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5.9 PUBLIC HEALTH AND SAFETY

5.9.1 Introduction

This Application for Certification (AFC) for the Rio Mesa Solar Electric Generating Facility (Rio Mesa SEGF or Project) has been prepared in accordance with the California Energy Commission's (CEC) Power Plant Site Certification Regulations (CEC-140-2008-001-REV1, current as of July 2008). In addition, this AFC includes elements necessary for the United States (U.S.) Bureau of Land Management (BLM) to permit the Project through the National Environmental Policy Act (NEPA). The "Applicant" for purposes of this AFC comprises Rio Mesa Solar I, LLC, Rio Mesa Solar II, LLC, and Rio Mesa Solar III, LLC, owners of the three separate solar plants and certain shared facilities being proposed. These three Delaware limited liability companies will hold equal one-third shares in the ownership of shared facilities and will separately own their respective plants. They are wholly owned by Rio Mesa Solar Holdings, LLC (a Delaware limited liability company) which is in turn wholly owned by BrightSource Energy, Inc. (BrightSource) a Delaware corporation and the ultimate parent company. The Applicant will use BrightSource's solar thermal technology for the Rio Mesa SEGF.

The proposed project site is situated on the Palo Verde Mesa in Riverside County, California, 13 miles southwest of the City of Blythe, and is located partially on private land and partially on public land administered by BLM. The project will include three solar concentrating thermal power plants and a shared common area to include shared systems. The first plant, a 250 megawatt (MW) (nominal) facility known as Rio Mesa I, will be constructed at the south end of the project and owned by Rio Mesa Solar I, LLC. The second plant, another 250 MW (nominal) facility known as Rio Mesa II, will be located in the central portion of the project site and owned by Rio Mesa Solar II, LLC. Rio Mesa III, a third 250 MW (nominal) facility, will be constructed in the northern portion of the project site and owned by Rio Mesa Solar III, LLC. These three plants will be connected via a common overhead 220 kilovolt (kV) generator tie-line (gen-tie line) to the Southern California Edison (SCE) Colorado River Substation (CRS) approximately 9.7 miles to the north.

Each plant will utilize a solar power boiler (referred to as a solar receiver steam generator or SRSG), located on top of a dedicated concrete tower, and solar field based on proprietary heliostat mirror technology developed by BrightSource. The reflecting area of an individual heliostat (which includes two mirrors) is about 19 square meters (205 square feet [sq. ft.]). The heliostat (mirror) fields will focus solar energy onto the SRSG which converts the solar energy to superheated steam. In each plant, a Rankine cycle non-reheat steam turbine receiving this superheated steam will be directly connected to a rotating generator that generates and pushes the electricity onto the transmission system steam. Each plant will generate electricity using solar energy as its primary fuel source. However, auxiliary boilers will be used to operate in parallel with the solar field during partial load conditions and occasionally in the afternoon when power is needed after the solar energy has diminished to a level that no longer will support solar generation of electricity**.** These auxiliary boilers will also assist with daily start-up of the power generation equipment and night time preservation.

This section presents the methodology and results of a human health risk assessment (HRA) performed to assess potential impacts and public exposure associated with airborne emissions from Rio Mesa SEGF construction and operation. This screening HRA has been performed in accordance with guidance

established by the California Office of Environmental Health Hazard Assessment (OEHHA)[1] and the California Air Resources Board (CARB)[2].

This subsection describes the applicable laws, ordinances, regulations, and standards (LORS) related to public health and safety, and the environmental setting. It provides an analysis of the Project impacts that could occur as a result of Project construction and operation. This subsection also presents protection and mitigation measures that will avoid, minimize, or compensate for adverse impacts, when required. A list of agency contacts and permits that will be required is included at the end of the subsection.

5.9.2 Laws, Ordinances, Regulations and Standards

An overview of the regulatory process for public health issues is presented in this section. Table 5.9-1 identifies the relevant LORS that affect public health and are applicable to this Project. The regulatory compliance associated with each of the LORS applicable to public health is also presented in this table.

