3-21	Yes	
	any monitoring plans proposed to verify the effectiveness of the mitigation.	measures to mitigate known impacts: Vol. 1, Sec. 5.3, pp. 5.3-21–5.3-24	Yes	
		effectiveness of the proposed measures	N/A	
		any monitoring plans proposed to verify the effectiveness of the mitigation	N/A	
Appendix B (g) (2) (A)	A summary of the ethnology, prehistory, and history of the region with emphasis on the area within no more than a 5-mile radius of the project location.	Summary of the ethnology, prehistory, and history: Vol. 1, Sec. 5.3, pp. 5.3-2–5.3-6	Yes	

Adequacy Issue:	Adequate	Inadequate	X	DATA ADEQUACY WORKSHEET	Revision No.	0	Date	July 30, 200
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Technical Area: Cultural Resources Project: Contra Costa Generating Station Technical Staff: Beverly Bastian
Project Manager: Joseph Douglas Docket: 09-AFC-4 Technical Senior: Rick York

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (B)	The results of a literature search to identify cultural resources within an area not less than a 1-mile radius around the project site and not	Literature searches: Vol. 1, Sec. 5.3, pp. 5.3-7–5.3-9	Yes	
	less that than one-quarter (0.25) mile on each side of the linear facilities. Identify any cultural resources listed pursuant to ordinance by a city or county, or recognized by any local historical or archaeological society or museum.	Cultural resources listed under a city or county ordinance:	No	Please make inquiries about cultural resources listed under a city or county ordinance and provide any resulting information to the Commission.
	Literature searches to identify the above cultural resources must be completed by, or under the direction of, individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.	Cultural resources recognized by local societies: Vol. 1, Sec. 5.3, p. 5.3-20	Yes	
	Copies of California Department of Parks and Recreation (DPR) 523 forms (Title 14 CCR §4853) shall be provided for all cultural	Names/quals for lit searchers/directors: Vol. 2, App. 5.3D	Yes	
	resources (ethnographic, architectural, historical, and archaeological) identified in the literature search as being 45 years or older or of exceptional importance as defined in the National Register Bulletin Guidelines, (36CFR60.4(g)). A copy of the USGS 7.5'	DPR523s for known resources:	Yes	
	quadrangle map of the literature search area delineating the areas of all past surveys and noting the California Historical Resources Information System (CHRIS) identifying number shall be provided. Copies also shall be provided	Map of lit search area with past surveys and CHRIS #s: Vol. 2, App. 5.3C, Study Maps 1 & 2	Yes	Please provide copies of CHRIS reports S-009054(s), S-023665(e), S-023674(s) S-033821(s), S-034412(s), and S-034866(e).
	of all technical reports whose survey coverage is wholly or partly within .25 mile of the area surveyed for the project under Section (g)(2)(C), or which report on any archaeological excavations or architectural surveys within the literature search area.	CHRIS reports:	No	These four required reports for cultural resources surveys within 0.25 mile of the proposed plant site or transmission line (s) and two reports on excavation (e) and NRHP evaluation were not included in Vol. 2, App. 5.3C.

California Energy Commission – Siting, Transmission, and Environmental Protection Division

Technical Area:Cultural ResourcesProject:Contra Costa Generating StationTechnical Staff:Beverly BastianProject Manager:Joseph DouglasDocket:09-AFC-4Technical Senior:Rick York

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C)	The results of new surveys or surveys less than 5 years old shall be provided if survey records of the area potentially affected by the project are more than five (5) years old. Surveys to identify new cultural resources must be completed by (or under the direction of) individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.	Names/quals for archaeological surveyors or directors: Vol. 2, App. 5.3D	Yes	
	New pedestrian archaeological surveys shall be conducted inclusive of the project site and project linear facility routes, extending to no less than 200' around the project site, substations and staging	Names/quals for historical architecture surveyors or directors: Vol. 2, App. 5.3D	Yes	
	areas, and to no less than 50' to either side of the right-of-way of project linear facility routes. New historic architecture field surveys in rural areas shall be conducted inclusive of the project site and the project linear facility routes, extending no less than .5 mile out from the proposed plant site and from the routes of all above-ground linear facilities. New historic architecture field surveys in urban	Survey coverage, archaeology: Vol 1, Figure 5.3-1	Yes	
	and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory,	Survey coverage, architecture: Vol. 1, Figure 5.3-2	Yes	
	and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.	Tech report for new archaeological survey: Vol. 2, App. 5.3B	Yes	
	A technical report of the results of the new surveys, conforming to the Archaeological Resource Management Report format (CA Office of Historic Preservation Feb 1990), which is incorporated by reference, shall be separately provided and submitted (under confidential cover if archaeological site locations are included).	Technical report for new architectural survey: Vol. 2, App. 5.3B	Yes	

California Energy Commission – Siting, Transmission, and Environmental Protection Division

Adequa	ncy Issue: Ade	equate Inadeo	quate X	DATA ADEQUACY WORKSH	IEET	Revision N	o. <u>0</u>	Date	<u>July 30, 2009</u>
Technical Area:	Cultural Reso	ources	Project:	Contra Costa Generating Station	Technica	l Staff:	Beverl	y Bastia	n
Project Manager:	Joseph Douglas	3	Docket:	09-AFC-4	Technica	Senior:	Rick Y	ork	

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C) cont.	Information included in the technical report shall also be provided in the Application for Certification, except that confidential information (archaeological sites or areas of religious significance) shall be submitted under a request for confidentiality pursuant to Title 20, California Code of Regulations, § 2501 et seq. At a minimum, the technical report shall include the following:	Vol. 1, Sec. 5.3, pp. 5.3-1–5.3-30	Yes	
Appendix B (g) (2) (C) (i)	The summary from Appendix B (g)(2)(A) and the literature search results from Appendix B (g)(2)(B);	Summary: Vol. 2, App. 5.3B, pp. 1–8	Yes	
		Literature search results: Vol. 2, App. 5.3B, pp. 8–11	Yes	
Appendix B (g) (2) (C) (ii)	The survey procedures and methodology used to identify cultural resources and a discussion of the cultural resources identified by the survey;	Archaeological methodology: Vol. 2, App. 5.3B, pp. 12–13	Yes	
		Historical architecture methodology: Vol. 2, App. 5.3B, pp. 14–15	Yes	
Appendix B (g) (2) (C) (iii)	Copies of all new and updated DPR 523(A) forms. If a cultural resource may be impacted by the project, also include the appropriate DPR	Archaeological forms: Vol. 2, App. 5.3B, App. A	Yes	
	523 detail form for each such resource;	Architecture forms: Vol. 2, App. 5.3B, App. A	Yes	
Appendix B (g) (2) (C) (iv)	A map at a scale of 1:24,000 U.S. Geological Survey quadrangle depicting the locations of all previously known and newly identified cultural resources compiled through the research required by Appendix B (g)(2)(B) and Appendix B (g)(2)(C) (ii); and	Archaeology and architecture map:	No	Please compile and submit under confidential cover a map at a scale of 1:24,000 showing the locations of all previously known and newly identified cultural resources located within the literature search area, with the resources labeled. (Study maps 1 & 2 in Vol. 2, App. 5.3C show known resources but not resources newly identified by the applicant's surveys.)

Adequa	ncy Issue: Ade	equate Inadeo	quate X	DATA ADEQUACY WORKSH	IEET	Revision N	o. <u>0</u>	Date	<u>July 30, 2009</u>
Technical Area:	Cultural Reso	ources	Project:	Contra Costa Generating Station	Technica	l Staff:	Beverl	y Bastia	n
Project Manager:	Joseph Douglas	3	Docket:	09-AFC-4	Technica	Senior:	Rick Y	ork	

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C) (v)	The names and qualifications of the cultural resources specialists who contributed to and were responsible for literature searches, surveys, and preparation of the technical report.	Names/quals for archaeologists: Vol. 2, App. 5.3D	Yes	
		Names/quals for architectural historians: Vol. 2, App. 5.3D	Yes	
Appendix B (g) (2) (D)	Provide a copy of your request to the Native American Heritage Commission (NAHC) for information on Native American sacred sites	NAHC request: Vol. 2, App. 5.3A	Yes	
	and lists of Native Americans interested in the project vicinity, and copies of any correspondence received from the NAHC.	NAHC response: Vol. 2, App. 5.3A	Yes	
	Notify the Native Americans on the NAHC list about the project, including a project description and map. Provide a copy of all correspondence sent to Native American individuals and groups	Letters sent to Native Americans:	Yes	
	listed by the NAHC and copies of all responses. Provide a written summary of any oral responses.	Letters received from Native Americans: Vol. 1, Sec. 5.3, p. 5.3-15	Yes	
		Summary of oral responses from Native Americans: Vol. 1, Sec. 5.3, p. 5.3-19	Yes	
Appendix B (g) (2) (E)	Include in the discussion of proposed mitigation measures required by subdivision (g)(1):		-	
Appendix B (g) (2) (E) (i)	A discussion of measures proposed to mitigate project impacts to known cultural resources;	Mitigation measures for known impacts: Vol. 1, Sec. 5.3, pp. 5.3-20–5.3-21	Yes	
Appendix B (g) (2) (E) (ii)	A set of contingency measures proposed to mitigate potential impacts to previously unknown cultural resources and any unanticipated impacts to known cultural resources; and	Contingency mitigation measures: Vol. 1, Sec. 5.3, pp. 5.3-22–5.3-24	Yes	

Adequa	cy Issue:	Adequate	Inadequate	X	DATA ADEQUACY WORKSHI	EET	Revision No	. <u>0</u>	Date	July 30, 2009
Technical Area:	Cultural I	Resources	_ Proje	ect:	Contra Costa Generating Station	Technical	Staff: E	Beverl	y Bastia	an

Technical Senior:

Rick York

Docket:

