

**DOCKETED**

<b>Docket Number:</b>	23-AFC-03
<b>Project Title:</b>	Black Rock Geothermal Project (BRGP)
<b>TN #:</b>	250071
<b>Document Title:</b>	Black Rock Geothermal Project (BRGP), Staff's Data Adequacy Recommendation
<b>Description:</b>	N/A
<b>Filer:</b>	Marichka Haws
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	5/8/2023 4:20:48 PM
<b>Docketed Date:</b>	5/8/2023

**State of California**

**California Natural Resources Agency**

**M e m o r a n d u m**

**To:** Chair David Hochschild  
Vice Chair Siva Gunda  
Commissioner Noemi Gallardo  
Commissioner J. Andrew McAllister, Ph.D.  
Commissioner Patty Monahan

**Date:** May 8, 2023

**From:** Drew Bohan, Executive Director  
California Energy Commission  
715 P Street  
Sacramento, California 95814-6400

**Subject: BLACK ROCK GEOTHERMAL PROJECT (BRGP), STAFF'S DATA  
ADEQUACY RECOMMENDATION (23-AFC-03)**

On April 18, 2023, Black Rock Geothermal, LLC, an indirect, wholly-owned subsidiary of BHE Renewables, LLC (BHER), filed an Application for Certification (AFC) to construct and operate a geothermal electrical generating facility, the Black Rock Geothermal Project (BRGP), in unincorporated Imperial County at the Salton Sea Known Geothermal Resource Area. The facility would provide electricity via a steam turbine generator (STG), utilizing a new 2.2 mile above-ground transmission line to deliver power to the Imperial Irrigation District switching station. BRGP would have a maximum continuous rating of roughly 87 megawatts (MW) gross, with an expected net output of roughly 77 MW.

The proposed BRGP would be on a 55-acre portion of a 160-acre parcel bounded by McKendry Road to the north, Severe Road to the west, and Boyle Road to the east. The town of Niland is approximately 8 miles to the northeast and the town of Calipatria is approximately 6 miles southeast of the plant site.

Main components of BRGP include a steam turbine generator system, geothermal fluid processing system, 1 seven-cell cooling tower, 12 wells (including production and injection wells) and 7 well pads. The project includes geothermal production wells, pipelines, fluid and steam handling facilities, a solids handling system, a Class II surface impoundment, a service water pond, a retention basin, process fluid injection pumps, and injection wells.

Staff completed its data adequacy review of the BRGP AFC and determined that it does not meet all the requirements in California Code of Regulations, title 20, section 1704, Appendix B, for the 12-month certification process. Of the 23 technical disciplines reviewed, staff concludes the information contained in the AFC is deficient in eight areas: Air Quality, Biological Resources, Cultural Resources, Noise and Vibration, Public

Health, Project Overview, Transmission Line Safety and Nuisance, and Waste Management.

Public Resources Code sections 25502 and 25519 require a two-step process for an applicant to receive certification from the CEC to construct and operate a thermal powerplant. The first step is to file a Notice of Intent (NOI) and the second step is to file an AFC. The NOI step may be bypassed if the applicant can reasonably demonstrate the proposed site is capable of providing geothermal resources in commercial quantities. (Public Resources Code section 25540.2(a)).

The project is in an area with demonstrated suitability and a history of successful geothermal electricity production. The project site is within a region designated as a Known Geothermal Resource Area (KGRA) by the United States Department of the Interior, Bureau of Land Management, and the United States Geological Service. The BRGP and project components, including transmission, pipelines, and wells are in areas of the county that support geothermal energy production.

As determined in 2003 as part of the certification of the Salton Sea Unit 6 project (Docket 02-AFC-02), the CEC found this geothermal resource area contained geothermal resources in commercial quantities. (Docket 23-AFC-03, TN 249911) To determine whether this finding was still valid, staff reviewed the original analysis, updated information, and project-specific studies filed with the project's docket. Staff consulted with the California Department of Conservation, Geologic Energy Management Division (CalGEM), which has expertise in geothermal fields. The studies evidence that the region's geothermal resources are underdeveloped compared to the field's potential generation and that the geothermal production wells have maintained pressure for decades with minimal loss.

Based on these facts, staff concludes it is reasonable to expect the proposed project would maintain its gross generating capacity for the project's life. Based on the entire record, staff also concludes that the applicant has reasonably demonstrated the site to be capable of providing geothermal resources in commercial quantities. Staff anticipates CalGEM will file a letter to the docket supporting the CEC's conclusion regarding the adequacy of the geothermal resources. Pursuant to Public Resources Code section 25540.2 (a), staff has determined that an NOI is not required and that the project can be processed under the 12-month certification process (Cal. Code Regs, tit. 20, section 1803 (b)).

Attached are a summary table and data adequacy worksheets for all technical disciplines. The worksheets for the areas listed above identify information that staff has determined is necessary to fulfill the AFC data adequacy requirements. At the May 31, 2023 CEC Business Meeting, staff will recommend that the CEC:

- 1) Find the site capable of producing geothermal resources in commercial quantities, and as such, the applicant does not need to file an NOI.

- 2) Adopt the list of deficiencies and not accept the AFC as complete until the additional information is supplied.
- 3) Appoint a committee to oversee the AFC proceeding and delegate the future determination of the application being complete to the committee.

For further information, please call Eric Veerkamp, project manager at (916) 661-8458.

Attachments (2):

- Attachment A: Summary of Staff's Data Adequacy Determination, with indication of the eight technical areas determined to be data inadequate.
- Attachment B: Staff's Data Adequacy Worksheets for the technical areas analyzed as part of the data adequacy determination.

ATTACHMENT A  
 Overview of Energy Commission Staff's Data Adequacy Determination  
 Black Rock Geothermal Project 23-AFC-03

<b>Technical Area</b>	<b>Attachment B Page Number</b>	<b>Adequate?</b>
AIR QUALITY .....	1	NO
ALTERNATIVES.....	8	YES
BIOLOGICAL RESOURCES.....	9	NO
CULTURAL RESOURCES.....	21	NO
EFFICIENCY .....	27	YES
FACILITY DESIGN.....	30	YES
GEOLOGICAL HAZARDS .....	36	YES
HAZARDOUS MATERIALS .....	39	YES
LAND USE .....	42	YES
NOISE AND VIBRATION .....	46	NO
PALEONTOLOGICAL RESOURCES .....	51	YES
PROJECT OVERVIEW .....	54	NO
PUBLIC HEALTH .....	61	NO
RELIABILITY .....	64	YES
SOCIOECONOMICS .....	69	YES
SOILS .....	74	YES
TRAFFIC AND TRANSPORTATION .....	78	YES
TRANS LINE SAFETY & NUISANCE .....	82	NO
TRANSMISSION SYSTEM DESIGN .....	84	YES
VISUAL RESOURCES .....	87	YES
WASTE MANAGEMENT .....	93	NO
WATER RESOURCES .....	97	YES
WORKER SAFETY.....	108	YES

## ATTACHMENT B

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Air Quality**

**DATA ADEQUACY WORKSHEET**

Revision No. 0 Date: 4/28/23

Project: Black Rock Geothermal Project Technical Staff: Tao Jiang, Wenjun Qian, Andres Perez

Project Manager: Eric Veerkamp

Docket: 23-AFC-03

Technical Senior: Joseph Hughes

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 Section 5.1 Appendix 5.1A	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.		No	Please provide a copy of the letter of completeness from the Imperial County Air Pollution Control District.
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 4.0 on page 4-1 Section 5.1.9.2.1 on pages 5-37 through 5-40, Table 5.1-22, 23 and 24 Appendix 5.1B	Yes	
Appendix B (g) (8) (C)	A description of the control technologies proposed to limit the emission of criteria pollutants.	Section 5.1.8 on pages 5.1-29 and 5.1-30	Yes	
Appendix B (g) (8) (D)	A description of the cooling system, the estimated cooling tower drift rate, the rate of water flow through the cooling tower, and the maximum concentrations of total dissolved solids.	Section 2.3.3.3.3 on page 2-18 Appendix 5.1A, Table 15	Yes	

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Appendix B (g) (8) (E)	The emission rates of criteria pollutants and greenhouse gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, and SF <sub>6</sub> ) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all on-site secondary emission sources.	Section 5.1 Appendix 5.1A	Yes	
Appendix B (g) (8) (F)(i)	A description of typical operational modes, and start-up and shutdown modes for the proposed project, including the estimated frequency of occurrence and duration of each mode, and estimated emission rate for each criteria pollutant during each mode.	Section 5.1.7.1.1 on pages 5.1-13 through 5.1-16 Section 5.1.7.1.2 on pages 5.1-17 through 5.1-25 Appendix 5.1A	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 5.1.7.1.1 on pages 5.1-13 through 5.1-16 Section 5.1.7.1.2 on pages 5.1-17 through 5.1-25	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 5.1.6, Table 5.1-4 on page 5.1-12	Yes	



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Appendix B (g) (8) (H)	One year of meteorological data collected from either the Federal Aviation Administration Class 1 station nearest to the project or from the project site, or meteorological data approved by the California Air Resources Board or the local air pollution control district.	Section 5.1.9.1.1 on page 5.1-31 shows that the applicant used 5 years of meteorological data from the CARB Hotspots Analysis and Reporting Program.	Yes	
Appendix B (g) (8) (H) (i)	If the data is collected from the project site, the applicant shall demonstrate compliance with the requirements of the U.S. Environmental Protection Agency document entitled "On-Site Meteorological Program Guidance for Regulatory Modeling Applications" (EPA - 450/4-87-013 (August 1995)), which is incorporated by reference in its entirety.	N/A. Section 5.1.9.1.1 on page 5.1-31 shows that the applicant used meteorological data from the CARB Hotspots Analysis and Reporting Program.	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.	Figure 5.1-3 (page number is not shown)	Yes	
Appendix B (g) (8) (I)	An evaluation of the project's direct and cumulative air quality impacts, consisting of:			

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Air Quality**

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Appendix B (g) (8) (I) (i)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant impacts of project construction activities on ambient air quality conditions, including fugitive dust (PM <sub>10</sub> ) emissions from grading, excavation and site disturbance, as well as the combustion emissions [nitrogen oxides (NO <sub>x</sub> ), sulfur dioxide (SO <sub>2</sub> ), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM <sub>10</sub> ) and particulate matter less than 2.5 microns in diameter (PM <sub>2.5</sub> ) from construction-related equipment;	Section 5.1.10.2 on pages 5.1-48 through 5.1-50	Yes	
Appendix B (g) (8) (I) (ii)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant (NO <sub>x</sub> , SO <sub>2</sub> , CO, PM <sub>10</sub> , and PM <sub>2.5</sub> ) 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 5.1.10.1 on pages 5.1-44 through 5.1-46, Appendix 5.1B	Yes	

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Appendix B (g) (8) (I) (iii)	A protocol for a cumulative air quality modeling impacts analysis of the project's typical operating mode in combination with other stationary emissions sources within a 6-mile radius that 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	Section 5.1.9.5 on page 5.1-42	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 <sub>x</sub> , SO <sub>2</sub> , CO, PM <sub>10</sub> , and PM <sub>2.5</sub> .	Section 5.1.10.1 on pages 5.1-44 through 5.1-46, Appendix 5.1B	Yes	
Appendix B (g) (8) (J)	If an emission offset strategy is proposed to mitigate the project's impacts under (g)(1), provide:	N/A	N/A	
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	N/A	N/A	
Appendix B (g) (8) (J) (ii)	Potential offset sources, including location, and quantity of emission reductions;	N/A	N/A	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Air Quality**

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Project Manager: Eric Veerkamp

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Appendix B (g) (8) (K)	A detailed description of the mitigation, if any, which an applicant may propose, for all projects impacts from criteria pollutants that currently exceed state or federal ambient air quality standards but are not subject to offset requirements under the district's new source review rule.	N/A	N/A	
Appendix B (i) (1) (A)	Tables that 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 5.1.11 on pages 5.1-51 through 5.1-62	Yes	
Appendix B (i) (1) (B)	Tables that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	Section 5.1.12 Table 5.1-35 on page 5.1-62	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Air Quality**

**DATA ADEQUACY WORKSHEET**

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Project Manager: Eric Veerkamp

Docket: 23-AFC-03

Technical Senior: Joseph Hughes

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Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and provide the name of the official who will serve as a contact person for Commission staff.	Section 5.1.12 Table 5.1-35 on page 5.1-62	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 5.1.13 on page 5.1-64	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Alternatives**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Jeanine Hinde  
 Technical Senior: Steve Kerr

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.	p. 2-5, section 2.3.1 Introduction; pp. 2-6 and -8, section 2.3.2.2 Project Site Selection; p. 2-8, section 2.3.2.2.2 Geothermal Resource Adequacy; p. 2-9, section 2.3.3.1.2 Site Location	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.	pp. 6-2, -3, and -4; sections 6.2 No Project Alternative, 6.3 Power Plant Site Alternatives, 6.4 Alternative Project Design Features, and 6.5 Technology Alternatives	Yes	
Appendix B (f) (2)	An evaluation of the comparative engineering, economic, and environmental merits of the alternatives discussed in (f)(1).	pp. 6-2, -3, and -4; sections 6.2 No Project Alternative, 6.3 Power Plant Site Alternatives, 6.4 Alternative Project Design Features, and 6.5 Technology Alternatives	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Biological Resources**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
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 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/23  
 Technical Staff: Tia Mia Taylor  
 Technical Senior: Jon Hilliard

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Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Site Conditions: Section 5.2.1, Figure 5.2-1, Figure 5.2-2, Figure 5.2-3, Impacts: Section 5.2.2, specifically Section 5.2.2.2 and Section 5.2.2.3 Mitigation and Monitoring: Section 5.2.3	No	From Section 5.2.1 on page 170 in the second paragraph, staff has identified some discrepancies that need addressing. There is a discrepancy as to what is defined as the "project", which thus has affected how surveys have been conducted and even how survey buffer zones have been applied. This would have a direct effect on impacts and mitigation possibly required as well as permits. Please explain why "construction laydown, construction camps, borrow pits, parking lots, and pull sites" are not considered as part of the project and surveyed in the same way as the power plant boundary, gen-tie line, etc. that are considered project components. Also, in the same paragraph on page 170, staff noticed survey buffer zones were greater than the project boundary to account for "flexible placement of Project features while avoiding sensitive areas." To assess impacts properly the location of the project boundary and components needs to be clearly defined. Please specify what project features may be relocated before construction starts. Sections 5.2.2.2 and 5.2.2.3 must discuss and evaluate the impacts of the project on the adjacent Sonny Bono Salton Sea National Wildlife Refuge and the Imperial Wildlife Area, along which the project boundary, gen-tie lines and construction laydown/parking areas would run adjacent.