Table 5.9-1
Laws, Ordinances Regulations and Standards (LORS)

LORS	Requirements/ Applicability	AFC Section Explaining Conformance
Federal		
National Environmental Policy Act (NEPA) of 1969	NEPA establishes a public, interdisciplinary framework for federal decision-making and ensures that Federal agencies take environmental factors into account when considering federal actions.	Section 5.9.2.1
Clean Air Act (CAA)	Requires large facilities to provide offsets and demonstrate that new emissions will not cause or contribute to violation of a federal ambient air quality standard	Section 5.9.2.1
Risk Management Plan (RMP) 40 Code of Federal Regulations (CFR) Part 68	Requires facilities storing or handling significant amounts of acutely hazardous materials to prepare and submit RMPs	Section 5.9.2.1
State		
Warren-Alquist State Energy Resources Conservation and Development Act, California Public Resources Code, §§ 25000, et seq.	Gives the California Energy Commission (CEC) licensing authority in lieu of state, regional, and local permits and requirements.	Section 5.9.2.2

[1] OEHHA. Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, August 2003.
[2] CARB, http://www.arb.ca.gov/ab2588/riskassess.htm.

Table 5.9-1
Laws, Ordinances Regulations and Standards (LORS)

LORS	Requirements/ Applicability	AFC Section Explaining Conformance
California Environmental Quality Act (CEQA) California Public Resources Code, Division 13, §§ 21000-21177, as amended 2010.	Requires all agencies of State government that regulate activities of private individuals, corporations, and public agencies, which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage.	Section 5.9.2.2
Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) California Health and Safety Code §§ 25249.5 et seq.	Activities resulting in doses or carcinogenic risks above specified thresholds require Proposition 65 exposure warnings.	Section 5.9.2.2
California Accidental Release Prevention Program California Health and Safety Code, Article 2, Chapter 6.95, §§ 25531 to 25541; Title 19 California Code of Regulations (CCR) Division 2, Chapter 4.5	Requires facilities storing or handling significant amounts of acutely hazardous materials to prepare and submit RMPs	Section 5.9.2.2
Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) California Health & Safety Code §§ 44360 to 44366	Requires preparation and biennial updating of facility emission inventory of hazardous substances; risk assessments.	Section 5.9.2.2
Local		
Mojave Desert Air Quality Management District (MDAQMD) Rule 1320, New Source Review For Toxic Air Contaminants	Requires the evaluation of the potential impact of toxic air contaminants (TACs) from new sources and modifications.	Section 5.9.2.3

AB 2588 = Air Toxics "Hot Spots" Information and Assessment Act
AFC = Application for Certification
CAA = Clean Air Act
CCR = California Code of Regulations
CEC = California Energy Commission
CEQA = California Environmental Quality Act
CFR = Code of Federal Regulations
LORS = Laws, ordinances, regulations and standards
MDAQMD = Mojave Desert Air Quality Management District
NEPA = National Environmental Policy Act
Proposition 65 = Safe Drinking Water and Toxic Enforcement Act of 1986
RMP = Risk Management Plan

5.9.2.1 Federal

National Environmental Policy Act of 1969

NEPA establishes a public, interdisciplinary framework for Federal agencies reviewing projects under their jurisdiction to consider environmental impacts. NEPA's basic policy is to assure that all branches of

government give proper consideration to the environment prior to undertaking any major federal action that significantly affects the environment.

The Bureau of Land Management (BLM), as lead Federal agency for the Project, is responsible for preparation of an Environmental Impact Statement (EIS) in compliance with NEPA to evaluate the environmental impacts of the portions of the Rio Mesa SEGF on federal lands. The Rio Mesa Solar III plant and the Project gen-tie line are located on lands administered and managed by the BLM. NEPA compliance is required for these portions of the Project through preparation of a Draft and Final EIS. BLM is also responsible for Native American consultation, including government to government consultation.

Clean Air Act

The Clean Air Act (CAA) requires large projects (new or modified sources at major stationary sources) to go through a federal permitting process that ensures that the project will not cause or contribute to a violation of a national ambient air quality standard. The emissions from the Project are below the thresholds of a federal permitting requirement.

Risk Management Plan, 40 Code of Federal Regulations (CFR) Part 68

Facilities storing or handling significant amounts of acutely hazardous materials must prepare and submit risk management plans. No regulated substance will be present in quantities exceeding the applicability thresholds; therefore, a Risk Management Plan (RMP) is not required.

5.9.2.2 State

Warren-Alquist Act

The California Public Resources Code (PRC) establishes the CEC as the decision-making authority over land use decisions and environmental determinations during the AFC process. This is in accordance with the Warren-Alquist Act, codified in §§ 25000 et seq. of the PRC. The CEC has exclusive jurisdiction over thermal power plant siting (50 MW or greater), including California Environmental Quality Act (CEQA) implementation. The Project will demonstrate conformity with state, regional, and local laws, including land use laws.

Under the Warren-Alquist Act, the CEC's licensing process is legally equivalent to CEQA and is guided by CEQA regulations.