09-AFC-4

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (E) (iii)	Educational programs to enhance employee awareness during construction and operation to protect cultural resources.	Worker education programs: Vol. 1, Sec. 5.3, p. 5.3-22	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	Tables identifying applicable LORS: Vol. 1, Sec. 5.3, Table 5.3-3, p. 5.3-24	Yes	Please provide AFC page numbers to Table 5.3-3 indicating where conformance with each law,
	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	Explicitly referenced pages: Discussion of applicability of LORS: Vol. 1, Sec. 5.3, pp. 5.3-25–5.3-28	No Yes	during both construction and operation, is discussed.
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Tables identifying agencies: Vol. 1, Sec. 5.3, Table 5.3-4, p. 5.3-29	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Official within each agency who will serve as a contact person for the agency: Vol. 1, Sec. 5.3, Table 5.3-4, p. 5.3-29	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Schedule indicating when outside permits will be obtained: Vol. 1, Sec. 5.3, p. 5.3-29	Yes	

California Energy Commission – Siting, Transmission, and Environmental Protection Division

Project Manager:

Joseph Douglas

Adequa	acy Issue:	Adequate	X	Inadequate	DATA ADEQUACY WOR	KSHEET	Revision I	No. <u>0</u>	Date	<u>July 30, 2009</u>
echnical Area:	Efficienc	y		Project:	Contra Costa Generating Station	Technical	Staff:	Shaha	b Khosł	hmashrab
roject Manager:	Joseph Do	uglas		Docket:	09-AFC-4	Technical	Senior:	Steve	Baker	

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	§§ 1.1, 1.2, 2.0, 2.1, 2.1.2	Yes	
Appendix B (h) (4) (A)	Heat and mass balance diagrams for design conditions for each mode of operation.	§§ 2.1.2, 2.6 Figure 2.1-4 Appendix 2A	Yes	
Appendix B (h) (4) (B)	Annual fuel consumption in BTUs for each mode of operation, including hot restarts and cold starts.	§ 2.1.6	Yes	
Appendix B (h) (4) (C)	Annual net electrical energy produced in MWh for each mode of operation including starts and shutdowns.	§ 2.6	Yes	
Appendix B (h) (4) (D)	Number of hours the plant will be operated in each design condition in each year.	§ 2.6	Yes	
Appendix B (h) (4) (E)	If the project will be a cogeneration facility, calculations showing compliance with applicable efficiency and operating standards.	N/A	N/A	
Appendix B (h) (4) (F)	A discussion of alternative generating technologies available for the project, including the projected efficiency of each, and an explanation why the chosen equipment was selected over these alternatives.	§ 6.6	Yes	

Adequacy Issue: Adequate Inadequate Revision No. 0 Date July 30, 2009 **DATA ADEQUACY WORKSHEET** Contra Costa Generating Station Technical Staff: Technical Area: Efficiency Project: Shahab Khoshmashrab Project Manager: Joseph Douglas Docket: 09-AFC-4 Technical Senior: Steve Baker

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

Adequacy Issue: Adequate Inadequate Revision No. 0 Date July 30, 2009 **DATA ADEQUACY WORKSHEET** Project: Technical Staff: Technical Area: **Facility Design** Contra Costa Generating Station Steve Baker Project Manager: Joseph Douglas Docket: 09-AFC-4 **Technical Senior:** Steve Baker

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (A)	A description of the site conditions and investigations or studies conducted to determine the site conditions used as the basis for developing design criteria. The descriptions shall include, but not be limited to, seismic and other geologic hazards, adverse conditions that could affect the project's foundation, adverse meteorological and climatic conditions, and flooding hazards, if applicable.	§§ ES, 1.0, 1.1, 2.0, 2.1.1, 2.1.2, 2.1.3, 2.1.4.1, 2.1.4.2, 2.1.4.3, 2.1.4.4, 2.1.5.3, 2.1.5.4, 2.1.6, 2.1.7, 2.1.8, 2.1.9, 2.1.10, 2.1.13.3, 2.1.13.5, 2.1.13.6, 2.3, 2.4.1, 2.4.2, 2.5.1, 2.5.2.1, 2.5.2.5, 2.5.2.6, 2.5.2.7, 2.5.2.8, 2.5.2.9, 2.5.3, 2.5.4, 2.5.6, 4.0, 4.3, 5.4.1, 5.4.3; Table 2.5-1; Appendices 2B, 2C, 2D, 2E, 2F, 2G, 2H	Yes	
Appendix B (h) (1) (B)	A discussion of any measures proposed to improve adverse site conditions.	§ 5.4.1	Yes	
Appendix B (h) (1) (C)	A description of the proposed foundation types, design criteria (including derivation), analytical techniques, assumptions, loading conditions, and loading combinations to be used in the design of facility structures and major mechanical and electrical equipment	§ 5.4.1; Appendices 2B, 2C, 2H	Yes	
Appendix B (h) (1) (D)	For each of the following facilities and/or systems, provide a description including drawings, dimensions, surface-area requirements, typical operating data, and performance and design criteria for protection from impacts due to adverse site conditions:		_	

Technical Area: Facility Design Project: Contra Costa Generating Station Technical Staff: Steve Baker
Project Manager: Joseph Douglas Docket: 09-AFC-4 Technical Senior: Steve Baker

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (D) (i)	The power generation system;	§§ ES, 2.0, 2.1.2, 2.1.3, 2.1.4.1, 2.1.4.2, 2.1.4.3, 2.1.4.4, 2.5.6, 5.4.1, 5.4.3; Appendices 2B, 2C, 2H; Figures 2.1-1, 2.1-2, 2.1-3a, 2.1-3b	Yes	
Appendix B (h) (1) (D) (ii)	The heat dissipation system;	§§ ES, 2.0, 2.1.2, 2.1.3, 2.1.7	Yes	
Appendix B (h) (1) (D) (iii)	The cooling water supply system, and, where applicable, pre-plant treatment procedures;	§§ 2.0, 2.1.3, 2.1.8, 2.5.2.8, 2.5.4; Appendix 2I	Yes	
Appendix B (h) (1) (D) (iv)	The atmospheric emission control system;	§§ ES, 2.0, 2.1.2, 2.1.9, 5.1	Yes	
Appendix B (h) (1) (D) (v)	The waste disposal system and on-site disposal sites;	§ 5.14	Yes	
Appendix B (h) (1) (D) (vi)	The noise emission abatement system;	§ 5.7	Yes	
Appendix B (h) (1) (D) (vii)	The geothermal resource conveyance and reinjection lines (if applicable);	N/A	N/A	
Appendix B (h) (1) (D) (viii)	Switchyards/transformer systems; and	§ 3.2	Yes	
Appendix B (h) (1) (D) (ix)	Other significant facilities, structures, or system components proposed by the applicant.	N/A	N/A	

Technical Area: Facility Design Project: Contra Costa Generating Station Technical Staff: Steve Baker
Project Manager: Joseph Douglas Docket: 09-AFC-4 Technical Senior: Steve Baker

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

Technical Area: Geological Hazards Project: Contra Costa Generating Station Technical Staff: Patrick Pilling, Ph.D., P.E. Project Manager: Joseph Douglas Docket: 09-AFC-4 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.	Section 1.0, page 1-1; Section 5.4.1, page 5.4-1; Section 5.4.3, page 5.4-10; Section 5.4.4, page 5.4-10	Yes	None
Appendix B (g) (17) (A)	A summary of the geology, seismicity, and geologic resources of the project site and related facilities, including linear facilities.	Section 5.4.1.1, page 5.4-1; Section 5.4.1.2, page 5.4-1; Section 5.4.1.3, page 5.4-2; Section 5.4.1.5, page 5.4-8; appendix 2H	Yes	None
Appendix B (g) (17) (B)	A map at a scale of 1:24,000 and description of all recognized stratigraphic units, geologic structures, and geomorphic features within two (2) miles of the project site and along proposed facilities. Include an analysis of the likelihood of ground rupture, seismic shaking, mass wasting and slope stability, liquefaction, subsidence, tsunami runup, and expansion or collapse of soil structures at the plant site. Describe known geologic hazards along or crossing linear facilities.	Section 5.4.1.2, page 5.4-1; Section 5.4.1.3, page 5.4-2; Section 5.4.1.4, page 5.4-7; Section 5.4.2.2, page 5.4-9; Figure 5.4-1; Figure 5.4-2	Yes	None
Appendix B (g) (17) (C)	A map and description of geologic resources of recreational, commercial, or scientific value which may be affected by the project. Include a discussion of the techniques used to identify and evaluate these resources.	Section 5.4.1.5, page 5.4-8	Yes	None

Technical Area: Geological Hazards Project: Contra Costa Generating Station Technical Staff: Patrick Pilling, Ph.D., P.E. Project Manager: Joseph Douglas Docket: 09-AFC-4 Technical Senior: Steve Baker

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 5.4-1; Section 5.4.5, page 5.4-11	Yes	None
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 5.4.6, page 5.4-11	Yes	None
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 5.4.6, page 5.4-11	Yes	None
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 5.4.7, page 5.4-11	Yes	None

Technical Area: Hazardous Materials Handling Project: Contra Costa Generating Station Technical Staff: Rick Tyler
Project Manager: Joseph Douglas Docket: 09-AFC-4 Technical Senior: Rick Tyler

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Section 2.7	Yes	
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.5	Yes	
Appendix B (g) (10) (A)	A list of all materials used or stored on-site which are hazardous or acutely hazardous, as defined in Title 22, California Code of Regulations, § 66261.20 et seq., and a discussion of the toxicity of each material.	Tables 5.5-1, 5.5-2	Yes	
Appendix B (g) (10) (B)	A map at a scale of 1:24,000 depicting the location of schools, hospitals, day-care facilities, emergency response facilities and long-term health care facilities, within the area potentially affected by any release of hazardous materials.	Appendix 5.1D	Yes	
Appendix B (g) (10) (C)	A discussion of the storage and handling system for each hazardous material used or stored at the site.	Section 5.5	Yes	

Technical Area: Hazardous Materials Handling
Project: Contra Costa Generating Station
Technical Staff: Rick Tyler
Project Manager: Joseph Douglas
Docket: 09-AFC-4
Technical Senior: Rick Tyler