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Biological Resources**  
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 Technical Senior: Jon Hilliard

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				<p>Surveys for Yuma Ridgway's rail (<i>Rallus obsoletus yumanensis</i>) and California black rail (<i>Laterallus jamaicensis coturniculus</i>) were said to be performed (page 170) because they are known to exist near the project (page 183) but page 188 contradicts this, saying the surveys were not done. Please provide and discuss survey results for these species. Since these are fully protected species and no take of these species are allowed full avoidance and mitigation measures must be demonstrated.</p> <p>Another fully protected species, the brown pelican, has a high potential to occur as a transient and is said to be more sensitive to noise than most species (page 192,193). No take may occur; more discussion on how full avoidance will be assured is needed and why mitigation is not necessary. Also, foraging habitat and nesting/roosting/burrowing habitat will be temporarily and permanently impacted for special status species like bats, birds, kit fox, etc. Please reconsider and evaluate the impacts to these species, including performing appropriate surveys, and whether mitigation may be appropriate.</p> <p>More specifics are needed on mitigation measures, especially 5.2.3.7, 5.2.3.10 and 5.2.3.11. The last two sections discuss mitigation for burrowing owl, while surveys for burrowing owl were only done on a "reconnaissance" level according to page 188. Surveys that follow</p>



Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Biological Resources**  
 Project Manager: **Eric Veerkamp**

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				CDFW standards need to be performed for burrowing owl.
Appendix B (g) (13) (A)	A regional overview and discussion of terrestrial and aquatic biological resources, with particular attention to sensitive biological resources within 10 miles of the project. Include a map at a scale of 1:100,000 (or other suitable scale) showing sensitive biological resource location(s) in relation to the project site and related facilities and any boundaries of a local Habitat Conservation Plan or similar open space land use plan or designation. Sensitive biological resources include:	Section 5.2.1.1, 5.2.1.2 - 5.2.1.5, Appendix 5.2B	Yes	
Appendix B (g) (13) (A) (i)	species listed under state or federal Endangered Species Acts;	Appendix 5.2 A	Yes	
Appendix B (g) (13) (A) (ii)	resources defined in the California Code of Regulations, title 20, sections 1201(d) and (u);	N/A	N/A	
Appendix B (g) (13) (A) (iii)	species identified as state Fully Protected;	Appendix 5.2 A	Yes	
Appendix B (g) (13) (A) (iv)	species covered by Migratory Bird Treaty Act;	Appendix 5.2 A	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	Appendix 5.2A, Section 5.2.1.5.2 and 5.2.1.5.3	No	Species such as Yuma Ridgway's rail, burrowing owl and desert kit fox must be evaluated for impacts fully, along with a discussion of avoidance, minimization, and mitigation measures. See above (g)(1).
Appendix B (g) (13) (A) (vi)	fish and wildlife species that have commercial or recreational value.	N/A	N/A	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X** **DATA ADEQUACY WORKSHEET** Revision No. 0 Date: 4/28/23  
 Technical Area: **Biological Resources** Project: Black Rock Geothermal Project Technical Staff: Tia Mia Taylor  
 Project Manager: Eric Veerkamp Docket: 23-AFC-03 Technical Senior: Jon Hilliard

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Appendix B (g) (13) (B)	Include a list of the species 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:	Appendix 5.2 B, Figure 1A, and Figure 1B	No	As mentioned in (g)(1), staff is concerned with how the definition of the "project" is being applied and how this is affecting the surveys. 1000 feet to all project components, including the construction laydown, parking, burrowing pits, etc., should be applied as a buffer zone uniformly and included in the BSA (Biological Study Area). This would directly affect the outcome of the species observed and with a potential to occur.
Appendix B (g) (13) (B) (i)	Detailed maps at a scale of 1:6,000 or color aerial photographs taken at a recommended scale of 1 inch equals 500 feet (1:6,000) with a 30 percent overlap that show the proposed project site and related facilities, biological resources including, but not limited to, those found during project-related field surveys and in records from the California Natural Diversity Database, and the associated areas where biological surveys were conducted. Label the biological resources and survey areas as well as the project facilities;	Appendix 5.2 B, Figure 1A, Figure 1B, Figure 2A, and Figure 2B TN 249880 (This met the requirement)	Yes	
Appendix B (g) (13) (B) (ii)	A depiction of the extent of the thermal plume at the surface of the water if cooling water is proposed to be discharged to a water source. Provide the location for the intake and discharge structures on an aerial photograph(s) or detailed maps. Water sources include, but are not limited to, waterways, lakes, impoundments, oceans, bays, rivers, and estuaries; and	N/A	N/A	

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Appendix B (g) (13) (B) (iii)	An aerial photo or wetlands delineation maps at a scale of (1:2,400) showing any potential jurisdictional and non-jurisdictional wetlands delineated out to 250 feet from the edge of disturbance if wetlands occur within 250 feet of the project site and/or related facilities that would be included with the U.S. 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.	Figure 5.2-3 Appendix 5.2 C, Figure 1, and Photos 1-4 on pages C-1 and C-2	No	Appendix 5.2-3 by itself does not meet the requirements. An overlay location of Photos 1-4 would improve the map. Although Figure 1 shows points where Photos 1-4 were taken it does not show where the wetlands are with respect to the project site. Also, Photos 1-4 do not meet the aerial requirement. Aerial photos will show more area much more accurately than ground photos. In addition, please make sure that the map/aerial photos represent all potential wetlands from the edge of potential disturbance within 250 feet of project site and related facilities. The buffer zone on the map should be clearly indicated.
Appendix B (g) (13) (C)	A discussion of the biological resources at the proposed project site and related facilities. Related facilities include, but are not limited to, laydown and parking areas, gas and water supply pipelines, transmission lines, and roads. The discussion shall address the distribution of vegetation community types, denning or nesting sites, population concentrations, migration corridors, breeding habitats, and other appropriate biological resources including the following:	Section 5.2.1	No	Please reference (g)(1).
Appendix B (g) (13) (C) (i)	A list of all the species observed;	Appendix 5.2A, Section 5.2.1.5.3 and 5.2.1.6.2, Table 5.2-2, Specifically pg 5.2-19	Yes	
Appendix B (g) (13) (C) (ii)	A list of sensitive species and habitats with a potential to occur (defined in (A) above); and	Species: Appendix 5.2A, Section 5.2.1.5.2 and 5.2.1.5.3; Specifically Table	Yes	

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		5.2A-1, Table 5.2A-2 and Table 5.2-2 Habitats: Section 5.2.1.1 and 5.2.1.6.2, Table 5.2-4, Table 5.2-5 and Figure 5.2-4		
Appendix B (g) (13) (C) (iii)	If cooling water is taken directly from or discharged to a surface water feature source, include a description of the intake structure, screens, water volume, intake velocity hydraulic zone field of influence, and the thermal plume dispersion area as depicted in response to B(ii) above. Describe the thermal plume size and dispersion under high and low tides, and in response to local currents and seasonal changes. Provide a discussion of the aquatic habitats, biological resources, and critical life stages found in these affected waters. For repower projects that anticipate no change in cooling water flow, this information shall be provided in the form of the most recent federal Clean Water Act 316(a) and (b) studies of entrainment and impingement impacts that has been completed within the last 5 years. For new projects or repower projects proposing to use once-through cooling and anticipating an increase in cooling water flow, provide a complete impingement and entrainment analysis per guidance in (D)(ii), below.	N/A	N/A	
Appendix B (g) (13) (D)	A description and results of all field studies and seasonal surveys used to provide biological baseline information about the project site and	Section and 5.2.1.6.1 5.2.1.6.2	No	More detail is needed to describe the method of plant and animal species surveys conducted as

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	associated facilities. Include copies of the California Natural Diversity Database records and field survey forms completed by the applicant's biologist(s). Identify the date(s) the surveys were completed, methods used to complete the surveys, and the name(s) and qualifications of the biologists conducting the surveys. Include:			well as names/qualifications of biologists, field survey forms and CNDDDB records.
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;	Section and 5.2.1.6.1 5.2.1.6.2	No	Rail surveys were decided not to be done, including surveys for burrowing owl because they were "presumed present". There was no evidence of consulting with the CDFW or USFWS to see what species both agencies would recommend conducting a survey for. Staff believes protocol level surveys should be conducted for certain species such as the above, with the addition of kit fox.
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 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	N/A	N/A	

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	in the form of the most recent federal Clean Water Act 316(b) impingement and entrainment impact study completed within 5 years of the AFC filing date; and			
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 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.	Section 5.2.2.2.7 Figure 5.2-3, Appendix 5.2 C, Figure 1, and Photos 1-4 on pages C-1 and C-2 Wetland Determination Data Form Appendix 5.2 C pages 19-26	No	Besides issues raised previously about what is considered the "project" and what must be surveyed appropriately, staff found other discrepancies. Section 5.2.2.2.7 says that wetlands will not be affected, then contradicts that statement in the next sentence saying "if" gen-tie lines have impacts then a Section 404 permit would be required. Also, Figure 5.2-3 seems to show the project boundary and project related facilities intersecting with potential wetland features. This highlights again the importance of being clear on what is considered the "project" since laydown construction/parking area looks to overlap a wetland feature. In addition, wetland delineation forms were provided, but no details specified were mentioned or any discussion provided.
Appendix B (g) (13) (E)	Impacts discussion of:	Section 5.2.2.2 and 5.2.2.3	Yes	
Appendix B (g) (13) (E) (i)	all impacts (direct, indirect, and cumulative) to biological resources from project site preparation, construction activities, plant operation, maintenance, and closure. Discussion shall also address sensitive species habitat impacts from cooling tower drift and air emissions;		No	Please reference (g)(1).

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Appendix B (g) (13) (E) (ii)	facilities that propose to take water directly from, and/or discharge water to surface water features, daytime and nighttime impacts from the intake and discharge of water during operation, water velocity at the intake screen, the intake field of influence, impingement, entrainment, and thermal discharge. Provide a discussion of the extent of the thermal plume, effluent chemicals, oxygen saturation, intake pump operations, and the volume and rate of cooling water flow at the intake and discharge location; and	N/A	N/A	
Appendix B (g) (13) (E) (iii)	Methods to control biofouling and chemical concentrations, and temperatures that are currently being discharged or will be discharged to receiving waters.	N/A	N/A	
Appendix B (g) (13) (F)	A discussion of all feasible mitigation measures including, but not limited to the following:	Section 5.2.3	Yes	
Appendix B (g) (13) (F) (i)	All measures proposed to avoid and/or reduce adverse impacts to biological resources;	Section 5.2.3.4, Section 5.2.3.6 through Section 5.2.3.13	No	These sections are lacking enough detail to determine whether mitigation is adequate. Details to include would be specifics of timing/methods/monitoring on nesting surveys (timing, buffer zones, monitoring, etc.), and other specific required surveys with protocols like the burrowing owl and rail surveys. Without these details, staff cannot determine if avoidance and mitigation will be sufficient. Certain required surveys are missing from discussion along with possible needed mitigation for impacts to species and habitat. Please Reference (g)(1).

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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 5.2.3.10 and Section 5.2.3.11	No	These sections are lacking enough detail to determine whether mitigation is adequate. Also, no mention of where mitigation lands might be, the entity who would oversee upkeep, and so forth, is discussed. Please provide a detailed discussion and also the contact information specific to compensation habitat and management.
Appendix B (g) (13) (F) (iii)	Design features to better disperse or eliminate a thermal discharge;	Section 2	Yes	
Appendix B (g) (13) (F) (iv)	All measures proposed to avoid or minimize adverse impacts of cooling water intake. This shall include a Best Technology Available (BTA) discussion. If BTA is not being proposed, the rationale for not selecting BTA must be provided; and	N/A	N/A	
Appendix B (g) (13) (F) (v)	Educational programs to enhance employee awareness during construction and operation to protect biological resources.	Section 5.2.3.4	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.	Sections 5.2.3.2, 5.2.3.3, 5.2.3.5, 5.2.3.8, and 5.2.3.9	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		No	There was no official correspondence submitted or discussed. It was not specified whether the project applicant has reached out to any of these agencies. Reaching out to agency officials is essential due to protected wildlife areas, possible wetland features and potential special status species occurring adjacent to the project. Please submit copies of preliminary discussions with



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	Department of Fish and Game, and the Regional Water Quality Control Board will be required for the proposed project.			these agencies to show early coordination is in progress.
Appendix B (i) (1) (A)	Tables that 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 5.2-7	Yes	
Appendix B (i) (1) (B)	Tables that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	Table 5.2-7	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 provide the name of the official who will serve as a contact person for Commission staff.	Section 5.2.5	No	It was not specified whether these agency officials have been contacted by the project applicant. The project applicant needs to reach out and contact these agencies and officials to also verify that they are providing the CEC with the correct official in charge of the region where the project is located.
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained	Section 5.2.6	No	This section asserts that the project will not require any permits. However, Table 5.2-7

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	and the steps the applicant has taken or plans to take to obtain such permits.			repeatedly states impacts are “not anticipate(d)” or are not “expected”, which indicates a lesser degree of confidence in these statements. Also, what is defined as the BSA and surveyed will make a difference in possible permits required. Please provide clarification on this as well as a schedule for potentially required permits.