California Environmental Quality Act

The CEC will be the lead agency enforcing CEQA for the Project. Under California law, the CEC is responsible for reviewing the AFCs filed for projects, and also has the role of lead agency for the environmental review of these projects under CEQA (PRC, §§ 25500 et seq; PRC, §§21000 et seq.). The CEC conducts this review in accordance with the administrative adjudication provisions of the Administrative Procedure Act (5 United States Code, §§ 500 et. seq.) and its own regulations governing site certification proceedings (CCR, Title 20, §§ 1701 et seq.). These provisions require the staff to

conduct an independent analysis of AFCs and prepare an independent assessment of a project's potential environmental impacts, feasible mitigation measures, and alternatives as part of this process.

Safe Drinking Water and Toxic Enforcement Act of 1986, California Health & Safety Code §§ 25249.5 et seq.

The Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) states that activities which expose the public to significant levels of chemicals that are carcinogenic or that can cause reproductive harm must provide warnings.

Based on an HRA that follows CARB / OEHHA guidelines, non-criteria pollutant emission rates and resulting doses and carcinogenic risks will not exceed thresholds that require Proposition 65 exposure warnings.

California Accidental Release Prevention Program, California Health & Safety Code, §§ 25531-25541 (Article 2, Chapter 6.95); California Code of Regulations (CCR) Title 19, Division 2, Chapter 4.5

According to the California Accidental Release Prevention Program, facilities storing or handling significant amounts of acutely hazardous materials are required to prepare and submit RMPs.

No regulated substance will be present in quantities exceeding the applicability thresholds. An RMP is not required.

Air Toxics "Hot Spots" Information and Assessment Act, California Health & Safety Code §§ 44360-44366

Under the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) facilities with emissions of toxic air contaminants are prioritized based on emissions. If the facility's priority score is high enough, the facility is required to prepare an HRA. High risk facilities may be required to provide notification to neighbors or to develop and implement a risk reduction plan.

Based on the emission estimates described in this report, Rio Mesa SEGF will not be a high-priority facility.

5.9.2.3 Local

Mojave Desert Air Quality Management District Rule 1320, New Source Review For Toxic Air Contaminants

The Mojave Desert Air Quality Management District (MDAQMD)'s Rule 1320 describes the requirements and standards for evaluating the potential impact of toxic air contaminants (TACs) from facilities that emit TACs. The rule requires a demonstration that a new or modified source will not exceed the applicable health risk thresholds.

Based on the results of the HRA described in this report, the Project will not exceed the applicable health risk thresholds.

5.9.3 Affected Environment

The CEC defines sensitive receptors as infants and children, the elderly, the chronically ill, and any other members of the general population who are more susceptible to the effects of exposure to environmental contaminants than the population at large. For the purposes of this analysis, sensitive receptors are defined as the locations occupied by groups of individuals who may be more susceptible to health risks from a chemical exposure: schools (public and private), day-care facilities, convalescent / nursing homes, retirement homes, health clinics, and hospitals. Because sensitive individuals may be located at any residential site, risk-based standards apply to existing residences and places where residences may be built without a change in zoning as well as sensitive receptors. If Project impacts are protective of sensitive individuals at the point of maximum impact, they are protective at all locations. Identification of sensitive receptors is done to ensure that notice of possible impacts is provided to the community.

No daycare, hospital, park, preschool, or school receptors were found within six miles of the project site.

The nearest residence[3] to the Rio Mesa SEGF property boundary is approximately 8,200 feet (1.55 miles) south of the Rio Mesa I solar array fence line (see Figure 5.7-1 in Section 5.7 Noise). The nearest residence to any power block equipment is approximately 13,120 feet (2.48 miles) east of the Rio Mesa III power block.

A variety of studies have been published regarding cancer and respiratory illnesses and diseases in Riverside County and in the broader Mojave Desert Air Basin (MDAB). In addition, the local public health department, Riverside County Health and Human Services, provides information on its website regarding public health issues for county residents (Riverside County, 2011). Asthma diagnosis rates in Riverside County are higher than average rates throughout the state for adults and children (Wolstein et al., 2010). The percentage of adults who have been diagnosed with asthma was 8.8 percent in 2005 and 2007, compared with 7.7 percent of the population statewide. Rates for children were 11.5 percent compared with 10.1 percent statewide for the same time period (Wolstein et al., 2010). Cancer death rates in Riverside County have declined slightly between 2003 and 2007, averaging 174 per 100,000. However, cancer death rates in the county remain slightly higher than the statewide average of 167 per 100,000 population (National Cancer Institute, 2011). According to this website, asthma is triggered by a variety of factors including dust, pollen, smoke, smog, and even cockroaches.