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (10) (D)	The protocol that will be used in modeling potential consequences of accidental releases that could result in off site impacts. Identify the model(s) to be used, a description of all input assumptions, including meteorological conditions. The results of the modeling analysis can be submitted after the AFC is complete.	Appendix 5.5.A	Yes	
Appendix B (g) (10) (E)	A discussion of whether a risk management plan (Health and Safety Code § 25531 et seq.) will be required, and if so, the requirements that will likely be incorporated into the plan.	Section 5.5.2.3.2	Yes	
Appendix B (g) (10) (F)	A discussion of measures proposed to reduce the risk of any release of hazardous materials.	Section 5.5	Yes	
Appendix B (g) (10) (G)	A discussion of the fire and explosion risks associated with the project.	Section 5.5.2.5	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 5.5-5	Yes	

Technical Area:Hazardous Materials HandlingProject:Contra Costa Generating StationTechnical Staff:Rick TylerProject Manager:Joseph DouglasDocket:09-AFC-4Technical Senior:Rick Tyler

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (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 5.57	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 5.5-5	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Table 5.12-8	Yes	

Adequacy Issue: Adequate Inadequate Revision No. 0 Date July 30, 2009 **DATA ADEQUACY WORKSHEET** Technical Area: Land Use Project: Contra Costa Generating Station Technical Staff: **David Flores** 09-AFC-4 David Flores Project Manager: Joseph Douglas **Technical Senior:** Docket:

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. 5.6.1 Sec. 5.6-1 AFC pg.5.6-26 & 27 Sec. 5.6.3 & 4	Yes	
Appendix B (g) (3) (A)	A discussion of existing land uses and current zoning at the site, land uses and land use patterns within one mile of the proposed site and within one-quarter mile of any project-related linear facilities. Include:	AFC pg. 5.6-1 through 9 Sec. 5.6.1 Table 5.6-1 Figure 5.6-1 Figure 5.6-2	Yes	
Appendix B (g) (3) (A) (i)	An identification of residential, commercial, industrial, recreational, scenic, agricultural, natural resource protection, natural resource extraction, educational, religious, cultural, and historic areas, and any other area of unique land uses;	AFC pg. 5.6-1 through 9 Sec. 5.6.1 Table 5.6-1 Figure 5.6-1 Figure 5.6-2	Yes	
Appendix B (g) (3) (A) (ii)	A discussion of any recent or proposed zone changes and/or general plan amendments; noticed by an elected or appointed board, commission, or similar entity at the state or local level;	AFC pg. 5.6-4 Sec. 5.6.1.6.1 Table 5.6-4	Yes	
Appendix B (g) (3) (A) (iii)	Identification of all discretionary reviews by public agencies initiated or completed within 18 months prior to filing the application for those changes or developments identified in subsection (g)(3)(A)(ii); and	AFC pg. 5.6-21 & 22 Sec. 5.6.1.7	Yes	

Technical Area:Land UseProject:Contra Costa Generating StationTechnical Staff:David FloresProject Manager:Joseph DouglasDocket:09-AFC-4Technical 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) (3) (A) (iv)	Legible maps of the areas identified in subsection (g)(3)(A) potentially affected by the project, on which existing land uses, jurisdictional boundaries, general plan designations, specific plan designations, and zoning have been clearly delineated.	Figure 5.6-3 Figure 5.6-4	Yes	
Appendix B (g) (3) (B)	A discussion of the compatibility of the proposed project with present and expected land uses, and conformity with any long-range land use plans adopted by any federal, state, regional, or local planning agencies. The discussion shall identify the need, if any, for land use decisions by another public agency or as part of the commission's decision that would be necessary to make the project conform to adopted federal, state, regional, or local coastal plans, land use plans, or zoning ordinances. Examples of land use decisions include: general plan amendments, zoning changes, lot line adjustments, parcel mergers, subdivision maps, Agricultural Land Conservation Act contracts cancellation, and Airport Land Use Plan consistency determinations.	AFC pg. 5.6-9 through 16 Sec. 5.6.1.2 through 5.6.1.5.2	Yes	
Appendix B (g) (3) (C)	A discussion of the legal status of the parcel(s) on which the project is proposed. If the proposed site consists of more than one legal parcel, describe the method and timetable for merging or otherwise combining those parcels so that the proposed project, excluding linears and temporary laydown or staging area, will be located on a single legal parcel. The merger need not occur prior to a decision on the Application but must be completed prior to the start of construction.	Appendix 1A Title Report	Yes	

California Energy Commission – Siting, Transmission, and Environmental Protection Division

Adequa	acy Issue:	Adequate	X	Inadequate	DATA ADEQUACY WO	RKSHEET F	Revision No.	0 Date	<u>July 30, 2009</u>
Technical Area:	Land Use)		Project:	Contra Costa Generating Station	Technical S	Staff: Da	avid Flores	
Project Manager:	Joseph Do	uglas		Docket:	09-AFC-4	Technical S	Senior: Da	avid 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) (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:	Figure 5.6-2	Yes	
Appendix B (g) (3) (D) (i)	Crop types, irrigation systems, and any special cultivation practices;	AFC pg. 5.6-9 Sec. 5.6.1.2	Yes	
Appendix B (g) (3) (D) (ii)	Whether farmland affected by the project is prime, of statewide importance, or unique as defined by the California Department of Conservation; and	AFC pg. 5.6-6 Sec. 5.6.1.1.4	Yes	
Appendix B (g) (3) (D) (iii)	Direct, indirect, and cumulative effects on agricultural land uses. If the proposed site or related facilities are subject to an Agricultural Land Conservation contract, provide a written copy and a discussion of the status of the expiration or canceling of such contract.	AFC pg. 5.6-6 Sec. 5.6.1.1.4	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	AFC pg. 5.6-27 Sec. 5.6.5 Table 5.6-6	Yes	

Adequa	cy Issue: Adequate	X	Inadequate	DATA ADEQUACY WORKS	HEET	Revision N	lo. <u>0</u> Date	July 30, 2009
Technical Area:	Land Use		Project:	Contra Costa Generating Station	Technical	Staff:	David Flores	;
Project Manager:	Joseph Douglas		Docket:	09-AFC-4	Technical	Senior:	David Flores	1

SITING REGULATIONS	Information	INFORMATION AFC PAGE NUMBER AND ADEQUATE SECTION NUMBER YES OR NO			
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. 5.6-28 & 29 Table 5.6-7	Yes		
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	AFC pg. 5.6-28 & 29 Sec. 5.6.6 Table 5.6-7	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. 5.6-29 Sec. 5.6-7	Yes		

Adequa	acy Issue:	Adequate	X	Inadequate	DATA ADEQUACY WORKS	HEET Revi	sion No. <u>0</u>	Date:	July 30, 2009
Technical Area:	Noise			Project:	Contra Costa Generating Station Project	Technical Staff	: Erin Bı	right	
Project Manager:	Joseph Dou	uglas		Docket:	09-AFC-4	Technical Seni	or: Steve	Baker	

SITING REGULATIONS	INFORMATION AFC PAGE NUMBER AND ADEQUATE SECTION NUMBER 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.	§§ 5.7.2, 5.7.3, 5.7.4, 5.7.5	Yes	
Appendix B (g) (4) (A)	A land use map which identifies residences, hospitals, libraries, schools, places of worship, or other facilities where quiet is an important attribute of the environment within the area impacted by the proposed project. The area potentially impacted by the proposed project is that area where, during either construction or operation, there is a potential increase of 5 dB(A) or more, over existing background levels.	Figure 5.7-1; Figure 5.6-1; Table 5.6-1	Yes	

Adequacy Issue: Adequate Inadequate Revision No. <u>0</u> Date: July 30, 2009 **DATA ADEQUACY WORKSHEET** Technical Area: Contra Costa Generating Station Project Technical Staff: Project: Erin Bright Noise Project Manager: Docket: 09-AFC-4 Technical Senior: Steve Baker Joseph Douglas

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (4) (B)	A description of the ambient noise levels at those sites identified under subsection (g)(4)(A) which the applicant believes provide a representative characterization of the ambient noise levels in the project vicinity, and a discussion of the general atmospheric conditions, including temperature, humidity, and the presence of wind and rain at the time of the measurements. The existing noise levels shall be determined by taking noise measurements for a minimum of 25 consecutive hours at a minimum of one site. Other sites may be monitored for a lesser duration at the applicant's discretion, preferably during the same 25-hour period. The results of the noise level measurements shall be reported as hourly averages in Leq (equivalent sound or noise level), Ldn (day-night sound or noise level) or CNEL (Community Noise Equivalent Level) in units of dB(A). The L10, L50, and L90 values (noise levels exceeded 10 percent, 50 percent, and 90 percent of the time, respectively) shall also be reported in units of dB(A).	§ 5.7.2.2; Tables 5.7-4 through 5.7-7; Appendix 5.7A	Yes	
Appendix B (g) (4) (C)	A description of the major noise sources of the project, including the range of noise levels and the tonal and frequency characteristics of the noise emitted.	§§ 5.7.3.3.3, 5.7.3.3.4	Yes	
Appendix B (g) (4) (D)	An estimate of the project noise levels, during both construction and operation, at residences, hospitals, libraries, schools, places of worship or other facilities where quiet is an important attribute of the environment, within the area impacted by the proposed project.	§§ 5.7.3.2.1, 5.7.3.3.3; Table 5.7-9	Yes	

Adequacy Issue: Adequate Inadequate Revision No. <u>0</u> Date: July 30, 2009 **DATA ADEQUACY WORKSHEET** Technical Area: Contra Costa Generating Station Project Technical Staff: Project: Erin Bright Noise Project Manager: Docket: 09-AFC-4 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) (4) (E)	An estimate of the project noise levels within the project site boundary during both construction and operation and the impact to the workers at the site due to the estimated noise levels.	§§ 5.7.3.2.3, 5.7.3.3.1	Yes	
Appendix B (g) (4) (F)	The audible noise from existing switchyards and overhead transmission lines that would be affected by the project and estimates of the future audible noise levels that would result from existing and proposed switchyards and transmission lines. Noise levels shall be calculated at the property boundary for switchyards and at the edge of the rights-of-way for transmission lines.	§ 5.7.3.3.2	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	§ 5.7.6; Tables 5.7-12 and 5.7-13	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 5.7-12	Yes	