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Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	<u>Existing site conditions</u> : Section 5.3.1, pp. 5.3-1 to 5.3-13 <u>Impacts</u> : Section 5.3, pp. 5.3-35 to 5.3-37 <u>Mitigation measures and effectiveness</u> : Section 5.3.4, p. 5.3-37; Appendix 5.3A (all topics referenced)	Yes	
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.	Section 5.3.1, pp. 5.3-1 to 5.3-13; Appendix 5.3A, pp. 18–35	Yes	
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 less than one-quarter (0.25) mile on each side of the linear facilities. Identify any cultural resources listed pursuant to ordinance by a city or county or recognized by any local historical or archaeological society or museum. Literature searches to identify the above cultural resources must be completed by, or under the direction of, individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.  Copies of California Department of Parks and Recreation (DPR) 523 forms (Title 14 CCR section 4853) shall be provided for all cultural	<u>Literature search area</u> : Section 5.3.2.3.1, p. 5.3-16, Figures 5.3-1a–e; Appendix 5.3A, p. 5.3-16, Figures 1-2–1-6 <u>Cultural resources listed at local level</u> : Appendix 5.3A, p. 39–40, Table 4-2 <u>Qualifications of researchers</u> : Appendix 5.3A-A  <u>Copies of DPR 523 forms</u> : Section 5.3.2.3.1, Table 5.3-2; Confidential	Yes   Yes  Yes   No	        Provide a copy of P-13-003258 (see Section 5.3.2.3.1, Table 5.3-2)

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	resources (ethnographic, architectural, historical, and archaeological) identified in the literature search as being 45 years or older or of exceptional importance as defined in the National Register Bulletin Guidelines, (36CFR60.4(g)). A copy of the USGS 7.5' quadrangle map of the literature search area delineating the areas of all past surveys and noting the California Historical Resources Information System (CHRIS) identifying number shall be provided. Copies also shall be provided of all technical reports whose survey coverage is wholly or partly within .25 mile of the area surveyed for the project under section (g)(2)(C), or which report on any archaeological excavations or architectural surveys within the literature search area.	<p>appendices 5.3A-B, 5.3A-E-1, 5.3A-E-2</p> <p><u>USGS quadrangle showing literature search area and previous studies:</u> Appendix 5.3A-B</p> <p><u>Copies of all reports in or within 0.25 mi of project:</u> Appendix 5.3A-F</p>	<p>Yes</p> <p>No</p>	Provide a copy of appendices B–C in IM-01385
Appendix B (g) (2) (C)	<p>The results of new surveys or surveys less than 5 years old shall be provided if survey records of the area potentially affected by the project are more than 5 years old. Surveys to identify new cultural resources must be completed by (or under the direction of) individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.</p> <p>New pedestrian archaeological surveys shall be conducted inclusive of the project site and project linear facility routes, extending to no less than 200' around the project site, substations and staging areas, and to no less than 50' to either side of the right-of-way of project linear facility routes. New historic architecture field surveys in rural areas shall be</p>	<p><u>New surveys conducted:</u> Appendix 5.3A, sections 6.2–6.3, pp. 46–65</p> <p><u>Surveyors meet professional criteria:</u> Appendix 5.3A, sections 6.2–6.3, pp. 46, 47, and Appendix 5.3A-A</p> <p><u>New archaeological survey parameters:</u> Appendix 5.3A, p. i, Section 6.2, Figure 6-5; confidential appendices 5.3A-B, 5.3A-D</p> <p><u>New architectural survey parameters:</u> Appendix 5.3A-D</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	

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	<p>conducted inclusive of the project site and the project linear facility routes, extending no less than .5 mile out from the proposed plant site and from the routes of all above-ground linear facilities. New historic architecture field surveys in urban and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory, and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.</p> <p>A technical report of the results of the new surveys, conforming to the Archaeological Resource Management Report format (CA Office of Historic Preservation Feb 1990), which is incorporated by reference in its entirety, shall be separately provided and submitted (under confidential cover if archaeological site locations are included).</p>	<p>Appendices 5.3A, A-A, A-B, A-C, A-D, A-E, A-F</p>	<p>No</p>	<p>Describe the disposition of field notes and photographs per ARM, p. 6; describe the depth and type of excavation required for each type of project component, per ARM, p. 7; provide a schedule for project construction and implementation, per ARM, p. 7; research design needs to address potential to encounter Native American archaeological resources (including buried archaeological resources) and tribal cultural resources, as the proposed project is adjacent to such, per ARM, pp. 9–10; provide a bibliographic entry for Cleland and Apple (2003)</p>
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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 California Code of Regulations, title 20, section 2501 et seq. At a minimum, the technical report shall include:	Section 5.3	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);	Appendix 5.3A, Section 3, pp. 18–35	Yes	
Appendix B (g) (2) (C) (ii)	The survey procedures and methodology used to identify cultural resources and a discussion of the resources identified by the survey;	Appendix 5.3A, sections 4–6, pp. 36–65	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 523 detail form for each such resource;	Confidential Appendix 5.3A-E	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	Confidential appendices 5.3A-B and 5.3A-D	No	Confidential Appendix 5.3A-D (results of survey) depicts the locations of newly identified cultural resources but does not map them at a scale of 1:24,000 on a USGS quadrangle; provide one or more maps of newly identified resources at the required scale and on specified base map.
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.	Appendix 5.3A, sections 6.2–6.3, pp. 46, 47 Appendix 5.3A-A	Yes	

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Appendix B (g) (2) (D)	Provide a copy of your request to the Native American Heritage Commission (NAHC) for information on Native American sacred sites and lists of Native Americans interested in the project vicinity, and copies of any correspondence received from the NAHC. Notify the Native Americans on the NAHC list about the project, including a project description and map. Provide a copy of all correspondence sent to Native American individuals and groups listed by the NAHC and copies of all responses. Provide a written summary of any oral responses.	Section 5.3.2.3.4, pp. 5.3-34, 5.3-35 Appendix 5.3A, Section 4.5, pp. 40–42 Appendix 5.3A-C	Yes	
Appendix B (g) (2) (E)	Include in the discussion of proposed mitigation measures required by (g)(1):			
Appendix B (g) (2) (E) (i)	A discussion of measures proposed to mitigate project impacts to known cultural resources;	Section 5.3.4, p. 5.3-37 Appendix 5.3A, Section 7.3, pp. 67–69	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	Section 5.3.4, p. 5.3-37 Appendix 5.3A, Section 7.3, pp. 67–69	Yes	
Appendix B (g) (2) (E) (iii)	Educational programs to enhance employee awareness during construction and operation to protect cultural resources.	Section 5.3.4, p. 5.3-37 Appendix 5.3A, Section 7.3, p. 68	Yes	

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 Technical Area: **Cultural Resources** Project: Black Rock Geothermal Project Technical Staff: Gabriel Roark  
 Project Manager: Eric Veerkamp Docket: 23-AFC-03 Technical Senior: Gabriel Roark

Appendix B (i) (1) (A)	Tables that 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 5.3.5, pp. 5.3-37–5.3-41, Table 5.3-5; Appendix 5.3A, Section 7.3, pp. 67–69	No	CEQA Guidelines are discussed in section 5.3.5.1, not in section 5.3.2.1, as identified in Table 5.3-5.  Calif. HSC Sect. 7050.5 is not discussed in the application and not in the section identified in Table 5.3-5.  Calif. PRC Sect. 5097.98 is not discussed in the application and not in the section identified in Table 5.3-5.
Appendix B (i) (1) (B)	Tables that 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 5.3.6, p. 5.3-41, Table 5.3-6	No	Provide local agency information (County of Imperial, Department of Planning and Development Services)
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 provide the name of the official who will serve as a contact person for Commission staff.	Section 5.3.6, p. 5.3-41, Table 5.3-6	No	Provide local agency information (County of Imperial, Department of Planning and Development Services)
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 5.3.7, p. 5.3-41	Yes	



Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Efficiency and Energy Resources**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Ardalan Raisi Sofi  
 Technical Senior: Shahab Khoshmashrab

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.	Chapter 2: Project Description Section 2.3: Facility Description and Location Section 2.3.2.2: Project Site Selection Section 2.3.3: Facility Description Section 2.3.4: Construction Section 2.3.5: Facilities, Operations and Maintenance	Yes	
Appendix B (h) (4) (A)	Heat and mass balance diagrams for design conditions for each mode of operation.	Appendix 2C: Heat and Mass Balance Diagram	Yes	
Appendix B (h) (4) (B)	Annual fuel consumption in BTUs for each mode of operation, including hot restarts and cold starts.	Chapter 2: Project Description Section 2.3: Facility Description and Location Section 2.3.1: Introduction	Yes	
Appendix B (h) (4) (C)	Annual net electrical energy produced in MWh for each mode of operation including starts and shutdowns.	Chapter 2: Project Description Section 2.3: Facility Description and Location Section 2.3.1: Introduction Chapter 4: Demand Conformance	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Efficiency and Energy Resources**  
 Project Manager: **Eric Veerkamp**

**DATA ADEQUACY WORKSHEET**

Project: **Black Rock Geothermal Project**  
 Docket: **23-AFC-03**

Revision No. **0** Date: **4/28/2023**  
 Technical Staff: **Ardalan Raisi Sofi**  
 Technical Senior: **Shahab Khoshmashrab**

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (4) (D)	Number of hours the plant will be operated in each design condition in each year.	Section 2.4.2.5: Power Plant Performance and Efficiency Chapter 4: Demand Conformance	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.	Section 6.5.1: Generation Technology Alternatives	Yes	
Appendix B (i) (1) (A)	Tables that 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	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Efficiency and Energy Resources**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Ardalan Raisi Sofi  
 Technical Senior: Shahab Khoshmashrab

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 that 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 provide the name of the official who will serve as a contact person for Commission staff.	N/A	N/A	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	N/A	N/A	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Facility Design**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 04/28/2023  
 Technical Staff: Kenneth Salyphone  
 Technical Senior: Shahab Khoshmashrab

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
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.	Chapter 2: Project Description Section 2.3: Facility Description and Location Section 2.3.2.2: Project Site Selection Section 2.3.3: Facility Description Section 2.3.3.2: Site Location Section 2.3.3.3: Site Layout Section 2.3.3.4: Resource Production Facility Section 2.3.3.4.1: Production Wells and Pipelines Section 2.3.3.6.17: Perimeter Berm/Flood Protection Section 2.3.3.6.18: Site Grading and Drainage Appendix 2B: Engineering Design Criteria	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Facility Design**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 04/28/2023  
 Technical Staff: Kenneth Salyphone  
 Technical Senior: Shahab Khoshmashrab

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) (B)	A discussion of any measures proposed to improve adverse site conditions.	Section 2.3.2.2: Project Site Selection Section 2.3.3: Facility Description Section 2.3.3.6.16: Roads Section 2.3.3.6.17: Perimeter Berm/Flood Protection Section 2.3.3.6.18: Site Grading and Drainage Section 2.3.4.4.3: Construction Activities	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.	Section 2.3.3.4: Resource Production Facility Section 2.3.3.4.1: Production Wells and Pipelines Section 2.3.3.6.14: Skids Section 2.3.3.6.16: Roads Appendix 2B: Engineering Design Criteria	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Facility Design**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 04/28/2023  
 Technical Staff: Kenneth Salyphone  
 Technical Senior: Shahab Khoshmashrab

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)	For each of the following facilities 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:	Figure 2-1: General Arrangement Figure 2-2: Process Flow Diagram Figure 2-4a to Figure 2-4c Elevation View Figure 2-5: Peak Water Balance Diagram Figure 2-6a and 2.6b: Pre and Post Construction Diagram	Yes	
Appendix B (h) (1) (D) (i)	The power generation system;	Section 2.3.3.5: Power Generation Facility	Yes	
Appendix B (h) (1) (D) (ii)	The heat dissipation system;	Section 2.3.3.5.2: Heat Rejection System	Yes	
Appendix B (h) (1) (D) (iii)	The cooling water supply system, and, where applicable, pre-plant treatment procedures;	Section 2.3.3.5.3: Cooling Tower Section 2.3.3.6.2: Water Supply and Treatment	Yes	
Appendix B (h) (1) (D) (iv)	The atmospheric emission control system;	Section 2.3.3.6.8: Emissions Control Equipment	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Facility Design**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 04/28/2023  
 Technical Staff: Kenneth Salyphone  
 Technical Senior: Shahab Khoshmashrab

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
Appendix B (h) (1) (D) (v)	The waste disposal system and on-site disposal sites;	Section 2.3.3.6.4: Nonhazardous Waste Management Section 2.3.3.6.5: Solid Waste Construction Section 2.3.3.6.6: Hazardous Waste Management Section 2.3.3.6.7: Hazardous Materials Management  Table 2-7: Wastes Generated during Construction Table 2-8: Wastes Generated during Operations	Yes	
Appendix B (h) (1) (D) (vi)	The noise emission abatement system;	Section 5.7: Noise Appendix 5.7A	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Facility Design**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 04/28/2023  
 Technical Staff: Kenneth Salyphone  
 Technical Senior: Shahab Khoshmashrab

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
Appendix B (h) (1) (D) (vii)	The geothermal resource conveyance and re-injection lines (if applicable);	Section 2.3.3.4: Resource Production Facility Section 2.3.3.4.1: Production Wells and Pipelines Section 2.3.3.4.2: Fluid/Steam Handling System Section 2.3.3.4.4: Fluid Injection System Section 2.3.3.6.3: Fluid Process-Streams	Yes	
Appendix B (h) (1) (D) (viii)	Switchyards/transformer systems; and	2.3.3.6: Facility Support Systems Section 2.3.3.6.1: Major Electrical Equipment 2.3.4.4: Interconnection Gen-Tie Line Chapter 3: Electrical Transmission	Yes	
Appendix B (h) (1) (D) (ix)	Other significant facilities, structures, or system components proposed by the applicant.	Section 2.3.3.6.9: Plant Auxiliaries Section 2.3.3.6.12: Facility Civil/Structural Features Section 2.3.3.6.13: Resource Production Facility	Yes	



Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Facility Design**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 04/28/2023  
 Technical Staff: Kenneth Salyphone  
 Technical Senior: Shahab Khoshmashrab

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
Appendix B (i) (1) (A)	Tables that identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 2.5 Appendix 2B LORS for engineering design criteria	Yes	
Appendix B (i) (1) (B)	Tables that 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		
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 provide the name of the official who will serve as a contact person for Commission staff.	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		

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Geological Hazards**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Mike Turner, PG, GEC  
 Technical Senior: Karim Abulaban, PE

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.	Subsection 5.4.3 Cumulative Effects pp. 5.4-9 through 5.4-10; Subsection 5.4.4 Mitigation Measures pp. 5.4-10; Appendix 5.4-A, Prelim Geotech. Rpt., Section 3.1 Site Conditions pp. 8	Yes	
Appendix B (g) (17) (A)	A summary of the geology, seismicity, and geologic resources of the project site and related facilities, including linear facilities.	Subsection 2.4.3.1.1 Seismic pp. 2-56; Subsection 5.4.1.1 Local Setting and Regional Geology pp. 5.4-1 through 5.4-7; Subsection 5.4.1.4 Seismic Setting pp. 5.4-6; Subsection 5.4.1.5 Potential Geologic Hazards pp. 5.4-6 through 5.4-8	Yes	
Appendix B (g) (17) (B)	A map at a scale of 1:24,000 and description of all recognized stratigraphic units, geologic structures, and geomorphic features within two (2) miles of the project site and along proposed facilities. Include an analysis of the likelihood of ground rupture, seismic shaking, mass wasting and slope stability, liquefaction, subsidence, tsunami runup, and expansion or collapse of soil structures at the plant site. Describe known geologic hazards along or crossing linear facilities.	Subsection 5.4.1.1.1 Faulting and Seismicity pp. 5.4-2 through 5.4-5; Subsection 5.4.1.2 Local Geology and Stratigraphy pp. 5.4-5; Subsection 5.4.1.5 Potential Geologic Hazards pp. 5.4-6 through 5.4-8	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Geological Hazards**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Mike Turner, PG, GEC  
 Technical Senior: Karim Abulaban, PE

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
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.	Subsection 5.4.1.6 Geologic Resources of Recreational, Commercial, of Scientific Value pp. 5.4-8	Yes	
Appendix B (i) (1) (A)	Tables that 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	Subsection 5.4.5 Laws, Ordinances, Regulations, and Standards pp. 5.4-10 through 5.4-12; Subsection 5.4.5 Laws, Ordinances, Regulations, and Standards, Table 5.4-1 LORS for Geological Hazards and Resources pp. 5.4-10 through 5.4-11; Subsection 5.4.6 State Laws, Ordinances, Regulations, and Standards pp. 5.4-11; Subsection 5.4.7 Local Laws, Ordinances, Regulations, and Standards pp. 5.4-12	Yes	
Appendix B (i) (1) (B)	Tables that 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.	Subsection 5.4.5 Laws, Ordinances, Regulations, and Standards, Table 5.4-1 LORS for Geological Hazards and Resources pp. 5.4-10 through 5.4-11	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Geological Hazards**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Mike Turner, PG, GEC  
 Technical Senior: Karim Abulaban, PE

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 provide the name of the official who will serve as a contact person for Commission staff.	Subsection 5.4.8 Agencies and Agency Contacts, Table 5.4-2 Agency Contacts for Geological Hazard Resources pp. 5.4-12	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.	Subsection 5.4.9 Permits and Permit Schedule pp. 5.4-12	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Hazardous Materials**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 04/28/23  
 Technical Staff: Brett Fooks  
 Technical Senior: Brett Fooks

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Pages 2-48 – 2-49, Sections 2.3.6.1 & 2.3.6.2	Yes	
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Pages 5.5-1 – 5.5-2, Section 5.5.1; Page 5.5-12, Section 5.5.3; Pages 5.5-12 – 5.5-15, Section 5.5.4	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 California Code of Regulations, title 22, section 66261.20 et seq., and a discussion of the toxicity of each material.	Pages 5.5-3 – 5.5-7, Table 5.5-1 & 5.5-2; Pages 5.5-8 – 5.5-10; Table 5.5-3	Yes	
Appendix B (g) (10) (B)	A map at a scale of 1:24,000 depicting the location of schools, hospitals, daycare facilities, emergency response facilities and long-term health care facilities, within the area potentially affected by any release of hazardous materials.	Page 5.9-17, Figure 5.9-2	Yes	
Appendix B (g) (10) (C)	A discussion of the storage and handling system for each hazardous material used or stored at the site.	Page 5.5-11, Section 5.5.2.3	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Hazardous Materials**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 04/28/23  
 Technical Staff: Brett Fooks  
 Technical Senior: Brett Fooks

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
Appendix B (g) (10) (D)	The protocol that will be used in modeling potential consequences of accidental releases that could result in offsite 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.	Page 5.5-11, Section 5.5.2.4	Yes	
Appendix B (g) (10) (E)	A discussion of whether a risk management plan (Health and Safety Code section 25531 et seq.) will be required, and if so, the requirements that will likely be incorporated into the plan.	Page 5.5-11, Section 5.5.2.4.1	Yes	
Appendix B (g) (10) (F)	A discussion of measures proposed to reduce the risk of any release of hazardous materials.	Pages 5.5-12 – 5.5-15, Section 5.5.4	Yes	
Appendix B (g) (10) (G)	A discussion of the fire and explosion risks associated with the project.	Page 5.5-11 – 5.5-12, Section 5.5.2.5	Yes	
Appendix B (i) (1) (A)	Tables that identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Pages 5.5-15 – 5.5-16, Table 5.5.4	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Hazardous Materials**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 04/28/23  
 Technical Staff: Brett Fooks  
 Technical Senior: Brett Fooks

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
Appendix B (i) (1) (B)	Tables that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	Page 5.5-20, Table 5.5-5	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and provide the name of the official who will serve as a contact person for Commission staff.	Page 5.5-20, 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.	Page 5.5-21, Table 5.5-6	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Land Use**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Andrea Koch  
 Technical Senior: Steve Kerr

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
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. 5.6-1 to 5.6-3, Section 5.6.1.2; Pp. 5.6-10 to 5.6-16, Sections 5.6.2 to 5.6.4	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:	Pp. 5.6-1 to 5.6-3, Section 5.6.1.2; Pp. 5.6-4 to 5.6-9, Section 5.6.1.5; Pp. 5.6-18 to 5.6-19, Section 5.6.5.3.2	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;	Pp. 5.6-4 to 5.6-9, Section 5.6.1.5	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;	NA	Yes	



Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Land Use**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Andrea Koch  
 Technical Senior: Steve Kerr

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
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	NA	Yes	
Appendix B (g) (3) (A) (iv)	Legible maps of the areas identified in subsection (g)(3)(A) potentially affected by the project, on which existing land uses, jurisdictional boundaries, general plan designations, specific plan designations, and zoning have been clearly delineated.	Pp. 5.6-18 to 5.6-19, Section 5.6.5.3.2; Figures 5.6-1 and 5.6-2 (no page numbers)	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.	Pp. 5.6-10 to 5.6-15, Section 5.6.2.2 (including Table 5.6-3)	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Land Use**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (3) (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.	P. 2-9, Section 2.3.3.1.2; P. 5.1-4, Section 5.1.3.1; Appendix 2A	Yes	
Appendix B (g) (3) (D)	A map at a scale of 1:24,000 and written description of agricultural land uses found within all areas affected by the proposed project. The description shall include:	Figure 5.11-2 (no page number); P. 5.2-17, Section 5.2.1.6.2	Yes	
Appendix B (g) (3) (D) (i)	Crop types, irrigation systems, and any special cultivation practices;	P. 5.2-17, Section 5.2.1.6.2; Pp. 5.11-1 to 5.11-2, Section 5.11.1.1; P. 5.11-9, Section 5.11.1.4	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	Pp. 5.11-10 to 5.11-11, Section 5.11.1.4.1 (including Table 5.11-2); Figure 5.11-2 (no page number)	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.	Pp. 5.11-10 to 5.11-11, Section 5.11.1.4.1 (including Table 5.11-2); Pp. 5.11-20 to 5.11-22, Sections 5.11.2.3 to 5.11.3; P. 5.11-24, Section 5.11.4.11	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Land Use**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables that identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Pp. 5.6-10 to 5.6-15, Section 5.6.2.2 (including Table 5.6-3); Pp. 5.6-16 to 5.6-19, Section 5.6.5	Yes	
Appendix B (i) (1) (B)	Tables that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	P. 5.6-20, Section 5.6.6	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 provide the name of the official who will serve as a contact person for Commission staff.	P. 5.6-20, Section 5.6.6	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.	P. 5.6-20, Section 5.6.7	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Noise and Vibration**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 04/28/2023  
 Technical Staff: Kenneth Salyphone  
 Technical Senior: Shahab Khoshmashrab

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 5.7.2.1: Local Land Use and Noise Sources Section 5.7.2.2: Ambient Noise Survey Section 5.7.3.2: Construction Impacts Section 5.7.3.2.1: Project Construction Noise Section 5.7.3.3 Operational Noise Section 5.7.3.3.3: Project Operational Noise Modeling Section 5.7.4: Cumulative Effects Section 5.7.5: Mitigation Measures Section 5.7.5.1: Noise Hot Line Section 5.7.5.2: Noise Complaint Resolution	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: Sound Monitoring Locations	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X** **DATA ADEQUACY WORKSHEET** Revision No. 0 Date: 04/28/2023  
 Technical Area: **Noise and Vibration** Project: Black Rock Geothermal Project Technical Staff: Kenneth Salyphone  
 Project Manager: Eric Veerkamp Docket: 23-AFC-03 Technical Senior: Shahab Khoshmashrab

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 (daynight 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).	Section 5.7.2.2: Ambient Noise Survey Table 5.7-3: Summary of Noise Survey Locations Table 5.7-4: Summary of Measured Sound Levels Appendix 5.7A: Summary of Sound Monitoring Data	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Noise and Vibration**  
 Project Manager: Eric Veerkamp

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 Project: Black Rock Geothermal Project  
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Revision No. 0 Date: 04/28/2023  
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 Technical Senior: Shahab Khoshmashrab

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) (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.	Section 5.7.3.2.1: Project Construction Noise Section 5.7.3.3 Operational Impacts Section 5.7.3.3.3: Project Operational Noise Modeling Section 5.7.3.3.4: Tonal Noise	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.	Section 5.7.3.2.1: Project Construction Noise (P. 5.7-4 to 5.7-8) Section 5.7.3.3 Operational Impacts (P. 5.7-9) Section 5.7.3.3.3: Project Operational Noise Modeling (P. 5.7-9 to 5.7-10)	No	Only cooling tower noise level was provided (Section 5.7.3.3.3 p. 5.7-9 to 5.7-10); however, the aggregate noise level from all operational equipment was not provided. Please provide the project's total operational noise level at one of the project site boundaries.
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.	Section 5.7.3.2.1: Project Construction Noise Section 5.7.3.3 Operational Noise 5.7.3.3.1: Worker Exposure Section 5.7.3.3.3: Project Operational Noise Modeling	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X** **DATA ADEQUACY WORKSHEET** Revision No. 0 Date: 04/28/2023  
 Technical Area: **Noise and Vibration** Project: Black Rock Geothermal Project Technical Staff: Kenneth Salyphone  
 Project Manager: Eric Veerkamp Docket: 23-AFC-03 Technical Senior: Shahab Khoshmashrab

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) (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.	Section 5.7.3.3.2: Transmission Line and Switchyard Noise Levels	Yes	
Appendix B (i) (1) (A)	Tables that 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 5.7.6: LORS Table 5.7-11: LORS	Yes	
Appendix B (i) (1) (B)	Tables that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	Section 5.7.6: LORS Table 5.7-11: LORS	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X** **DATA ADEQUACY WORKSHEET** Revision No. 0 Date: 04/28/2023  
 Technical Area: **Noise and Vibration** Project: Black Rock Geothermal Project Technical Staff: Kenneth Salyphone  
 Project Manager: Eric Veerkamp Docket: 23-AFC-03 Technical Senior: Shahab Khoshmashrab

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 provide the name of the official who will serve as a contact person for Commission staff.	Section 5.7.7: Agencies and Agency Contacts	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the Commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	n/a	n/a	



Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Paleontological Resources**  
 Project Manager: Eric VeerKamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Michael Turner, PG, CEG  
 Technical Senior: Karim Abulaban, PE

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.	Subsection 5.8.1.1 Physiographic and Geologic Setting pp. 5.8-1 through 5.8-2; Subsection 5.8.4 Mitigation Measures pp 5.8-9	Yes	
Appendix B (g) (16) (A)	Identification of the physiographic province and a brief summary of the geologic setting, formations, and stratigraphy of the project area. The size of the paleontological study area may vary depending on the depositional history of the region.	Subsection 5.8.1.1 Physiographic and Geologic Setting pp 5.8-1 through 5.8-2	Yes	
Appendix B (g) (16) (B)	A discussion of the sensitivity of the project area described in subsection (g)(16)(A) and the presence and significance of any known paleontological localities or other paleontological 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.	Subsection 5.8.1.2 Resource Inventory Methods pp 5.8-2 through 5.8-5	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Paleontological Resources**  
 Project Manager: Eric VeerKamp

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Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
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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) (16) (C)	A summary of all local museums, literature searches and field surveys used to provide information about paleontological resources in the project area described in (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.	Subsection 5.8.1.2.3 Results of the Records Search and Literature Review pp.5.8-5 through 5.8-6; Subsection 5.8.1.2.4 Results of the Field Survey pp.5.8-6	Yes	
Appendix B (g) (16) (D)	Information on the specific location of known palaeontologic resources, survey reports, locality records, and maps at a scale of 1:24,000, showing occurrences of fossil finds, if known, within a 1-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 California Code of Regulations, title 20, section 2501 et seq.	Subsection 5.8.1.2.3 Results of the Records Search and Literature Review pp.5.8-5 through 5.8-6; Subsection 5.8.1.2.4 Results of the Field Survey pp.5.8-6	Yes	
Appendix B (g) (16) (E)	A discussion of any educational programs proposed to enhance awareness of potential impacts to paleontological resources by employees, measures proposed for mitigation of impacts to known palaeontologic resources, and a set of contingency measures for mitigation of potential impacts to unknown paleontological resources.	Section 5.8.4 Mitigation Measures pp. 5.8-9	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Paleontological Resources**  
 Project Manager: Eric VeerKamp

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 Project: Black Rock Geothermal Project  
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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables that 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	Subsection 5.8.5 Laws, Ordinances, Regulations, and Standards pp. 5.8-9 through 5.8-11	Yes	
Appendix B (i) (1) (B)	Tables that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	Subsection 5.8.5 Laws, Ordinances, Regulations, and Standards pp. 5.8-9 through 5.8-11	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 provide the name of the official who will serve as a contact person for Commission staff.	Subsection 5.8.6 Agencies and Agency Contacts pp. 5.8-11 through 5.8-12; Table 5.8-4 Agency Contacts for Paleontological Resources pp 5.8-12	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.	Subsection 5.8.7 Permits and Permit Schedules pp. 5.8-12	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Project Overview**  
 Project Manager: Eric Veerkamp

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 Technical Senior: Eric Knight

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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.	Section 5.9.3.4 (Air Toxics Exposure Assessment Methodology), Section 2.3.2 (Salton Sea Geothermal Resources) pp 2-5 to 2-10 Appendices: 5-1 through 5-4, 5-6 through 5-10, 5-14	Yes	
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	Section 5.9.3.4 (Air Toxics Exposure Assessment Methodology), Section 2.3.2 (Salton Sea Geothermal Resources) pp 2-5 to 2-10 Appendices: 5-1 through 5-4, 5-6 through 5-10, 5-14, Appendix 3	Yes	
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;	BRGP Vol. 1, References, Sections 2.6, 3.6, 5.1.14, 5.2.7, 5.3.8, 5.4.10, 5.5.8, 5.6.8, 5.7.9, 5.8.8, 5.9.10, 5.10.1, 5.11.8, 5.12.9, 5.13.8, 5.14.8, 5.15.7, 5.16.6,	Yes	
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.	No Reliability, Efficiency, Alts, or Facility Design (listed as a section under Project Descrip.) chapters. See TOC for chapter locations.	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Project Overview**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
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 Technical Senior: Eric Knight

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) (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.	AFC Volume 1, Section 3, Electrical Transmission Line, pp. 3-1 Water: Section 2.3.3.4.2, pp 2-20 Pollution: LORS discussion, Section 5.1.11.1, pp. 5.1-56	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.	AFC Volume 1 Site Location, Section 2.3.3.1.2, pp. 2-10, Elevation drawings see Figure 2-1, General Arrangement	Yes	
Appendix B (a) (1) (C)	A description of and maps depicting the region, the vicinity, and the site and its immediate surroundings.	Vol. 1, Executive Summary, Section 1-5, Project, pp. 1-2 Ownership, Figures 1-1 to 1-4	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.	Vol. 1, Executive Summary, Section 1-5, Project Ownership, Figures 1-1 to 1-3	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 1A, list of property owners	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Project Overview**  
 Project Manager: Eric Veerkamp

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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 (a) (2)	Project Schedule: Proposed dates of initiation and completion of construction, initial start-up, and full-scale operation of the proposed facilities.	Vol. 1, Executive Summary, Project Schedule, Section 1.6, pp. 1-7	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.	Vol. 1, Executive Summary, Section 1-5, Project Ownership, pp. 1-2	No	Ownership interest of the project and the geothermal leasehold only is provided. More detailed ownership information specifying all additional aspects of the project is requested.
Appendix B (a) (3) (B)	A list of all owners and operators of the proposed electric transmission facilities.	AFC Volume 1, Section 3, Electrical Transmission Line, 3-1 AFC Volume 2 Appendix 3 Electric Transmission Exec. Summary Section 1-5, Project Ownership	Yes	
Appendix B (a) (3) (C)	A description of the legal relationship between the applicant and each of the persons or entities specified in (a)(3)(A) and (B).	Vol. 1, Executive Summary, Section 1-5, Project Ownership, pp. 1-2	No	A more full and detailed description of the relationships between the site, wells, linears (including transmission) or a statement that they are one and the same.
Appendix B (b) (1)	In a section entitled, "Generation Facility Description, Design, and Operation" provide:	_____		

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Project Overview**  
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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 (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;	Site plan is at 1"=1,000 ft. scale at AFC Volume 1, Section 2.3, pp. 2-3  Parcel detail info shown at a different location	Yes, scale is greater than a specified 1:2,000 ft.	
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);	Elevation drawings see Figures 2-4a to 2-4c, pp. 2-11 through 2-14 Photo simulations, Section 5.13 Visual Resources, figures 5.13-2a through 5.13-2f, pp. 5-13-4 through 11	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	Vol. 1, Section 2.3.5 Facilities, Operations and Maint. Cooling tower and cooling process discussed under Facility Description (2.3.1), AQ (5.1.7.1.2), Cooling Alternatives (6.5.2) Emergencies discussed at 5.15.5.3, Local LORS, referencing the preparation of an Emergency Response Plan Waste Disposal Summary provided at 5.14.2.4	Yes, auxiliary power provided by IID, no other fuel considerations	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Project Overview**  
 Project Manager: Eric Veerkamp

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Revision No. 0 Date: 4/28/23  
 Technical Staff: Eric Veerkamp  
 Technical Senior: Eric Knight

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 other factors considered by the applicant.	AFC Volume 1, Project Description, Project Site Selection, 2.3.2.2	Yes	
Appendix B (b) (2)	In a section titled, "Transmission Lines Description, Design, and Operation" provide:	_____		
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);	Figure 3-2a, page 3-4	Yes	
Appendix B (b) (2) (B)	A full-page color photographic reproduction depicting a representative above ground section of the transmission line route prior to construction and a full-page color photographic simulation of that section of the transmission line route after construction.	Figure 3-2a	No	There are one-line drawings on an aerial photo showing the alignment of all T-line alignments, Figure 5.13-2f includes a visual simulation of the T-line, and Appendix 3 contains a rendering of individual towers, but not a section. A visual representation of a section is requested.



Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Project Overview**  
 Project Manager: Eric Veerkamp

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 Technical Senior: Eric Knight

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.	AFC Volume 1, Section 3, Electrical Transmission Line, 3-1 AFC Volume 2 Apppendix 3 Electric Transmission	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	AFC Volume 1, Section 6.4.1, Electrical Transmission Line Route Alternatives	Yes	
Appendix B (b) (3) (3)	(A) Maps at a scale of 1:24,000 (or appropriate map scale agreed to by staff) showing the location of the geothermal leaseholds, along with a description by section, township, range, county, and assessor's parcel numbers of the leaseholds;  (B) Full-page color photographic reproductions of the geothermal leaseholds;  (C) A description of the process by which the geothermal leasehold was selected and the consideration given to engineering constraints, site geology, environmental impacts, water,	Project Site Selection, 2.3.2.2, Map of Leaseholds, Figure 2-3  Section 2.3, Facility Description and Location, 2 .3.3, Salton Sea KGRA Geothermal Resource	Yes  Yes  Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Project Overview**  
 Project Manager: Eric Veerkamp

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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
	<p>steam, waste and fuel constraints, electric transmission constraints, and any other factors considered by the applicant. Include references to any environmental documents which address steam field development;</p> <p>(D) A detailed description of the type, quality, and characteristics of the geothermal resource, including pressure and temperature flow rates, constituents and concentrations of non-condensable gases, and constituent concentrations of dissolved solids, and descriptions and concentrations of any substances potentially harmful to public health and safety or to the environment;</p> <p>(E) Proposed locations of production and re-injection wells for the project. Include the applicant's assessment of geothermal resource adequacy, including the production history of those wells within the leaseholds dedicated to the project, including pressure decline curves as available;</p> <p>(F) A discussion of the potential impacts on the temperature, mineral content, and rate of flow of thermal springs affected by the project.</p>	<p>2.3.2.2, Project Site Selection, plus resource adequacy testimony from 2002 related to Salton Sea Unit 6 addressing steam field development docketed on 4/28). Additional testimony to be docketed on May 5. Section 2.3.2, Salton Sea KGRA Geothermal Resources</p> <p>Figure 1-4 provides general location of production well, injection well, and pad locations. Figure 2-7, Excavation Depth diagram is included for Morton Bay and Black Rock, diagram includes well and pad location notations in the diagram, but almost as incidental to the general discussion of earthwork.</p> <p>Section 2.3.2, Salton Sea KGRA Geothermal Resources</p>	<p>Yes</p> <p>No</p> <p>Yes</p>	<p>Detailed discussion with well numbers, of all wells and well pads, including production, injection, and make-up wells, along with diagrams at a suitable scale, should be included in the AFC, as part of the larger discussion of the geothermal leases and site selection, suggest 2.3.3 with discussion headings for each well type.</p>
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	AFC Volume 1, Section 2.3.6, Facility Closure, pp. 2-55 to 2-56	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **x**  
 Technical Area: **Public Health**  
 Project Manager: **Eric Veerkamp**

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Revision No. **0** Date: **4/28/2023**  
 Technical Staff: **Huei-An (Ann) Chu**  
 Technical Senior: **Joseph Hughes**

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
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 5.9.2, page 5.9-1 to 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 sections 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 5.9.3, page 5.9-2 to 5.9-15	Yes	
Appendix B (g) (9) (B)	A listing of the input data and output results, in both electronic and print formats, used to prepare the HARP health risk assessment.	Appendix 5.9A, Appendix 5.9B	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 5.9.2, page 5.9-2	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **x**  
 Technical Area: **Public Health**  
 Project Manager: **Eric Veerkamp**

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 Project: **Black Rock Geothermal Project**  
 Docket: **23-AFC-03**

Revision No. **0** Date: **4/28/2023**  
 Technical Staff: **Huei-An (Ann) Chu**  
 Technical Senior: **Joseph Hughes**

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) (D)	A map showing sensitive receptors within the area exposed to the substances identified in subsection (g)(9)(A).		No	There is no map showing complete sensitive receptors. Figure 5.9-1 only shows PMI, MEIW, MEIR and maximally exposed sensitive receptor. Figure 5.9-2 only shows nearby residential receptors.
Appendix B (g) (9) (E)	For this section, the following definitions apply:			
Appendix B (g) (9) (E) (i)	A sensitive receptor refers to infants and children, the elderly, and the chronically ill, and any other member of the general population who is more susceptible to the effects of the exposure than the population at large;	Section 5.9.2, page 5.9-2	Yes	
Appendix B (g) (9) (E) (ii)	An acute exposure is one that occurs over a time period of less than or equal to one (1) hour; and	Section 5.9.3, page 5.9-3	Yes	
Appendix B (g) (9) (E) (iii)	A chronic exposure is one that is greater than twelve (12) percent of a lifetime of seventy (70) years.	Section 5.9.3, page 5.9-3	No	The applicant did define chronic toxicity but there is no definition regarding "a chronic exposure is one that is greater than twelve (12) percent of a lifetime of seventy (70) years."
Appendix B (i) (1) (A)	Tables that 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 5.9.7, page 5.9-20 to page 5.9-21	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **x** **DATA ADEQUACY WORKSHEET** Revision No. 0 Date: 4/28/2023  
 Technical Area: **Public Health** Project: Black Rock Geothermal Project Technical Staff: Huei-An (Ann) Chu  
 Project Manager: Eric Veerkamp Docket: 23-AFC-03 Technical Senior: Joseph Hughes

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 that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	Section 5.9.8, page 5.9-22	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 provide the name of the official who will serve as a contact person for Commission staff.	Section 5.9.8, page 5.9-22	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 5.9.9, page 5.9-22, Sections 5.5 and Section 5.1	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Reliability**  
 Project Manager: Eric Veerkamp

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 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Ardalan Raisi Sofi  
 Technical Senior: Shahab Khoshmashrab

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.	Chapter 2: Project Description Section 2.3: Facility Description and Location Section 2.3.2.2: Project Site Selection Section 2.3.3: Facility Description Section 2.3.3.1.3: Site Layout Section 2.3.4: Construction Section 2.3.5: Facilities, Operations and Maintenance Section 2.4.2: Reliability	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.	Chapter 2: Project Description Section 2.3: Facility Description and Location Section 2.3.1: Introduction Section 2.3.2.2.2: Geothermal Resource Adequacy Section 2.3.3.4.2: Water Supply and Treatment	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Reliability**  
 Project Manager: Eric Veerkamp

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 Project: Black Rock Geothermal Project  
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Revision No. 0 Date: 4/28/2023  
 Technical Staff: Ardalan Raisi Sofi  
 Technical Senior: Shahab Khoshmashrab

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)	A discussion of the anticipated service life and degree of reliability expected to be achieved by the proposed facilities on consideration of:	Section 2.3.5: Facilities, Operations and Maintenance Section 2.4.1: Facility Availability	Yes	
Appendix B (h) (3) (B) (i)	Expected overall availability factor, and annual and lifetime capacity factors;	Section 2.4.1: Facility Availability Chapter 4: Demand Conformance	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;	Section 2.3: Facility Description and Location Section 2.3.3: Facility Description Section 2.3.3.2: Resource Production Facility Section 2.3.3.2.1: Production Wells and Pipelines Section 2.3.3.2.2: Fluid/Steam Handling System Section 2.3.3.2.3: Solids Dewatering Section 2.3.3.2.4: Fluid Injection System Section 2.3.3.3: Power Generation Facility Section 2.3.3.3.1: Turbine Generator System	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Reliability**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
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 Technical Staff: Ardalan Raisi Sofi  
 Technical Senior: Shahab Khoshmashrab