California Energy Commission – Siting, Transmission, and Environmental Protection Division

Joseph Douglas

Adequa	cy issue:	Adequate	X	inadequate	DATA ADEQUACY WORKSH	HEET Revision	No. <u>U</u> Date:	July 30, 2009
Technical Area:	Noise	•		Project:	Contra Costa Generating Station Project	Technical Staff:	Erin Bright	
Project Manager:	Joseph Do	uglas		Docket:	09-AFC-4	Technical Senior:	Steve Baker	

SITING REGULATIONS	Information	INFORMATION AFC PAGE NUMBER AND SECTION NUMBER YES OR				
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.	§ 5.7.7	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.	§ 5.7.8	Yes			

Technical Area: Paleontological Resources Project: Contra Costa Generating Station Technical Staff: Patrick Pilling, Ph.D., P.E. Project Manager: Joseph Douglas Docket: 09-AFC-4 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.	Section 1.0, page 1-1; Section 5.8.1, page 5.8-1; Section 5.8.2, page 5.8-5; Section 5.8.3, page 5.8-6; Section 5.8.4, page 5.8-7	Yes	None
Appendix B (g) (16) (A)	Identification of the physiographic province and a brief summary of the geologic setting, formations, and stratigraphy of the project area. The size of the paleonotological study area may vary depending on the depositional history of the region.	Section 5.8.1.1, page 5.8-1	Yes	None
Appendix B (g) (16) (B)	A discussion of the sensitivity of the project area described in subsection (g)(16)(A) and the presence and significance of any known paleontologic localities or other paleontologic resources within or adjacent to the project. Include a discussion of sensitivity for each geologic unit identified on the most recent geologic map at a scale of 1:24,000. Provide rationale as to why the sensitivity was assigned.	Section 5.8.1.3.1, page 5.8-3; Section 5.8.1.3.2, page 5.8-4; Section 5.8.1.3.3, page 5.8-4; Section 5.8.2.1, page 5.8-5; Section 5.8.2.2, page 5.8-6; Table 5.8-1	Yes	
Appendix B (g) (16) (C)	A summary of all local museums, literature searches and field surveys used to provide information about paleontologic resources in the project area described in subsection (g)(16)(A). Identify the dates of the surveys, methods used in completing the surveys, and the names and qualifications of the individuals conducting the surveys.	Section 5.8, page 5.8-1; Section 5.8.1.2, page 5.8-2	Yes	None

Technical Area: Paleontological Resources Project: Contra Costa Generating Station Technical Staff: Patrick Pilling, Ph.D., P.E. Project Manager: Joseph Douglas Docket: 09-AFC-4 Technical Senior: Steve Baker

SITING	INFORMATION	AFC PAGE NUMBER AND	ADEQUATE	INFORMATION REQUIRED TO MAKE AFC CONFORM
REGULATIONS		SECTION NUMBER	YES OR NO	WITH REGULATIONS
Appendix B (g) (16) (D)	Information on the specific location of known paleontologic resources, survey reports, locality records, and maps at a scale of 1:24,000, showing occurrences of fossil finds, if known, within a one-mile radius of the project and related facilities shall be included in a separate appendix to the Application and submitted to the Commission under a request for confidentiality, pursuant to Title 20, California Code of Regulations, s 2501 et seq.	Section 5.8.1.3.2, page 5.8-3	Yes	None
Appendix B (g) (16) (E)	A discussion of any educational programs proposed to enhance awareness of potential impacts to paleontological resources by employees, measures proposed for mitigation of impacts to known paleontologic resources, and a set of contingency measures for mitigation of potential impacts to currently unknown paleontologic resources.	Section 5.8.4, page 5.8-7	Yes	None
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 5.8.5, page 5.8-7; Table 5.8-2	Yes	None

Technical Area: Paleontological Resources Project: Contra Costa Generating Station Technical Staff: Patrick Pilling, Ph.D., P.E. Project Manager: Joseph Douglas Docket: 09-AFC-4 Technical Senior: Steve Baker

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 5.8.6, page 5.8-11; Table 5.8-3	Yes	None
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 5.8.6, page 5.8-11; Table 5.8-3	Yes	None
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 5.8.7, page 5.8-11	Yes	None

Adequ	acy Issue: Adequa	te Inadequate	X	DATA ADEQUACY WORKSH	IEET	Revision No	o. <u>0</u>	Date	July 30, 2009
Technical Area:	Project Overview	Projec	ct:	Contra Costa Generating Station Project	Technical	Staff:	Joseph	Dougla	as
Project Manager:	Joseph Douglas	Docke	et:	09-AFC-08	Technical	Senior:	Robert	Worl	

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Cal. Code Regs., tit. 20, § 1704, (a) (3) (A)	Descriptions of all significant assumptions, methodologies, and computational methods used in arriving at conclusions in the document.		N/A	Please see the individual technical areas for a determination regarding the adequacy of this item.
Cal. Code Regs., tit. 20, § 1704, (a) (3) (B)	Descriptions, including methodologies and findings, of all major studies or research efforts undertaken and relied upon to provide information for the document; and a description of ongoing research of significance to the project (including expected completion dates; and		N/A	Please see the individual technical areas for a determination regarding the adequacy of this item.
Cal. Code Regs., tit. 20, § 1704, (a) (3) (C)	A list of all literature relied upon or referenced in the documents, along with brief discussions of the relevance of each such reference		N/A	Please see the individual technical areas for a determination regarding the adequacy of this item.
Cal. Code Regs., tit. 20, § 1704, (a) (4)	Each principal subject area covered in a notice or application shall be set forth in a separate chapter or section, each of which shall identify the person or persons responsible for its preparation.	Sections 2, 3, 4, 5 and 1C	Yes	
Appendix B (a) (1) (A)	A general description of the proposed site and related facilities, including the location of the site or transmission routes, the type, size and capacity of the generating or transmission facilities, fuel characteristics, fuel supply routes and facilities, water supply routes and facilities, pollution control systems, and other general characteristics.	Page 2-1 – 2-32 Section 2.1 Page 2-33 – 2-45 Sections 2.3, 2.4 and 2.5 Page 3-1 – 3-16 Section 3.1, 3.2 3.3 and 3.4 Page 4-1 – 4-5 Section 4.1, 4.2 and 4.3	Yes	
Appendix B (a) (1) (B)	Identification of the location of the proposed site and related facilities by section, township, range, county and assessor's parcel numbers.	Page 1-2, Section 1.2 Page 2-1, Section 2.1	Yes	

California Energy Commission – Siting, Transmission, and Environmental Protection Division

Adequa	cy Issue: Adequate	Inadequate X	DATA ADEQUACY WORKSH	IEET Revision	on No. <u>0</u> Date <u>July 30, 2009</u>
Technical Area:	Project Overview	Project:	Contra Costa Generating Station Project	Technical Staff:	Joseph Douglas
Project Manager:	Joseph Douglas	Docket:	09-AFC-08	Technical Senior:	Robert Worl

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (a) (1) (C)	A description of and maps depicting the region, the vicinity, and the site and its immediate surroundings.	Page 1-1, Section 1.1 and 1.2 Page 2-1 – 2-2, Section 2.1 Page 5.13-1 – 5.13-19 Section 5.13.1	Yes	
Appendix B (a) (1) (D)	A full-page color photographic reproduction depicting the visual appearance of the site prior to construction, and a full-page color simulation or artist's rendering of the site and all project components at the site, after construction.	Figure 1.1-3, Figure 5.13-2, Figure 5.13-3, Figure 5.13-4, Figure 5.13-5, Figure 5.13-6, Figure 5.13-7, Figure 5.13-8	Yes	
Appendix B (a) (1) (E)	In an appendix to the application, a list of current assessor's parcel numbers and owners' names and addresses for all parcels within 500 feet of the proposed transmission line and other linear facilities, and within 1000 feet of the proposed powerplant and related facilities.	Appendix 1B	Yes	
Appendix B (a) (2)	Project Schedule: Proposed dates of initiation and completion of construction, initial start-up, and full-scale operation of the proposed facilities.	Page 2-32 – 2-35, Sections 2.2 and 2.3	Yes	
Appendix B (a) (3) (A)	A list of all owners and operators of the site(s), the power plant facilities, and, if applicable, thermal host, the geothermal leasehold, the geothermal resource conveyance lines, and the geothermal re-injection system, and a description of their legal interest in these facilities.	Page 1-2, Sections 1.3	Yes	
Appendix B (a) (3) (B)	A list of all owners and operators of the proposed electric transmission facilities.	Page 3-1, Section 3.2	Yes	

Adequa	cy Issue: Adequate	Inadequate X	DATA ADEQUACY WORKSH	HEET Revision	No. <u>0</u> Date <u>July 30, 2009</u>
Technical Area:	Project Overview	Project:	Contra Costa Generating Station Project	Technical Staff:	Joseph Douglas
Project Manager:	Joseph Douglas	Docket:	09-AFC-08	Technical Senior:	Robert Worl

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (a) (3) (C)	A description of the legal relationship between the applicant and each of the persons or entities specified in subsections (a)(3)(A) and (B).	Page 1-2, Sections 1.3	Yes	
Appendix B (b) (1)	In a section entitled, "Generation Facility Description, Design, and Operation" provide the following information:	(See Below)		
Appendix B (b) (1) (A)	Maps at a scale of 1:24,000 (1" = 2000'), (or appropriate map scale agreed to by staff) along with an identification of the dedicated leaseholds by section, township, range, county, and county assessor's parcel number, showing the proposed final locations and layout of the power plant and all related facilities;	Page 2-1 Section 2.1.1 Figure 2.1-1, Figure 2.1-2, Figure 1.1-2	Yes	
Appendix B (b) (1) (B)	Scale plan and elevation drawings depicting the relative size and location of the power plant and all related facilities to establish the accuracy of the photo simulations required in Sections (a)(1)(D) and (g)(6)(F);	Page 5.13-29 Section 5.13.2.3 Figure 2.1-3A and Figure 2.1-3B	Yes	
Appendix B (b) (1) (C)	A detailed description of the design, construction and operation of the facilities, specifically including the power generation, cooling, water supply and treatment, waste handling and control, pollution control, fuel handling, and safety, emergency and auxiliary systems, and fuel types and fuel use scenarios; and	Page 2-1 – 2-37 Section 2.1, 2.2, 2.3 and 2.4 Appendix 2	Yes	