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
		Section 2.3.3.3.2: Heat Rejection System Section 2.3.3.3.3: Cooling Tower Section 2.3.3.4: Facility Support Systems Section: 2.3.3.4.2: Water Supply and Treatment Section 2.3.3.4.3: Fluid Process Streams Section 2.3.3.4.4: Nonhazardous Waste Management Section 2.3.3.4.5: Hazardous Waste Management Section 2.3.3.4.6: Hazardous Materials Management Section 2.3.3.4.7: Emissions Control Equipment		



Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Reliability**  
 Project Manager: Eric Veerkamp

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 Technical Staff: Ardalan Raisi Sofi  
 Technical Senior: Shahab Khoshmashrab

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) (iii)	Geologic and flood hazards, meteorologic conditions and climatic extremes, and cooling water availability;	Section 2.4.2.6: Geothermal Fluid/Water Availability Section 2.4.3.1: Geothermal Power Facility Section 2.4.3.1.2: Flooding Section 5.1.4.2: Climate and Meteorology	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	Section 2.3.3.2.4: Fluid Injection System Section 2.4.2: Reliability	Yes	
Appendix B (h) (3) (B) (v)	For technologies not previously installed and operated in California, the expected power plant maturation period.	N/A	N/A	
Appendix B (i) (1) (A)	Tables that 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	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Reliability**  
 Project Manager: Eric Veerkamp

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Appendix B (i) (1) (B)	Tables that 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 that 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 provide the name of the official who will serve as a contact person for Commission staff.	N/A	N/A	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the Commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	N/A	N/A	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Socioeconomics**  
 Project Manager: Eric Veerkamp

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Revision No. 0 Date: 4/28/2023  
 Technical Staff: Ellen LeFevre  
 Technical Senior: Steve Kerr

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
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.	Pg. 5.10-1 section 5.10.1. pg. 5.10-12 section 5.10.2.3.4. Pg. 5.10-16 – 5.10-17 section 5.10.3. pg. 5.10-17 section 5.10.4. pg. 5.10-15 section 5.10.2.4.4	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:	Pg. 5.10-1 – 5.10-7 section 5.10.1	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;	Pg. 5.10-5 – 5.10-6 section 5.10.1.4 table 5.10-6	Yes	
Appendix B (g) (7) (A) (ii)	The social characteristics, including population and demographic and community trends;	Pg. 5.10.1 – 5.10-2 section 5.10.1.1 tables 5.10-1, 5.10-2	Yes	
Appendix B (g) (7) (A) (iii)	Existing unemployment rates;	Pg. 5.10-5 section 5.10.1.3 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;	Pg. 5.10-11 section 5.10.2.3.1 Table 5.10-10	Yes	
Appendix B (g) (7) (A) (v)	Availability of temporary and permanent housing and current vacancy rate; and	Pg. 5.10-2 section 5.10.1.2 table 5.10-3	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Socioeconomics**  
 Project Manager: Eric Veerkamp

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 Technical Senior: Steve Kerr

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.	Pg. 5.10-6 – 5.10-8, section 5.10.1.5, 5.10.1.6, 5.10.1.7, table 5.10-7	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:	Pg. 5.10-12 section 5.10.2.3.4 pg. 5.10-15 section 5.10.2.4.4	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;	Pg. 5.10-9 – 5.10-10, section 5.10.2.3.1, table 5.10-8. Pg. 5.10-13 – 5.10-14, section 5.10.2.4.1, table 5.10-11	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;	Pg. 5.10-11, section 5.10.2.3.2. Pg. 5.10-14 section 5.10.2.4.2	Yes	
Appendix B (g) (7) (B) (iii)	An estimate of the potential population increase caused directly and indirectly by the project;	Pg. 5.10-11, section 5.10.2.3.2. pg. 5.10-14, section 5.10.2.4.2	Yes	
Appendix B (g) (7) (B) (iv)	The potential impact of population increase on housing during the construction and operations phases;	Pg. 5.10-11, section 5.10.2.3.3. pg. 5.10-15, section 5.10.2.4.3	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Socioeconomics**  
 Project Manager: Eric Veerkamp

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (v)	The potential impacts, including additional costs, on utilities (gas, water, and waste) and public services, including fire, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. Include response times to hospitals and for police, and emergency services. For projects outside metropolitan areas with a population of 500,000 or more, information on schools shall include project nn related enrollment changes by grade level groupings and associated facility and staffing impacts by school district during the construction and operating -phases;	Pg. 5.10-13, sections 5.10.2.3.6, 5.10.2.3.7, 5.10.2.3.8. pg. 5.10-16, sections 5.10.2.4.6, 5.10.2.4.7, 5.10.2.4.8. pg. 5.10-7 section 5.10.1.6.	Yes	
Appendix B (g) (7) (B) (vi)	An estimate of applicable school impact fees;	Pg. 5.10-16, 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;	Pg. 5.10-12, section 5.10.2.3.4. pg. 5.10-15, section 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;	Pg. 5.10-12, section 5.10.2.3.5. pg. 5.10-15, section 5.10.2.4.5.	Yes	
Appendix B (g) (7) (B) (ix)	An estimate of the capital cost (plant and equipment) of the project;	Pg. 5.10-12 section 5.10.2.3.4	Yes	
Appendix B (g) (7) (B) (x)	An estimate of sales taxes generated during construction and separately during an operational year of the project;	Pg. 5.10-12, section 5.10.2.3.5. pg 5.10-15, section 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	Pg. 5.10-15 section 5.10.2.4.5	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Socioeconomics**  
 Project Manager: Eric Veerkamp

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 Technical Staff: Ellen LeFevre  
 Technical Senior: Steve Kerr

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
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.	Pg. 5.10-12, section 5.10.2.3.4. pg. 5.10-15, section 5.10.2.4.4. Pg. 5.10-13 section 5.10.2.4.1	Yes	
Appendix B (i) (1) (A)	Tables that 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	Pg. 5.10-17 – 5.10-18, section 5.10.5, table 5.10-12	Yes	
Appendix B (i) (1) (B)	Tables that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	Pg. 5.10-19 section 5.10.7	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 provide the name of the official who will serve as a contact person for Commission staff.	Pg. 5.10-18 – 5.10-19, section 5.10.6, table 5.10-13. Pg. 5.10-11 section 5.10.2.3.1 table 5.10-9	Yes	

Adequacy Issue:	Adequate <u><b>X</b></u> Inadequate _____	<b>DATA ADEQUACY WORKSHEET</b>	Revision No. <u>0</u>	Date: <u>4/28/2023</u>
Technical Area:	<u><b>Socioeconomics</b></u>	Project: <u>Black Rock Geothermal Project</u>	Technical Staff: <u>Ellen LeFevre</u>	
Project Manager:	<u>Eric Veerkamp</u>	Docket: <u>23-AFC-03</u>	Technical Senior: <u>Steve Kerr</u>	

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.	Pg. 5.10-19 section 5.10.7	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐

Technical Area: **Soils**

Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project

Docket: 23-AFC-03

Revision No. 0 Date: 4-28-23

Technical Staff: James Ackerman

Technical Senior: Abdel-Karim Abulaban

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 5.11-1 thru 5.11-33; Figure 5.11-1, Page 15.11-3; Table 5.11-1, Pages 15.11-4 thru 15.11-7; Table 5.11-2, Page 5.11-11; Figure 5.11-2, Page 15.11-12; Table 5.11-3, Pages 15.11-24 thru 15.11-28; Table 15.11-4, Page 15.11-32	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, Pages 15.11-1 thru 15.11-11; Figure 5.11-1, Page 15.11-3; Table 5.11-1, Pages 15.11-4 thru 15.11-7; Table 5.11-2, Page 5.11-11;	Yes	
Appendix B (g) (15) (A) (i)	The depth, texture, permeability, drainage, erosion hazard rating, and land capability class of the soil;	Table 5.11-1, Pages 15.11-4 thru 15.11-7; Section 5.11.1.3, Pages 15.11-7 thru 15.11-9	Yes	
Appendix B (g) (15) (A) (ii)	An identification of other physical and chemical characteristics of the soil necessary to allow an evaluation of soil erodibility, permeability, re-vegetation potential, and cycling of pollutants in the soil-vegetation system;	Table 5.11-1, Pages 15.11-4 thru 15.11-7; Section 5.11.1.3, Pages 15.11-7 thru 15.11-9	Yes	



Adequacy Issue: Adequate ☒ Inadequate \_\_\_\_\_  
 Technical Area: **Soils**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4-28-23  
 Technical Staff: James Ackerman  
 Technical Senior: Abdel-Karim Abulaban

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
Appendix B (g) (15) (A) (iii)	The location of any proposed fill disposal or fill procurement (borrow) sites; and	Section 5.11.1.2, Page 5.11-2; Table 5.11-1, Pages 15.11-4 thru 15.11-7; Section 5.11.1.3, Pages 15.11-7 thru 15.11-9; Section 15.11.1.4.1, Pages 5.11-10 & 15.11-11; Figure 5.11-2, Page 15.11-12; Section 5.11.2.2.7, Pages 5.11-19 & 15.11-20; Section 5.11.2.3.1, Page 15.11-20; Section 5.11.4.2, pages 5.11-22 & 5.11-23	Yes	
Appendix B (g) (15) (A) (iv)	The location of any contaminated soils that could be disturbed by project construction.	Section 5.14.1.1, Pages 15.14-1 & 15.14-2	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 15.11.2, Pages 15.11-11 thru 15.11-21; Section 15.11.3, Pages 15.11-21 & 15.11-22	Yes	
Appendix B (g) (15) (B) (i)	The quantification of accelerated soil loss due to wind and water erosion; and	Section 5.11.2.1, Page 15.11-13; Section 5.11.2.2.1, Pages 5.11-13 & 15.11-14; Section 5.11.2.2.4, Pages 15.11-16 & 15.11-17;	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐

Technical Area: **Soils**

Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project

Docket: 23-AFC-03

Revision No. 0 Date: 4-28-23

Technical Staff: James Ackerman

Technical Senior: Abdel-Karim Abulaban

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
		Section 5.11.2.2.6, Pages 15.11-18 & 15.11-19; Section 5.11.2.2.7, Pages 15.11-19 & 15.11-20; Section 15.11.4.1, Page 5.11-22		
Appendix B (g) (15) (B) (ii)	The effect of power plant emissions on surrounding soil-vegetation systems.	Section 5.11.2.3.3, Page 5.11-21	Yes	
Appendix B (i) (1) (A)	Tables that 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 15.11-24 thru 15.11-32; Table 5.11-3, Pages 15.11-24 thru 15.11-28;	Yes	
Appendix B (i) (1) (B)	Tables that 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 that 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 15.11-24 thru 15.11-32; Table 5.11-3, Pages 15.11-24 thru 15.11-28;	Yes	

Adequacy Issue: Adequate ☒ Inadequate \_\_\_\_\_  
 Technical Area: **Soils**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4-28-23  
 Technical Staff: James Ackerman  
 Technical Senior: Abdel-Karim Abulaban

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 provide the name of the official who will serve as a contact person for Commission staff.	Table 5.11.4, Page 5.11-32	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 5.11.7, Page 5.11-33	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Traffic and Transportation**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Steve Kerr  
 Technical Senior: Steve Kerr

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.	Pgs. 5.12-1 to 5.12-22, 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.	Pgs. 5.12-1 to 5.12-3, Section 5.12.1.1; Figure 5.12-1	Yes	
Appendix B (g) (5) (B)	If the proposed project including any linear facility is to be located within 20,000 feet of an airport runway that is at least 3,200 feet in actual length, or 5,000 feet of a heliport (or planned or proposed airport runway or an airport runway under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration), discuss the project's compliance with the applicable sections of the current Federal Aviation Regulation Part 77 – Objects Affecting Navigable Airspace, specifically any potential to obstruct or impede air navigation generated by the project at operation; such as, a thermal plume, a visible water vapor plume, glare, electrical interference, or surface structure	Pg. 5.12-17, Table 5.12-13	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Traffic and Transportation**  
 Project Manager: **Eric Veerkamp**

**DATA ADEQUACY WORKSHEET**

Project: **Black Rock Geothermal Project**  
 Docket: **23-AFC-03**

Revision No. **0** Date: **4/28/2023**  
 Technical Staff: **Steve Kerr**  
 Technical Senior: **Steve Kerr**

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
	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.			
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, where applicable:	Pgs. 5.12-2 to 5.12-3, Figure 5.12-2	Yes	
Appendix B (g) (5) (C) (i)	Road classification and design capacity;	Pg. 5.12-5, Section 5.12.1.2	Yes	
Appendix B (g) (5) (C) (ii)	Current daily average and peak traffic counts;	Pg. 5.12-5, Section 5.12.1.2.1	Yes	
Appendix B (g) (5) (C) (iii)	Current and projected levels of service before project development, during construction, and during project operation;	Pgs. 5.12-5 to 5.12-15, Sections 5.12.1.2 to 5.12.4.2	Yes	
Appendix B (g) (5) (C) (iv)	Weight and load limitations;	Pg. 5.12-6, Section 5.12.1.3	Yes	
Appendix B (g) (5) (C) (v)	Estimated percentage of current traffic flows for passenger vehicles and trucks; and	Pg. 5.12-5, Section 5.12.1.2.1	Yes	
Appendix B (g) (5) (C) (vi)	An identification of any road features affecting public safety.	Pgs. 5.12-1 to 5.12.2, Section 5.12.1.2	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Traffic and Transportation**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Steve Kerr  
 Technical Senior: Steve Kerr

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 (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 (g)(5)(C).	Pgs. 5.12-8 to 5.12-16, Sections 5.12.2.2 to 5.12.5	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.	Pg. 5.12-14, Section 5.12.3	Yes	
Appendix B (i) (1) (A)	Tables that 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	Pgs. 5.12-16 to 5.12-20, Section 5.12.6	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Traffic and Transportation**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**

Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 4/28/2023  
 Technical Staff: Steve Kerr  
 Technical Senior: Steve Kerr

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 that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	Pgs. 5.12-21 to 5.12-22, Section 5.12.8	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 provide the name of the official who will serve as a contact person for Commission staff.	Pgs. 5.12-20 to 5.12-21, 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.	Pgs. 5.12-21 to 5.12-22, Section 5.12.8	Yes	

Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Trans Line Safety & Nuisance**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No. 0 Date: 04/27/2023  
 Technical Staff: Sudath Edirisuriya  
 Technical Senior: Joseph Hughes

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 2.3.1 Section 2.3.2 Section 2.3.3 Section 5.10.3 AFC Volume 1	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 1.2,1.3,2.1,2.3 Section 3 Figure 3-2a AFC Volume 1	Yes	
Appendix B (g) (18) (B)	An estimate of the existing electric and magnetic fields from the facilities listed in (A) above and the future electric and magnetic fields that would be created by the proposed project, calculated at the property boundary of the site and at the edge of the rights of way for any transmission line. Also provide an estimate of the radio and television interference that could result from the project.	Section 1.1 Section 3.5.1 Appendix 3B Tabel 5-1 Appendix B & C	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 3.3 Section 3.5	Yes	



Adequacy Issue: Adequate \_\_\_\_\_ Inadequate **X**  
 Technical Area: **Trans Line Safety & Nuisance**  
 Project Manager: **Eric Veerkamp**

**DATA ADEQUACY WORKSHEET**

Project: **Black Rock Geothermal Project**  
 Docket: **23-AFC-03**

Revision No. **0** Date: **04/27/2023**  
 Technical Staff: **Sudath Edirisuriya**  
 Technical Senior: **Joseph Hughes**

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
Appendix B (i) (1) (A)	Tables that identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 6.1 to 6.3 Appendix 3B Tabel 5-1 and 5-2	No	Provide a table including LORS relevant to TLS&N
Appendix B (i) (1) (B)	Tables that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	Section 5.0 Volume 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 provide the name of the official who will serve as a contact person for Commission staff.	Appendix 1B	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 5.9.9 Section 5.1 and 5.5	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Transmission System Design**  
 Project Manager: **Eric Veerkamp**

**DATA ADEQUACY WORKSHEET**

Project: **Black Rock Geothermal Project**  
 Docket: **23-AFC-03**

Revision No. **0** Date: **4/28/23**  
 Technical Staff: **Laiping Ng**  
 Technical Senior: **Mark Hesters**

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
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 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 3 Page 3-1 to 3-5  Figure 3-1 Figure 3-2a Figure 3-2b	Yes	
Appendix B (b) (2) (C)	A detailed description of the design, construction, and operation of any electric transmission facilities, such as power lines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility. Such description shall include the width of rights of way and the physical and electrical characteristics of electrical transmission facilities such as towers, conductors, and insulators.	Section 2.3.3.3 Page 2-18 Section 2.3.3.4 Page 2-19  Figure 2-7a	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Transmission System Design**  
 Project Manager: **Eric Veerkamp**

**DATA ADEQUACY WORKSHEET**  
 Project: **Black Rock Geothermal Project**  
 Docket: **23-AFC-03**

Revision No. **0** Date: **4/28/23**  
 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 2.3.4.4 Page 2-42 Figure 2-7a Figure 2-7b	Yes	
Appendix B (b) (2) (E)	<p>A completed System Impact Study or signed System Impact Study Agreement with the California Independent System Operator and proof of payment. When not connecting to the California Independent System Operator controlled grid, provide the executed System Impact Study agreement and proof of payment to the interconnecting utility.</p> <p>If the interconnection and operation of the proposed project will likely impact a transmission system that is not controlled by the interconnecting utility (or California Independent System Operator), provide evidence of a System Impact Study or agreement and proof of payment (when applicable) with/to the impacted transmission owner or provide evidence that there are no system impacts requiring mitigation.</p>	<p>Section 2.3.1 Page 2-5</p> <p>Appendix 3A BHE Cluster System Impact Study</p>	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐  
 Technical Area: **Transmission System Design**  
 Project Manager: **Eric Veerkamp**

**DATA ADEQUACY WORKSHEET**

Project: **Black Rock Geothermal Project**  
 Docket: **23-AFC-03**

Revision No. 0 Date: 4/28/23  
 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 (i) (1) (A)	Tables that 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 Page 3-1 Section 5.6.1.2.4 Page 5.6-2	Yes	
Appendix B (i) (1) (B)	Tables that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	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 provide the name of the official who will serve as a contact person for Commission staff.	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		

Adequacy Issue: Adequate   X   Inadequate        **DATA ADEQUACY WORKSHEET** Revision No.   0   Date:   4/28/2023    
 Technical Area:   Visual Resources   Project:   Black Rock Geothermal Project   Technical Staff:   Mark R. Hamblin    
 Project Manager:   Eric Veerkamp   Docket:   23-AFC-03   Technical Senior:   Steve Kerr  

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.	pg. 5.13-2, section 5.13.2.3. pg. 5.13-19-23, section 5.13.3.3. pg. 5.13-24-28, section 5.13.3.4. pg. 5.13.28, section 5.13.4. pg. 5.13.28, section 5.13.5.	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:	pg. 5.13-1-2, section 15.13.2.1 -3. pg. 15.13-14-15, section 15.13.2.5.1.	Yes	
Appendix B (g) (6) (A) (i)	Topographic maps at a scale of 1:24,000 that depict directions from which the project would be seen, the view areas most sensitive to the potential visual impacts of the project, and the locations where photographs were taken for (g)(6)(C); and	pg. 5.13-3, 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.	pg. 5.13-15-17, section 5.13.2.6.1-7. pg. 5.13-13, section 5.13.2.4.	Yes	

Adequacy Issue: Adequate   X   Inadequate         
 Technical Area: **Visual Resources**  
 Project Manager: Eric Veerkamp

**DATA ADEQUACY WORKSHEET**  
 Project: Black Rock Geothermal Project  
 Docket: 23-AFC-03

Revision No.   0   Date: 4/28/2023  
 Technical Staff: Mark R. Hamblin  
 Technical Senior: Steve Kerr

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 landforms, would be visually compatible with the character of surrounding areas.	pg. 5.13-17, section 5.13.2.8.	Yes	
Appendix B (g) (6) (C)	In consultation with Commission staff, identify: i) 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 (that is, residents, recreationists, workers, commuters, etc.) and the approximate number of vehicles, bicyclists, and/or hikers per day.	pg. 5.13.13-17, section 5.13.2.5.1-7.	Yes	
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	pg. 5.13-21-23, section 5.13.3.3.8.	Yes	

Adequacy Issue: Adequate   X   Inadequate         
 Technical Area: **Visual Resources**  
 Project Manager: Eric Veerkamp

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Revision No.   0   Date: 4/28/2023  
 Technical Staff: Mark R. Hamblin  
 Technical Senior: Steve Kerr

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	visible from off the project site, including any project-related electrical transmission line and/or offsite aboveground pipelines and metering stations.			
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 (that is, evaporative coolers, inlet foggers, or steam injection) and duct firing, or proposed HRSG visible plume abatement, such as the use of an economizer bypass. For simple-cycle projects, provide analogous data for the exhaust stack(s).	pg. 5.13-24, section 5.13.3.3.11.  Table 20. Generator 1 Emission Data. Table 21. Generator 2-4 Emission Data.  Air Dispersion Modeling Protocol for Black Rock Geothermal Plant, pg. 4-1, section 4.2.1	Yes	

Adequacy Issue: Adequate   X   Inadequate         
 Technical Area: **Visual Resources**  
 Project Manager: Eric Veerkamp

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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.	pg. 5-13-4-12, figure 5.13-2a-c.	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.	pg. 5.13-24-28, section 5.13.3.4.1-3 and section 5.13.3.5.	Yes	



Adequacy Issue: Adequate   X   Inadequate         
 Technical Area: **Visual Resources**  
 Project Manager: Eric Veerkamp

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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.	NA	NA	
Appendix B (i) (1) (A)	Tables that 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	pg. 5.13-28-29, section 5.13.6. pg. 5.13-31-33, section 5.13.6.4.	Yes	
Appendix B (i) (1) (B)	Tables that 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.	pg. 5.13-33, section 5.13.6.5.	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 provide the name of the official who will serve as a contact person for Commission staff.	pg. 5.13-33, section 5.13.6.5.	Yes	

Adequacy Issue: Adequate   X   Inadequate

Technical Area:   **Visual Resources**

Project Manager:   Eric Veerkamp

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Technical Staff:   Mark R. Hamblin

Technical Senior:   Steve Kerr

Date:   4/28/2023

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Appendix B (i) (3)	A schedule indicating when permits outside the authority of the Commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	pg. 5.13-33, section 5.13.7.	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Waste Management**  
 Project Manager: Eric Veerkamp

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 Technical Senior: Karim Abulaban, PE

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Appendix B (b) (1) (C)	A detailed description of the design, construction and operation of the facilities, specifically including the power generation, cooling, water supply and treatment, waste handling and control, pollution control, fuel handling, and safety, emergency and auxiliary systems, and fuel types and fuel use scenarios; and	Section 2.3, Facility Description and Location pp. 2-2 through 2-5, including figures contained within; Section 2.4.3 Safety pp. 2-56 through 2-59; Section 5.14 Waste Management pp 5.14-1 through 5.14-4; Subsection 5.15.1.9 Water Supply pp. 5.15-9 through 5.15-10	Yes	
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Subsection 5.14.4.3 Facility Closure pp. 5.14-12 through 5.14-13	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.	Subsection 5.4.1.1 Local Setting and Regional Geology pp. 5.4-1 through 5.4-2; Subsection 5.14.3 Cumulative Effects pp. 5.14-9 through 5.14-10; Subsection 5.14.4 Mitigation and Waste management Methods pp. 5.14-10 through 5.14-13	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Waste Management**  
 Project Manager: Eric Veerkamp

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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 Commission 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.	Subsection 5.14.1.1 Site Investigation pp. 5-14.1 through 5.4-2; Appendix 5.14A	No	Evidence of the ESA being completed no more than one year ago shall be provided.
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.	Subsection 5.14.1.2 Project Waste Generation pp. 5.14-2 through 5.14-5; Table 5.14-1 Potential Wastes Generated during Construction pp. 5.14-2 through 5.14-3; Table 5.14-2 Potential Wastes Generated during Project Operations pp. 5.14-4 through 5.14.5	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
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 Project Manager: Eric Veerkamp

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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 California Code of Regulations, title 23, section 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.	Subsection 5.14.2.3 Solid Waste Disposal pp. 5-14-6 through 5.14-9; Table 5.14-3 Solid Nonhazardous Waste Disposal in the Vicinity of the Project pp. 5.14-8; Subsection 5.14.2.4 Waste Disposal Summary pp. 5.14-9	Yes	
Appendix B (g) (12) (D)	A description of management methods for each waste stream, including methods used to minimize waste generation, length of on- and off-site waste storage, re-use and recycling opportunities, waste treatment methods used, and use of contractors for treatment.	Subsection 5.14.4 Mitigation and Waste Management Methods pp. 5.14-10 through 5.14-13	Yes	
Appendix B (h) (1) (B)	A discussion of any measures proposed to improve adverse site conditions.	Subsection 5.14.4 Mitigation and Waste Management Methods pp. 5.14-10 through 5.14-13	Yes	
Appendix B (h) (1) (D) (v)	The waste disposal system and on-site disposal sites;	Subsection 5.14.2.3 Solid Waste Disposal pp. 5.14-6 through 5.14-9; Table 5.14-3 pp. 5.14-8	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
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 Project Manager: Eric Veerkamp

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Appendix B (i) (1) (A)	Tables that 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	Subsection 5.14.5 Laws, Ordinances, Regulations, and Standards pp. 5.14-13 through 5.14-15; Table 5.14.4 LORS for Waste Management 5.14-13 through 5.14-14	Yes	
Appendix B (i) (1) (B)	Tables that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	Table 5.14-5 Agency Contacts for Waste Management pp.5.14-16	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 provide the name of the official who will serve as a contact person for Commission staff.	Table 5.14-5 Agency Contacts for Waste Management pp. 5.14-16	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.	Subsection 5.14.7 Permits and Permit Schedule pp. 5.14-16	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_

Technical Area: **Water Resources**

Project Manager: Eric Veerkamp

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Technical Senior: Abdel-Karim Abulaban

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Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Sections 5.15.1, 5.15.2, 5.15.3, 5.15.4, 5.15.5, 5.15.6 & 5.15.7  Pages 5.15-1 thru 5.15-36	Yes	
Appendix B (g) (14) (A)	All the information required to apply for the following permits, if applicable, including:	Sections 5.15.1, 5.15.2, 5.15.3, 5.15.4, 5.15.5, 5.15.6 & 5.15.7  Pages 5.15-1 thru 5.15-36	Yes	
Appendix B (g) (14) (A) (i)	Waste Discharge Requirements; National Pollutant Discharge Elimination System Permit; and/or a Section 401 Certification or Waiver from the appropriate Regional Water Quality Control Board (RWQCB);	Section 5.15.2.4, Pages 5.15-16 thru 5.15-17;  Section 5.15.4, Page 5.15 -18; Table 5.15-5, Pages 5.15-20 thru 5.15-22;  Section 5.15.5, Pages 5.15-25 thru 5.15-27	Yes	
Appendix B (g) (14) (A) (ii)	Construction and Industrial Waste Discharge or Industrial Pretreatment permits from wastewater treatment agencies;	Section 5.15.1.5, Page 5.15-5; Section 5.15.1.7, Page 5.15-7; Section 5.15.2.3.2, Page 5.15-15; Table	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Water Resources**  
 Project Manager: Eric Veerkamp