Adequa	cy Issue: Adequate	Inadequate X	DATA ADEQUACY WORKSH	EET Revision	No. <u>0</u> Date <u>July 30, 2009</u>
Technical Area:	Project Overview	Project:	Contra Costa Generating Station Project	Technical Staff:	Joseph Douglas
Project Manager:	Joseph Douglas	Docket:	09-AFC-08	Technical Senior:	Robert Worl

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (1) (D)	A description of how the site and related facilities were selected and the consideration given to engineering constraints, site geology, environmental impacts, water, waste and fuel constraints, electric transmission constraints, and any other factors considered by the applicant.	Page 1-1 through 1-2, Section 1.1 Page 6-1 – 6-22 Section 6	Yes	
Appendix B (b) (2)	In a section entitled, "Transmission Lines Description, Design, and Operation" provide the following information:	(See Below)	Yes	
Appendix B (b) (2) (A)	Maps at a scale of 1:24,000 (or appropriate map scale agreed to by staff) of each proposed transmission line route, showing the settled areas, parks, recreational areas, scenic areas, and existing transmission lines within one mile of the proposed route(s);	Page 3-1, Section 3.2 Figure 3.2-1 Page 5.6-1 – 5.6-29 Section 5 Figure 5.6-1, Figure 5.6-2, Figure 5.6-3 and Figure 5.6-4	No	Please provide the transmission line route, showing the settled areas, parks, recreational areas, scenic areas, and existing transmission lines within one mile of the proposed route The maps do not identify all transmission routes and are only a ¼ mile around the transmission line corridor.
Appendix B (b) (2) (B)	A full-page color photographic reproduction depicting a representative above ground section of the transmission line route prior to construction and a full-page color photographic simulation of that section of the transmission line route after construction.	Figure 5.13.1. Figure 5.13-3, Figure 5.13-7 and 5.13-8	Yes	

Adequa	cy Issue: Adequate	Inadequate X	DATA ADEQUACY WORKSH	EET Revision	No. <u>0</u> Date <u>July 30, 2009</u>
Technical Area:	Project Overview	Project:	Contra Costa Generating Station Project	Technical Staff:	Joseph Douglas
Project Manager:	Joseph Douglas	Docket:	09-AFC-08	Technical Senior:	Robert Worl

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.	Pages 3-1 through 3-20, Section 3	Yes	
Appendix B (b) (2) (D)	A description of how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electric transmission constraints; and	Pages 3-1 through 3-20, Section 3	Yes	
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Pages 2-44 - 2-45, Section 2.7	Yes	

Adequacy Issue:

Project Manager:

Adequate

▼ Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date July 30, 2009

Technical Area: Public Health

Joseph Douglas

Project: Docket: Contra Costa Generating Station
09-AFC-4

Technical Staff: Obed Od Technical Senior: Matt Lay

Obed Odoemelam

Matt 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 5.1, pages 5.1-1, and 5.1-2, pages 5.1-11 through 5.1-16. Section 5.9, pages 5.9-1 and 5.9-2.	Yes	
Appendix B (g) (9) (A)	An assessment of the potential risk to human health from the project's hazardous air emissions using the Air Resources Board Hotspots Analysis and Reporting Program (HARP) (HSC §§44360-44366) or its successor and Approved Risk Assessment Health Values. These values should include the cancer potency values and noncancer reference exposure levels approved by the Office of Environmental Health Hazard Assessment (OEHHA Guidelines, Cal-EPA 2005).	Section 5.9, pages 5.9-6 through 5.9-10.	Yes	
Appendix B (g) (9) (B)	A listing of the input data and output results, in both electronic and print formats, used to prepare the HARP health risk assessment.	Section 5.9, page 5.9-2, and Appendix 5.1D.	Yes	
Appendix B (g) (9) (C)	Identification of available health studies through the local public health department concerning the potentially affected population(s) within a six-mile radius of the proposed power plant site related to respiratory illnesses, cancers or related diseases.	Section 5.9, page 5.9-6.	Yes	
Appendix B (g) (9) (D)	A map showing sensitive receptors within the area exposed to the substances identified in subsection (g)(9)(A).	Appendix 5.1D	Yes	

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Adequacy Issue:

Adequate

Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date July 30, 2009

Technical Area: Project Manager:

Public Health Joseph Douglas Project: Contra Costa Generating Station 09-AFC-4 Docket:

Technical Staff: Technical Senior:

Matt Layton

Obed Odoemelam

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (9) (E) Appendix B (g) (9) (E) (i)	For purposes of this section, the following definitions apply: A sensitive receptor refers to infants and children, the elderly, and the chronically ill, and any other member of the general population who is more susceptible to the effects of the exposure than the population at large;	Section 5.9, pages 5.9-3 through 5.9-4.	Yes	
Appendix B (g) (9) (E) (ii)	An acute exposure is one which occurs over a time period of less than or equal to one (1) hour; and	Section 5.9, pages 5.9-2 through 5.9-6.	Yes	
Appendix B (g) (9) (E) (iii)	A chronic exposure is one which is greater than twelve (12) percent of a lifetime of seventy (70) years.	Section 5.9, pages 5.9-3 through 5.9-6.		
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 5.9, pages 5.9-14 and 5.9-15.	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 5.9, page 5.9-15.	Yes	

Adequacy Issue:

Adequate

Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date July 30, 2009

Technical Area: Public Health
Project Manager: Joseph Douglas

Project: Contra Costa Generating Station
Docket: 09-AFC-4

Technical Staff:

Technical Senior:

Obed Odoemelam

Public Health

r: Matt Layton

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 5.9, page 5.9-16.	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.	Section 5.9, page 5.9-16.	Yes	

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Technical Area:ReliabilityProject:Contra Costa Generating StationTechnical Staff:Shahab KhoshmashrabProject Manager:Joseph DouglasDocket:09-AFC-4Technical Senior:Steve Baker

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	§§ 1.1, 1.2, 2.0, 2.1, 2.1.2	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.	§§ 2.1.6, 2.5.3, 4.0	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;	§ 2.6	Yes	
Appendix B (h) (3) (B) (ii)	The demonstrated or anticipated feasibility of the technologies, systems, components, and measures proposed to be employed in the facilities, including the power generation system, the heat dissipation system, the water supply system, the reinjection system, the atmospheric emission control system, resource conveyance lines, and the waste disposal system;	§§ 1.1, 1.2, 2.0, 2.1, 2.1.7, 2.1.8, 2.1.10, 2.5	Yes	
Appendix B (h) (3) (B) (iii)	Geologic and flood hazards, meteorologic conditions and climatic extremes, and cooling water availability;	§§ 2.1.8, 2.5.4, 5.4	Yes	
Appendix B (h) (3) (B) (iv)	Special design features adopted by the applicant or resource supplier to ensure power plant reliability including equipment redundancy; and	§ 2.5	Yes	

California Energy Commission – Siting, Transmission, and Environmental Protection Division

Adequa	acy Issue:	Adequate	X	Inadequate	DATA ADEQUACY WOR	RKSHEET	Revision I	No. <u>0</u>	Date	July 30, 2009
Technical Area:	Reliabilit	у		Project:	Contra Costa Generating Station	Technical	Staff:	Shaha	b Khos	hmashrab
Project Manager:	Joseph Do	ouglas		Docket:	09-AFC-4	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) (v)	For technologies not previously installed and operated in California, the expected power plant maturation period.	N/A	N/A	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	N/A	N/A	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	N/A	N/A	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	N/A	N/A	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	N/A	N/A	

California Energy Commission – Siting, Transmission, and Environmental Protection Division

Project Manager:

Technical Area: Socioeconomics Project: Contra Costa Generating Station Technical Staff: Amanda Stennick

Project Manager: Joe Douglas Docket: 09-AFC-4 Technical Senior: Amanda Stennick/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.	Section 5.10	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:	Section 5.10	Yes	
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;	Sections 5.10.1.3 and .4 Tables 5.10-5 and -6	Yes	
Appendix B (g) (7) (A) (ii)	The social characteristics, including population and demographic and community trends;	Section 5.10.1.1 Table 5.10-1 Figures 5.10-1 and -2	Yes	
Appendix B (g) (7) (A) (iii)	Existing unemployment rates;	Table 5.10-5	Yes	
Appendix B (g) (7) (A) (iv)	Availability of skilled workers by craft required for construction and operation of the project;	Table 5.10-10	Yes	
Appendix B (g) (7) (A) (v)	Availability of temporary and permanent housing and current vacancy rate; and	Section 5.10.1.2 Table 5.10-3	Yes	

Adequ	acy Issue:	Adequate	X	Inadequate	DATA ADEQUACY WORK	SHEET	Revision	No. <u>0</u>	Date	<u>July 30, 2009</u>
Technical Area:	Socioec	onomics		Project:	Contra Costa Generating Station	Technica	l Staff:	Aman	da Sten	nick
Project Manager:	Joe Doug	as		Docket:	09-AFC-4	Technica	l Senior:	Aman Flores		nick/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) (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.	Sections 5.10.1.5 through 5.10.1.7.3 Table 5.10	Yes	
Appendix B (g) (7) (B)	A discussion of the socioeconomic impacts caused by the construction and operation of the project (note year of estimate, model, if used, and appropriate sources), including:	See below	Yes	
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;	Section 5.10.2.3.1 Table 5.10	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 5.10.2.3.2	Yes	
Appendix B (g) (7) (B) (iii)	An estimate of the potential population increase caused directly and indirectly by the project;	Section 5.10.2.3.2	Yes	
Appendix B (g) (7) (B) (iv)	The potential impact of population increase on housing during the construction and operations phases;	Section 5.10.2.3.3	Yes	

Adequa	acy Issue:	Adequate	X	Inadequate	DATA ADEQUACY WO	RKSHEET	Revision N	o. <u>0</u> Date	July 30, 2009
Technical Area:	Socioeco	nomics		Project:	Contra Costa Generating Station	Technical	Staff:	Amanda Steni	nick
Project Manager:	Joe Dougla	ıs		Docket:	09-AFC-4	Technical	Senior:	Amanda Steni	nick/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) (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;	Sections 5.10.2.3.4. through 5.10.2.4.8	Yes	
Appendix B (g) (7) (B) (vi)	An estimate of applicable school impact fees;	Section 5.10.2.4.6	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;	Sections 5.10.2.3.4 and 5.10.2.4.4	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;	Sections 5.10.2.3.4 and 5.10.2.4.4	Yes	
Appendix B (g) (7) (B) (ix)	An estimate of the capital cost (plant and equipment) of the project;	Section 5.10.2.3.5	Yes	
Appendix B (g) (7) (B) (x)	An estimate of sales taxes generated during construction and separately during an operational year of the project;	Sections 5.10.2.3.5 and 5.10.2.4.5	Yes	
Appendix B (g) (7) (B) (xi)	An estimate of property taxes generated during an operational year of the project; and	Section 5.10.2.4.5	Yes	

California Energy Commission – Siting, Transmission, and Environmental Protection Division Flores

Adequa	acy Issue:	Adequate	X	Inadequate	DATA ADEQUACY WOR	KSHEET	Revision	No. <u>0</u> Date	July 30, 2009
Technical Area:	Socioeco	onomics		Project:	Contra Costa Generating Station	Technica	ıl Staff:	Amanda Ste	nnick
Project Manager:	Joe Dougl	as		Docket:	09-AFC-4	Technica	l Senior:	Amanda Ste Flores	nnick/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) (7) (B) (xii)	The expected direct, indirect, and induced income and employment effects due to construction, operation, and maintenance of the project.	Sections 5.10.2.3.4 and 5.10.2.4.4	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 5.10-12	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 5.10-12 Sections 5.10.5.3.1 and .2	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 5.10-13	Yes	

Adequa	acy Issue:	Adequate	X	Inadequate	DATA ADEQUACY WORK	SHEET	Revision I	No. <u>0</u> Date <u>.</u>	July 30, 2009
Technical Area:	Socioeco	nomics		Project:	Contra Costa Generating Station	Technica	al Staff:	Amanda Stenni	ck
Project Manager:	Joe Dougla	as		Docket:	09-AFC-4	Technica	al Senior:	Amanda Stenni Flores	ck/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) (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 5.10.7	Yes	

Technical Area: Soils Project: Contra Costa Generating Station Technical Staff: Mark Lindley
Project Manager: Joe Douglas Docket: 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 5.11 Pages 1-13	Yes	
Appendix B (g) (15) (A)	A map at a scale of 1:24,000 and written description of soil types and all agricultural land uses that will be affected by the proposed project. The description shall include:	Section 5.11.1 Figure 5.11-1	Yes	
Appendix B (g) (15) (A) (i)	The depth, texture, permeability, drainage, erosion hazard rating, and land capability class of the soil;	Section 5.11.1 Pages 5-6 Table 5.11-1	Yes	
Appendix B (g) (15) (A) (ii)	An identification of other physical and chemical characteristics of the soil necessary to allow an evaluation of soil erodibility, permeability, revegetation potential, and cycling of pollutants in the soil-vegetation system;	Section 5.11.1 Pages 5-6 Table 5.11-1	Yes	
Appendix B (g) (15) (A) (iii)	The location of any proposed fill disposal or fill procurement (borrow) sites; and	Section 2.2.1.4 Page 2-33 Figure 1.1-2	Yes	
Appendix B (g) (15) (A) (iv)	The location of any contaminated soils that could be disturbed by project construction.	Section 5.11.1.5 Page 6 Section 5.14.1 Pages 1-3 Appendix 5.14A	Yes	
Appendix B (g) (15) (B)	An assessment of the effects of the proposed project on soil resources and agricultural land uses. This discussion shall include:	Section 5.11.2.2 Page 7	Yes	

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California Energy Commission – Siting, Transmission, and Environmental Protection Division

Adequacy Issue: Adequate Inadequate Revision No. 0 Date July 30, 20009 **DATA ADEQUACY WORKSHEET** Soils Project: Contra Costa Generating Station Technical Staff: Technical Area: Mark Lindley Project Manager: Joe Douglas Docket: 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) (15) (B) (i)	The quantification of accelerated soil loss due to wind and water erosion; and	Section 5.11.2.4 Pages 9-10	Yes	
Appendix B (g) (15) (B) (ii)	The effect of power plant emissions on surrounding soil-vegetation systems.	Section 5.11.3 Page 11	Yes	Limited information on potential impacts, however the site is not located within an agricultural or sensitive habitat area.
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 5.11.5 Pages 14-16 Table 5.11-5	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.	Section 5.11.5 Pages 14-16 Table 5.11-5	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 5.11.6 Pages 16-17 Table 5.11-6	Yes	

Adequacy	/ issue:	Adequate	X	inadequate	DATA ADEQUACY WORKS	HEET	Revision ino	. 0	Date	July 30, 2000
Technical Area:	Soils			Project:	Contra Costa Generating Station	Technica	l Staff:	Mark Lin	dley	
Project Manager:	Joe Dougl	as		Docket:		Technica	l Senior:	Paul Mai	rshall	

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.11.6 Pages 16-17	Yes	

Technical Area: Traffic and Transportation Project: Contra Costa Generating Station Technical Staff: James Adams
Project Manager: Joseph Douglas Docket: 09-AFC-4 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.	PP. 5.12-1 through 12-34 Section 5.12	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 5.12-1 PP 5.12-10 & 12-15 Section 5.12.1.4.2	Yes	
Appendix B (g) (5) (B)	If the proposed project including any linear facility is to be located within 20,000 feet of an airport runway that is at least 3,200 feet in actual length, or 5,000 feet of a heliport (or planned or proposed airport runway or an airport runway under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration), discuss the project's compliance with the applicable sections of the current Federal Aviation Regulation Part 77 – Objects Affecting Navigable Airspace, specifically any potential to obstruct or impede air navigation generated by the project at operation; such as, a thermal plume, a visible water vapor plume, glare, electrical interference, or surface structure height. The discussion should include a map at a scale of 1:24,000 that displays the airport or airstrip runway configuration, the proposed power plant site and related facilities.	PP. 5.12-55 & 12-16 Section 5.12.1.8	Yes	

Technical Area: Traffic and Transportation Project: Contra Costa Generating Station Technical Staff: James Adams

Project Manager: Joseph Douglas Docket: 09-AFC-4 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) (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 5.12-2	Yes	
Appendix B (g) (5) (C) (i)	Road classification and design capacity;	Tables 5.12-3 & 12-4 PP. 5.12-7 & 12-8 Section 5.12.1.2.1	Yes	
Appendix B (g) (5) (C) (ii)	Current daily average and peak traffic counts;	Table 5.12-4 Pg. 5.12-8 Section 5.12.1.2.1 Figures 5.12-3 & 12-4	Yes	
Appendix B (g) (5) (C) (iii)	Current and projected levels of service before project development, during construction, and during project operation;	Table 5.12-4 & 12-6 Pg 5.12-8 & 12-10 Section 5.12.1.2.1 Table 5.12-8, Pg. 5.12-18 Section 5.12.2.1.3	Yes	
Appendix B (g) (5) (C) (iv)	Weight and load limitations;	Pg. 5.12-10 Section 5.12.1.3	Yes	
Appendix B (g) (5) (C) (v)	Estimated percentage of current traffic flows for passenger vehicles and trucks; and	Table 5.12-4 Pg. 5.12-8 Section 5.12.1.2.1	Yes	
Appendix B (g) (5) (C) (vi)	An identification of any road features affecting public safety.	Pg. 5.12-25 Section 5.12.2.3	Yes	

Technical Area: Traffic and Transportation Project: Contra Costa Generating Station Technical Staff: James Adams
Project Manager: Joseph Douglas Docket: 09-AFC-4 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) (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).	Tables 5.12-7 & 12-8 PP. 5.12-17 & 12-18 Section 5.12.2.1.1	Yes	
Appendix B (g) (5) (E)	A discussion of project-related hazardous materials to be transported to or from the project during construction and operation of the project, including the types, estimated quantities, estimated number of trips, anticipated routes, means of transportation, and any transportation hazards associated with such transport.	PP. 5.12-23 through 12-25 Section 5.12.2.2	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 5.12-10 PP. 5.12-27 & 12-2 Section 5.12.5	Yes	

Technical Area: Traffic and Transportation Project: Contra Costa Generating Station Technical Staff: James Adams
Project Manager: Joseph Douglas Docket: 09-AFC-4 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.	Table 5.12-12 Pg. 5.12-33 Section 5.12.7	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 5.12-12 Pg. 5.12-33 Section 5.12.7	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Table 5.12-12 Pg. 5.12-33 Section 5.12.7	Yes	

Technical Area: Trans Line Safety & Nuisance Project: Contra Costa Generating Station Technical Staff: Obed Odoemelam Project Manager: Joseph Douglas Docket: 09-AFC-4 Technical Senior: Matt 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 2.0, pages 2-15 and 2-16. Appendices 3A and 3B. Section 3.0, pages 3-1 and 3-2.	Yes	
Appendix B (g) (18) (A)	The locations and a description of the existing switchyards and overhead and underground transmission lines that would be affected by the proposed project.	Section 2.0, page 2-32.	Yes	
Appendix B (g) (18) (B)	An estimate of the existing electric and magnetic fields from the facilities listed in (A) above and the future electric and magnetic fields that would be created by the proposed project, calculated at the property boundary of the site and at the edge of the rights of way for any transmission line. Also provide an estimate of the radio and television interference that could result from the project.	Appendix 3B.	Yes	
Appendix B (g) (18) (C)	Specific measures proposed to mitigate identified impacts, including a description of measures proposed to eliminate or reduce radio and television interference, and all measures taken to reduce electric and magnetic field levels.	Section 3.0, pages 3-2 through 3-14. Appendix 3B.	Yes	