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		5.15-5, Pages 5.15-20 thru 5.15-23; Section 5.15.5, Pages 5.15-25 thru 5.15-31; Section 5.15.6, Pages 5.15-34 thru 5.15-35		
Appendix B (g) (14) (A) (iii)	Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers; and	Table 5.15-5, Page 5.15-20; Section 5.15.5, Page 5.15-26; Table 5.15-6, Page 5.15-35	Yes	
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.	Table 5.15-5, Page 5.15-20; Section 5.15.5, Page 5.15-26	Yes, Section 5.11.2.2.2, pp. 5.11-15	
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 5.15-1 thru 5.15-13; Figures 5.15-1, 5.15-2, 5.15-3a & 5.15-3b	Yes	
Appendix B (g) (14) (B) (i)	Ground water bodies and related geologic structures;	Section 5.15.1.6, Pages 5.15-7 thru 5.15-11; Figure 5.15-2	Yes	



Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
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Appendix B (g) (14) (B) (ii)	Surface water bodies;	Section 5.15.1.4, Pages 5.15-2 thru 5.15-7; 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 5.15.1.8, Page 5.15-9; Figures 5.15-3a & 5.15-3b	Yes	
Appendix B (g) (14) (B) (iv)	Flood control facilities (existing and proposed); and	Section 5.15.1.8, Page 5.15-9; Figures 5.15-3a & 5.15-3b	Yes	
Appendix B (g) (14) (B) (v)	Groundwater wells within ½ mile if the project will include pumping.	Section 5.15.1, Pages 5.15-6 thru 5.15-14	Yes	
Appendix B (g) (14) (C)	A description of the water to be used and discharged by the project. This information shall include:	Section 5.15.1.9, Pages 5.15-9 thru 5.15-10; Section 5.15.2.1, Pages 5.15-13 thru 5.15-14; Section 5.15.2.2, Page 5.15-14	Yes	
Appendix B (g) (14) (C) (i)	Source(s) of the primary and back-up water supplies and the rationale for their selection;	Section 5.15.1.9, Pages 5.15-9 thru 5.15-10	Yes	
Appendix B (g) (14) (C) (ii)	The expected physical and chemical characteristics of the source and discharge water(s) including identification of both organic and inorganic constituents before and after any project-related treatment. For source waters with seasonal variation, provide seasonal ranges of the expected physical and chemical characteristics.	Section 2.3.3.4.2 & Table 2-5, Page 2-21; Section 5.15.1.7, Page 5.15-7; Section 5.15.1.9.1, Pages 5.15-9 thru 5.15-10; Table 5.15-4, Pages 5.15-9 thru 5.15-10	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
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	Provide copies of background material used to create this description (that is, laboratory analysis);			
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 5.15.1.7, Page 5.15-7; Section 5.15.1.9.1, Pages 5.15-9 thru 5.15-10; Section 5.15.2.1, Pages 5.15-13 thru 5.15-14; 5.15.3, Page 5.15-18; Table 5.15-5, Page 5.15-24; Section 5.15.5, Page 5.15-34	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 1.3, pages 1-1 thru 1-2; Section 2.3.3.4.2, Pages 2-20 thru 2-22; Section 2.3.3.4.3, Page 2-22; Section 5.15.1.9, Pages 5.15-9 thru 5.15-10; Section 5.15.2.2, Page 5.15-14; Section 5.15.2.3, Page 5.15-14 thru 5.15-16	Yes	
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	Section 1.3, Pages 1-1 & 1-2; Section 1.7.7, Page 1-8; Section 2.3.3.4.2, Page 2-20; Section 5.15.1.9.1, Page 5.15-9 & 5.15-10; Section 5.15.2.1.2,	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
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 Project Manager: Eric Veerkamp

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	any conditions or restrictions under which water will be provided. If a will-serve letter or letter of intent cannot be provided, identify the most likely water purveyor and discuss the necessary assurances from the water purveyor to serve the project;	Pages 5.15-13 & 5.15-14; Section 5.15.3, Page 5.15-18; Section 5.15.4, Page 5.15-19; Table 15.5-5, Page 5-15-24		
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 (that is, surface water, groundwater), and provide the status of all appropriate agencies' approvals for the proposed use, environmental impact analysis on the specific transfers or exchanges required to obtain the proposed supplies, a copy of any agency regulations that govern the use of the water, and an explanation of how the project complies with the agency regulation(s);	Section 1.3, Pages 1-1 & 1-2; Section 1.7.7, Page 1-8; Section 2.3.3.4.2, Page 2-20; Section 5.11.2.2.2, Page 5.11-15; Sections 5.11.4.5 & 5.11.4.9, Page 5.11-23; Section 5.15.2.2, Page 5.15-14; Section 5.15.1.9.1, Pages 5.15-9 & 5.15-10; Section 5.15.2.1.2, Pages 5.15-13 & 5.15-14; Section 5.15.3, Page 5.15-18; Section 5.15.4, Page 5.15-19; Table 15.5-5, Page 5-15-24	Yes	
Appendix B (g) (14) (C) (vii)	Provide water mass balance and heat balance diagrams for both average and maximum flows that include all process or ancillary water supplies and wastewater streams. Highlight any water conservation measures on the diagram	Figure 2-5, Page 2-23; Appendix 2-C	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_

Technical Area: **Water Resources**

Project Manager: Eric Veerkamp

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	and the amount that they reduce water demand; and			
Appendix B (g) (14) (C) (viii)	<p>For all projects which have a discharge, provide a copy of the will-serve letter, permit or contract with the public or private entity that will be accepting the wastewater and contact storm water from the project. The letter, permit or contract, if possible, shall identify the discharge volumes and the chemical or physical characteristics under which the wastewater and contact storm water will be accepted.</p> <p>In the event that a will-serve letter, permit, or contract cannot be provided, identify the most likely wastewater/storm water entity and discuss why the applicant was unable to secure the necessary assurances to serve the project's wastewater/storm water needs. Also, discuss the term of the wastewater service to the project, whether the wastewater entity has adequate permit capacity for the volume of wastewater from the project and has adequate permit levels for the chemical/physical characteristics of the project's wastewater and storm water for the life of the project, and any issues or conditions/restrictions the wastewater entity may impose on the project.</p>	Section 5.11.4.5, Page 5.11-23; Section 5.15-2.2, Pages 5.15-14 & 5.15-15; Section 5.15.2.3.2, Pages 5.15-15 & 5.15-16	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Water Resources**  
 Project Manager: Eric Veerkamp

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Revision No. 0 Date: 4-28-23  
 Technical Staff: James Ackerman  
 Technical Senior: Abdel-Karim Abulaban

<b>SITING REGULATIONS</b>	<b>INFORMATION</b>	<b>AFC PAGE NUMBER AND SECTION NUMBER</b>	<b>ADEQUATE YES OR NO</b>	<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
Appendix B (g) (14) (D)	Identify all project elements associated with stormwater drainage, including a description of the following:	Figure 2-6a, Page 2-35; Figure 2-6b, Page 2-36; Section 5.15.1, Pages 5.15-1 & 5.15-2; Figure 5.15-1, Page 5.15-3; Table 5.15-1, Page 5.14-4; Section 5.15.2.4, Pages 5.15-16 & 5.15-17; Table 5.15-5, Pages 5.15-22 thru 5.15-26; Section 5.15.5.1, Pages 5.15-27 thru 5.15-29	Yes	
Appendix B (g) (14) (D) (i)	Monthly and 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 5.15.1.3, Pages 5.15-1 & 5.15-2; Section 5.15.1.4, Page 5.15-2; Section 5.15.1.10, Page 5.15-13; Section 5.15.2, Page 5.15-13; Figure 5.15-1, Page 5.15-3; Table 5.15-1, Page 5.14-4; Section 5.15.2.4, Pages 5.15-16 & 5.15-17;	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;	Figure 2-6a, Page 2-35; Figure 2-6b, Page 2-36; Section 5.15.1.10, Page 5.15-13; Section 5.15.2, Page 5.15-13;	Yes	

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 Project Manager: **Eric Veerkamp**

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Appendix B (g) (14) (D) (iii)	All assumptions and calculations used to calculate runoff and to estimate changes in flow rates between pre- and post-construction; and	Figure 2-6a, Page 2-35; Figure 2-6b, Page 2-36	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.	Figure 2-6a, Page 2-35; Figure 2-6b, Page 2-36; Section 5.15.1.10, Page 5.15-15; Section 5.15.2, Page 5.15-15; Section 5.15.2.4, Pages 5.15-18 & 5.15-19; Table 5.15-5, Pages 5.15-22 thru 5.15-26; Section 5.15.5.1, Pages 5.15-27 thru 5.15-29	Yes	
Appendix B (g) (14) (E)	An impacts analysis of the proposed project on water resources and a discussion of conformance with water-related LORS and policy. This discussion shall include:	Section 5.15.2, Pages 5.15-13 thru 5.15-17; Section 5.15.3, Pages 5.15-17 thru 5.15-18; Section 5.15.4, Pages 5.15-18 thru 5.15-19	Yes	
Appendix B (g) (14) (E) (i)	The effects of project demand on the water supply and other users of this source, including, but not limited to, water availability for other uses during construction or after the power plant begins operation, consistency of the water use with applicable RWQCB basin plans or other applicable resource management plans, and any changes in	Section 5.15.2.1, Pages 5.15-13 & 5.15-14; Section 5.15.2.2, Page 5.15-14	Yes	

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	the physical or chemical conditions of existing water supplies as a result of water use by the power plant;			
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;	Section 5.15.2.3, Pages 5.15-14 thru 5.15-16;	Yes	
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 5.15.2.4.1, Pages 5.15-16 & 5.15-17	Yes	
Appendix B (g) (14) (iv)	If not using a zero liquid discharge project design for cooling and process waters, include the effects of the proposed wastewater disposal method on receiving waters, the feasibility of using pre-treatment techniques to reduce impacts, and beneficial uses of the receiving waters. Include an explanation why the zero liquid discharge process is "environmentally	Section 5.15.2.3, Pages 5.15-14 thru 5.15-16	Yes	

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	undesirable," or "economically unsound;"			
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 6.4.2, Page 6-3	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 5.15.1.8, Page 5.15-9; Figure 5.15-3a, Page 5.15-11; Figure 5.15-3b, Page 5.15-12	Yes	
Appendix B (g) (14) (vii)	All assumptions, evidence, references, and calculations used in the analysis to assess these effects.	Section 5.15.7, Pages 5.15-35 & 5.15-36; Figure 2-5, Page 2-23; Figure 2-6a, Page 2-35; Figure 2-6b, Page 2-36; Appendix 2C	Yes	
Appendix B (i) (1) (A)	Tables that 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	Section 5.15.5, Pages 5.15-19 thru 5.15-34; Table 5.15-5 Pages 5.15-20 thru 5.15-24	Yes	



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	each law or standard during both construction and operation of the facility is discussed; and			
Appendix B (i) (1) (B)	Tables that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	Section 5.15.6/Table 5.15-6, Pages 5.15-34 & 5.15-35	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 provide the name of the official who will serve as a contact person for Commission staff.	Section 5.15.6/Table 5.15-6, Pages 5.15-34 & 5.15-35	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 5.15.6/Table 5.15-6, Pages 5.15-34 & 5.15-35	Yes	

Adequacy Issue: Adequate **X** Inadequate \_\_\_\_\_  
 Technical Area: **Worker Safety**  
 Project Manager: Eric Veerkamp

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Revision No. 0 Date: 04/28/23  
 Technical Staff: Brett Fooks  
 Technical Senior: Brett Fooks

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Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Page 5.16-1, Section 5.16.1	Yes	
Appendix B (g) (11) (A)	A description of the safety training programs that will be required for construction and operation personnel.	Pages 5.16-6 – 5.16-12, Section 5.16.2.3.1	Yes	
Appendix B (g) (11) (B)	A complete description of the fuel handling system and the fire suppression system.	Pages 2-33 – 2-34, Section 2.3.3.6.8; Page 5.16-14, Section 5.16.2.4	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., section 1509);	Page 5.16-6, Section 5.16.2.3.1	Yes	
	• Fire Protection and Prevention Plan (8 Cal. Code Regs., section 1920);	Page 5.16-6, Section 5.16.2.3.1	Yes	
	• Personal Protective Equipment Program (8 Cal. Code Regs., sections 1514-1522)	Pages 5.16-6 – 5.16-7, Section 5.16.2.3.1	Yes	
	Operation Health and Safety Program: • Injury and Illness Prevention Program (8 Cal. Code Regs., section 3203);	Page 5.16-6, Section 5.16.2.3.1	Yes	
	• Fire Prevention Plan (8 Cal. Code Regs., section 3221);	Page 5.16-6, Section 5.16.2.3.1	Yes	

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 Technical Senior: Brett Fooks

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	<ul style="list-style-type: none"> <li>Emergency Action Plan (8 Cal. Code Regs., section 3220);</li> <li>Personal Protective Equipment Program (8 Cal. Code Regs., sections 3401-3411).</li> </ul>	Page 5.16-7, Section 5.16.2.3.1	Yes	
Appendix B (i) (1) (A)	Tables that identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Pages 5.16-6 – 5.16-7, Section 5.16.2.3.1	Yes	
Appendix B (i) (1) (B)	Tables that 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 that would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.	Page 5.16-21, Table 5.16-6	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 provide the name of the official who will serve as a contact person for Commission staff.	Page 5.16-21, Table 5.16-6	Yes	

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Project Manager:	<u>Eric Veerkamp</u>	Docket: <u>23-AFC-03</u>	Technical Senior: <u>Brett Fooks</u>	

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Appendix B (i) (3)	A schedule indicating when permits outside the authority of the Commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Page 5.16-20, Table 5.16-7	Yes	