Technical Area: Trans Line Safety & Nuisance Project: Contra Costa Generating Station Technical Staff: Obed Odoemelam

Project Manager:Joseph DouglasDocket:09-AFC-4Technical Senior:Matt Layton

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (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 3.0, pages 3-17 through 3-19.	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 3.0, page 3-20.	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 3.0, page 3-20.	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 3.0, page 3-16.	Yes	

Technical Area:Transmission System DesignProject:Contra Costa Generating StationTechnical Staff:Laiping NgProject Manager:Joseph DouglasDocket:09-AFC-4Technical 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 1.1 Page 1-1 to 1-2	Yes	
Appendix B (h) (2) (B)	A discussion of the extent to which the proposed electric transmission facilities have been designed, planned, and routed to meet the transmission requirements created by additional generating facilities planned by the applicant or any other entity.	Section 2.0 Page 2-1 Section 3.2 Page 3-1 to 3-2	Yes	
Appendix B (b) (2) (C)	A detailed description of the design, construction, and operation of any electric transmission facilities, such as power lines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility. Such description shall include the width of rights of way and the physical and electrical characteristics of electrical transmission facilities such as towers, conductors, and insulators.	Section 3.2 Page 3-1 to 3-2 Figure 2.1-5 Figure 3.2-2	No	 Please provide a detailed one-line diagram for the existing Contra Costa Substation before the interconnection of the project. Please provide a detailed one-line diagram for the existing Contra Costa Substation after addition of the project. Show bay arrangement of the necessary equipment which are required to interconnect the project. Provide ratings of the breakers, disconnect switches, relays, buses, and etc. Please resubmit Figure 2.1-5. Show all auxiliary load equipments and their ratings.

Technical Area: Transmission System Design
Project: Manager: Joseph Douglas
Project Manager: Docket: 09-AFC-4
Technical Staff: Laiping Ng
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) (D)	A description of how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electric transmission constraints.	Section 2.1.5 Page 2-15 to 2-16	Yes	
Appendix B (b) (2) (E)	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. 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.	Section 3.3 Page 3-2 Appendix 3A	Yes	

Technical Area:Transmission System DesignProject:Contra Costa Generating StationTechnical Staff:Laiping NgProject Manager:Joseph DouglasDocket:09-AFC-4Technical 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) (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 3.5 Page 3-16 to 3-19	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 3.5.7 Page 3-20	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.	NA		
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 3.3 Page 3-2	No	Please provide schedules for the CAISO Phase I and Phase II interconnection Studies of the proposed project to the CAISO control grid.

Adequacy Issue: Adequate Inadequate Revision No. 0 Date July 30, 2009 **DATA ADEQUACY WORKSHEET** Technical Staff: Contra Costa Generating Station Technical Area: Project: Marie McLean **Visual Resources** Project Manager: Joseph Douglas Docket: 09-AFC-4 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.	Page 5.13-19, Section 5.13.1.3; Page 5.13-30, Section 5.13.2.3.4; Page 5.13-33, Section 5.13.2.3.6; Page 5.13.33, Section 5.13.2.3.7	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:	Page 5.13-40, Section 5.13-42	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 5.13-1	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.	Page 5.13.1-2, Section 5. 13.1.1; Page 5.13-29, Section 5.13.2.2.2; Page 5.13-29, Section 5.13.2.3.6; Page 5.13-33; Section 5.13.2.3.3, Page 5.13-29; Page 5.13-30, Section 5.13.2.35; Page 5.13.2.48, Page 5.13-28; Secton 5.13.2.49, Page 5.13-38	Yes	

Adequ	acy Issue: Adequa	e x	Inadequate	DATA ADEQUACY WOR	RKSHEET Revision	n No. <u>0</u> Date	July 30, 2009
Technical Area:	Visual Resources		Project:	Contra Costa Generating Station	Technical Staff:	Marie McLean	
Project Manager:	Joseph Douglas		Docket:	09-AFC-4	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.	Page 5.13-1-2; Section 5.13.1.1; Page 5.13-19, Section 5.13.1.2; Page 5.13-19, Section 5.13.1.3; Page 5.13-19 through 26, Section 5.13.1.4	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.	Page 5.13-2, Section 5.13-2; Figure 5-4; Section 5.13.2.4, Pages 5.13-33 through 5-13-38	Yes	

Adequacy Issue: Adequate Inadequate Revision No. 0 Date July 30, 2009 **DATA ADEQUACY WORKSHEET** Contra Costa Generating Station Technical Staff: Technical Area: Project: Marie McLean **Visual Resources** Project Manager: Joseph Douglas Docket: 09-AFC-4 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 5.13-1, Page 5.13-29	Yes	
Appendix B (g) (6) (E)	Provide the cooling tower and heat recovery steam generator (HRSG) exhaust design parameters that affect visible plume formation. For the cooling tower, data shall include heat rejection rate, exhaust temperature, exhaust mass flow rate, liquid to gas mass flow ratio, and, if the tower is plume-abated, moisture content (percent by weight) or plume-abated fogging curve(s). The parameters shall account for a range of ambient conditions (temperature and relative humidity) and proposed operating scenarios, such as duct firing and shutting down individual cells. For the heat recovery steam generator exhausts, data shall include moisture content (percent by weight), exhaust mass flow rate, and exhaust temperature. The parameters must correspond to full-load operating conditions at specified ambient conditions, and shall account for proposed operating scenarios, such as power augmentation (i.e., evaporative coolers, inlet foggers, or steam injection) and duct firing, or proposed HRSG visible plume abatement, such as the use of an economizer bypass. For simple-cycle projects, provide analogous data for the exhaust stack(s).	Table 5.1-1, Page 5.1-3; Tab le 5.1.2.2.1, Page 5.1-3; Table 5.1.2.2.2, Page 5.1-3; Table 5.1.2.2.3, Page 5.1-3; Table 5.1.2.2.5, Page 5.1-4; Table 5.1-2, Page 5.1-4	Yes	

Adequacy Issue: Adequate Adequate DATA ADEQUACY WORKSHEET Revision No. 0 Date July 30, 2009

Technical Area: Visual Resources Project: Contra Costa Generating Station Technical Staff: Marie McLean

Technical Senior:

David Flores

Docket:

09-AFC-4

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (F)	Provide: i) full-page color photographic reproductions of the existing site, and ii) full-page color simulations of the proposed project at life-size scale when the picture is held 10 inches from the viewer's eyes, including any project-related electrical transmission lines, in the existing setting from each key observation point. If any landscaping is proposed to comply with zoning requirements or to mitigate visual impacts, include the landscaping in simulation(s) representing sensitive area views, depicting the landscaping five years after installation; and estimate the expected time until maturity is reached.	Figure 1.1-3 Page 5.13-30; Section 5.13-30	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.	Page 5.13-33, Section 5.13.2.3.7	Yes	
Appendix B (g) (6) (H)	If any landscaping is proposed to reduce the visual impacts of the project, provide a conceptual landscaping plan at a 1:40 scale (1"=40"). Include information on the type of plant species proposed, their size, quantity, and spacing at planting, expected heights at 5 years and maturity, and expected growth rates.	Figure 5.13-9	Yes	

Project Manager:

Joseph Douglas

Adequacy Issue: Adequate Inadequate Revision No. 0 Date July 30, 2009 **DATA ADEQUACY WORKSHEET** Technical Staff: Contra Costa Generating Station Technical Area: Project: Marie McLean **Visual Resources** Project Manager: Joseph Douglas Docket: 09-AFC-4 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) (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	Page 5.13-42; Table 5.213-2; Page 5.13-43, Table 5.13-3; Page 5.1343-44; Table 5.13-4; Page 5.13-44, Table 5.13-5	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 5.13-45; Table 5.13-6	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 5.13-45; Table 5.13-6	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 5.13-45; Table 5.13-7	Yes	

Adequ	acy Issue: Adequate	Inadequate X	DATA ADEQUACY WOR	KSHEET Revision	No. <u>0</u> Date	July 30, 2009
Technical Area:	Waste Management	Project:	Contra Costa Generating Station	Technical Staff:	Ellie Townser	nd-Hough
Project Manager:	Joseph Douglas	Docket:	09-AFC-4	Technical Senior:	Paul Marshal	

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (1) (C)	A detailed description of the design, construction and operation of the facilities, specifically including the power generation, cooling, water supply and treatment, waste handling and control, pollution control, fuel handling, and safety, emergency and auxiliary systems, and fuel types and fuel use scenarios; and	Section 2.0	Yes	
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Page 2-43 – 2-44 Section 2.7, Page 5.14-13 Section 5.14.4.3	Yes	
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Page 5.14-1- 5.14-2 Section 5.14.1.1.1 - 5.14.1.1.2, Page 5.14-2 Section 5.14.1.1.2 Section 5.14.3, Section 5.14.4	Yes	

Adequacy Issue: Adequate Inadequate X DATA ADEQUACY WORKSHEET Revision No. 0 Date July 30, 2009

Technical Area: Waste Management Project: Contra Costa Generating Station Technical Staff: Ellie Townsend-Hough

Project Manager: Joseph Douglas Docket: 09-AFC-4 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) (12) (A)	A Phase I Environmental Site Assessment (ESA) for the proposed power plant site using methods prescribed by the American Society for Testing and Materials (ASTM) document entitled "Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process" (Designation: E 1527-93, May 1993), which is incorporated by reference in its entirety; or an equivalent method agreed upon by the applicant and the CEC Staff that provides similar documentation of the potential level and extent of site contamination. The Phase I ESA shall have been completed no earlier than one year prior to the filing of the AFC.		No	Regulations state "The Phase I ESA shall have been completed no earlier than one year prior to the filing of the AFC." The Phase I and II Environmental Site Assessments are five years old. There is no verification that no facilities, construction or agricultural has been located on the proposed project site in the last five years. Page 5.14-1 notes that the California Department of Toxic Substance Control released the Western Development Area and Eastern Development Area from further regulatory oversight on May 1, 2006. Documentation for the oversight release is not included. There is also no Phase I for the 2.4-mile long transmission line.
Appendix B (g) (12) (B)	A description of each waste stream estimated to be generated during project construction and operation, including origin, hazardous or nonhazardous classification pursuant to Title 22, California Code of Regulations, § 66261.20 et seq., chemical composition, estimated annual weight or volume generated, and estimated frequency of generation.	Table 5.14-1 Table 5.14-2	Yes	
Appendix B (g) (12) (C)	A description of all waste disposal sites which may feasibly be used for disposal of project wastes. For each site, include the name, location, classification under Title 23, California Code of Regulations, § 2530 et seq., the daily or annual permitted capacity, daily or annual amounts of waste currently being accepted, the estimated closure date and remaining capacity, and a description of any enforcement action taken by local or state agencies due to waste disposal activities at the site.	Table 5.14-3 Section 5.14.2.3.1 Section 5.14.2.3.2	Yes	

Adequa	cy Issue: Adequate	Inadequate X	DATA ADEQUACY WORKS	SHEET Revision	n No. <u>0</u> Date <u>July 30, 2009</u>
Technical Area:	Waste Management	Project:	Contra Costa Generating Station	Technical Staff:	Ellie Townsend-Hough
Project Manager:	Joseph Douglas	Docket:	09-AFC-4	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) (12) (D)	A description of management methods for each waste stream, including methods used to minimize waste generation, length of on- and off-site waste storage, re-use and recycling opportunities, waste treatment methods used, and use of contractors for treatment.	Table 5.14-1 Table 5.14-2	Yes	
Appendix B (h) (1) (B)	A discussion of any measures proposed to improve adverse site conditions.	Section 5.14.1.1.2	Yes	
Appendix B (h) (1) (D) (v)	The waste disposal system and on-site disposal sites;	Section 5.14.2.3.3,Section 5.14.4.1.1	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 5.14-4	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 5.14-4 Table 5.14-5	Yes	

Adequa	cy Issue: Adequate	Inadequate X	DATA ADEQUACY WORKSH	HEET Revision	No. <u>0</u> Date <u>July 30, 2009</u>
echnical Area:	Waste Management	Project:	Contra Costa Generating Station	Technical Staff:	Ellie Townsend-Hough
roject Manager:	Joseph Douglas	Docket:	09-AFC-4	Technical Senior:	Paul Marshall

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (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 5.14-5	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Table 5.14.7	Yes	

Technical Area:Water ResourcesProject:Contra Costa Generating StationTechnical Staff:Mark LindleyProject Manager:Joseph DouglasDocket: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.	Sections 5.15.1-4 Pages 1-20		
Appendix B (g) (14) (A)	All the information required to apply for the following permits, if applicable, including:			
Appendix B (g) (14) (A) (i)	Waste Discharge Requirements; National Pollutant Discharge Elimination System Permit; and/or a Section 401 Certification or Waiver from the appropriate Regional Water Quality Control Board (RWQCB);	Sections 5.15.2, 4, &5 Pages 18-22	Yes	
Appendix B (g) (14) (A) (ii)	Construction and Industrial Waste Discharge and/or Industrial Pretreatment permits from wastewater treatment agencies;	Sections 5.15.2, 4, &5 Pages 18-22 Appendix 2J	Yes	
Appendix B (g) (14) (A) (iii)	Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers; and	NA		
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.	NA		

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California Energy Commission – Siting, Transmission, and Environmental Protection Division

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (B)	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 5.15.1 Pages 1- 9 Tables 5.15-1, 2, 3, & 4 Figures 5.15-1, 2, &3	Yes	
Appendix B (g) (14) (B) (i)	Ground water bodies and related geologic structures;	Section 5.15.1.2 Page 6 Figure 5.15-2	Yes	
Appendix B (g) (14) (B) (ii)	Surface water bodies;	Section 5.15.1.1 Pages1-5 Figure 5.15-1	Yes	
Appendix B (g) (14) (B) (iii)	Water inundation zones, such as the 100-year flood plain and tsunami run-up zones;	Section 5.15.1.3 Page 9 Figure 5.15-3	Yes	
Appendix B (g) (14) (B) (iv)	Flood control facilities (existing and proposed); and	Section 5.15.1.6 Pages 15-15 Figure 5.15-4 Appendix 5.15A	Yes	
Appendix B (g) (14) (B) (v)	Groundwater wells within ½ mile if the project will include pumping.	NA		
Appendix B (g) (14) (C)	A description of the water to be used and discharged by the project. This information shall include:	Sections 5.15.4 & 5 Pages 9-13		
Appendix B (g) (14) (C) (i)	Source(s) of the primary and back-up water supplies and the rationale for their selection;	Section 5.15.4 Pages 9&10		

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (C) (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 5.15.4 & 5 Pages 9-14 Tables 5.15-5 & 6	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 2.1.8 Pages 20-27 Section 5.15.1.4, 5, & 7 Pages 9-14 and 17	Yes	
Appendix B (g) (14) (C) (iv)	A detailed description of all facilities to be used in water conveyance (from primary source to the power plant site), water treatment, and wastewater discharge. Include a water mass balance diagram;	Section 2.1.8 Pages 20-27 Figures 2.1-6A&B	Yes	

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (C) (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;	Appendices 2I & J	Yes	

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (C) (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);	NA		
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	Figures 2.1-6A&B	Yes	

Technical Area:Water ResourcesProject:Contra Costa Generating StationTechnical Staff:Mark LindleyProject Manager:Joseph DouglasDocket:Technical Senior:Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (C) (viii)	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.	Appendices 2I & J	Yes	
	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.			

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (D)	Identify all project elements associated with stormwater drainage, including a description of the following:			
Appendix B (g) (14) (D) (i)	Monthly and/or seasonal precipitation and stormwater runoff and drainage patterns for the proposed site and surrounding area that may be affected by the project's construction and operation;	Section 5.15.1 Pages 1-17 Table 5.15-3 Figure 5.15-4 Appendix 5.15A	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 5.15.1.6 Pages 16-17 Figure 5.15-4 Appendix 5.15A	Yes	
Appendix B (g) (14) (D) (iii)	All assumptions and calculations used to calculate runoff and to estimate changes in flow rates between pre- and post construction; and	Section 5.15.1.6 Pages 16-17 Figure 5.15-4 Appendix 5.15A	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.	Sections 5.15.1.6, 5.15.2.2, and 5.15.3 Pages & 16-18, & 22	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:			

Technical Area:Water ResourcesProject:Contra Costa Generating StationTechnical Staff:Mark LindleyProject Manager:Joseph DouglasDocket:Technical Senior:Paul Marshall

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (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 5.15.2 & 3 Pages 17-20	Yes	
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;	NA		
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 5.15.2.2.1 and 5.15.4 Page 18-20	Yes	

California Energy Commission – Siting, Transmission, and Environmental Protection Division

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (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;"	Sections 2.1.8.2 & 3 Pages 25-26 Sections 5.15.1.5 & 5.15.2.1 Pages 13-14, & 18 Section 6.6.5 Pages 21-22	Yes	
Appendix B (g) (14) (v)	If using fresh water, include a discussion of the cumulative impacts, alternative water supply sources and alternative cooling technologies considered as part of the project design. Include an explanation of why alternative water supplies and alternative cooling are "environmentally undesirable," or "economically unsound;	Section 2.1.8 Pages 24-26 Section 5.15.4 Pages 9-13	Yes	
Appendix B (g) (14) (vi)	The effects of the project on the 100- year flood plain, flooding potential of adjacent lands or water bodies, or other water inundation zones; and	Section 5.15.1.6 Pages 16-17 Figures 5.15-3 & 4 Appendix 5.15A	Yes	
Appendix B (g) (14) (vii)	All assumptions, evidence, references, and calculations used in the analysis to assess these effects.	Appendix 5.15A	Yes	

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	Sections 5.15.5 Pages 20-23 Table 5.15-7	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.	Sections 5.15.5 & 6 Pages 20-23 Table 5.15-7 & 8	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.	Sections 5.15.6 Page 23 Table 5.15-8	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Sections 5.15.6 Page 23 Table 5.15-8	Yes	

Adequacy Issue: Adequate Inadequate Revision No. 0 Date July 30, 2009 **DATA ADEQUACY WORKSHEET**

Technical Area: Technical Staff: **Worker Safety** Project: Contra Costa Generating Station Rick Tyler Project Manager: Joseph Douglas Docket: 09-AFC-4 **Technical Senior:** Rick Tyler

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (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 5.16	Yes	
Appendix B (g) (11) (A)	A description of the safety training programs which will be required for construction and operation personnel.	Section 5.16.2.3, 5.16.2.3.3	Yes	
Appendix B (g) (11) (B)	A complete description of the fuel handling system and the fire suppression system.	Section 4.0	Yes	
Appendix B (g) (11) (C)	Provide draft outlines of the Construction Health and Safety Program and the Operation Health and Safety Program, as follows:			
	Construction Health and Safety Program: * Injury and Illness Prevention Plan (8 Cal. Code Regs., § 1509);	Section 5.16.2.3	Yes	
	* Fire Protection and Prevention Plan (8 Cal. Code Regs., § 1920);	Section 5.16.2.3	Yes	
	* Personal Protective Equipment Program (8 Cal. Code Regs., §§ 1514-1522)	Section 5.16.2.3	Yes	
	Operation Health and Safety Program: * Injury and Illness Prevention Program (8 Cal. Code Regs., § 3203);	Section 5.16.2.3	Yes	
	* Fire Prevention Plan (8 Cal. Code Regs., § 3221);	Section 5.16.2.3	Yes	
	* Emergency Action Plan (8 Cal. Code Regs., § 3220);	Section 5.16.2.3	Yes	
	Personal Protective Equipment Program (8 Cal. Code Regs., §§ 3401-3411).	Section 5.16.2.3	Yes	

California Energy Commission – Siting, Transmission, and Environmental Protection Division

Technical Area:Worker SafetyProject:Contra Costa Generating StationTechnical Staff:Rick TylerProject Manager:Joseph DouglasDocket:09-AFC-4Technical Senior:Rick Tyler

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (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 5.16-5	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.	Table 5.16-7	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 5.16-6	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.	Table 5.16-7	Yes	