While there are no ambient monitors measuring TACs in the MDAB, there is an ambient monitor in Riverside County in the upwind South Coast Air Basin (SCAB).[4] Air quality and health risk data presented by CARB in the *California Almanac of Emissions and Air Quality – 2009 Edition* (CARB, n.d.) for Riverside County show that over the period 1990 through 2005, the average concentrations for the top ten TACs have been substantially reduced, and the associated health risks are showing a steady downward trend as well. CARB-estimated emissions inventory values for the top ten TACs for 2008 for Riverside County and ambient levels and associated potential risks for Riverside County in the upwind SCAB are presented in Table 5.9-2.

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[3] The buildings at this site are not currently inhabited. The Applicant assumes for the purpose of this analysis, that there could be a habitable dwelling at this location.

[4] Air pollution transport from the SCAB to the MDAB is discussed in Title 17 CCR §75000, Transport Identification.

Table 5.9-2
Top Ten Toxic Air Contaminants (TACs) Emitted in the Project Area

TAC	2008 Emissions, Riverside County (tons/year)	2007 Levels and Risks, Riverside County[a]	
		Annual Average Concentration (ppbv)	Potential Health Risk[b] (in 1 million)
Acetaldehyde	214	1.08	5
Benzene	302	0.404	37
1,3-Butadiene	77	0.08	30
Carbon tetrachloride	0	0.093 (2003)	24 (2003)
Chromium, hexavalent	0	0.23 ng/m^3	35
Para-Dichlorobenzene	63	0.15 (2006)	10 (2006)
Formaldehyde	502	2.88	21
Methylene chloride	234	0.19	<1
Perchloroethylene	216	0.035	1
Diesel Particulate Matter(PM)[c]	856	2.4 µg/m^3 (2000)	720 (2000)
Total Health Risk[d]	N/A	N/A	129

Source: CARB. The California Almanac of Emissions and Air Quality, 2009 Edition, http://www.arb.ca.gov/aqd/almanac/almanac09/pdf/appc09.pdf. Tables C-118, C-20, and C-25.

Notes:

[a] There are no ambient monitors in Mojave Desert Air Basin (MDAB) that measure air toxics, so data from the Rubidoux, Riverside County ambient monitor in the South Coast Air Basin (SCAB), which is upwind of the MDAB, is provided as a conservative estimate of background concentrations and health risks.

[b] Health Risk represents the number of excess cancer cases per million people based on a 70-year exposure to the annual average concentration. Health risk represents only the compounds listed in this table and only those with data for the year. There may be other significant compounds for which monitoring and health risk information is not available.

[c] The diesel particulate matter (PM) concentrations are estimates for the SCAB based on receptor modeling, and are available only for selected years.

[d] Total Health Risk shown excludes diesel PM because diesel PM concentrations are not available for 2007.

Abbreviations:

µg/m^3 = micrograms per cubic meter
ng/m^3 = nanograms per cubic meter
ppbv = parts per billion by volume
MDAB = Mojave Desert Air Basin
PM = Particulate Matter
SCAB = South Coast Air Basin
TAC = Toxic Air Contaminant

5.9.4 Environmental Analysis

This section discusses the sources and different kinds of air emissions associated with construction and operation of the Project (see Section 5.1, Air Quality), the methodology used in the HRA, and the results of the assessment of potential health risks from construction and operation of the Project.

Air will be the dominant pathway for potential public exposure to non-criteria pollutants released by the project. Emissions to the air will consist primarily of combustion by-products produced by the boilers and emergency engines. Potential health risks from combustion emissions will occur almost entirely by direct inhalation. To be conservative, additional pathways for dermal absorption, soil ingestion, and mother's milk ingestion were included in the health risk modeling; however, direct inhalation is the dominant

exposure pathway. Consistent with OEHHA guidance, because of the remote desert location of the proposed project, the produce and fish pathways were not evaluated.[5]

Combustion byproducts with established national and California ambient air quality standards (referred to as "criteria pollutants") are addressed in Section 5.1, Air Quality. Some discussion of the potential health risks associated with these substances is also presented in this section. Potential public exposure to accidental releases of hazardous materials on the project site during operation is addressed in Section 5.5, Hazardous Materials Handling. To ensure worker safety during operations and construction, safe work practices will be followed (see Section 5.16, Worker Safety).

Project emissions to the air will consist of combustion byproducts from the natural gas-fired boilers. Another source of combustion pollutants will be the routine testing and maintenance of the diesel-fueled emergency generators and the emergency fire water pump engine. Inhalation is the main pathway by which air pollutants can potentially cause public health impacts. Other pathways, including dermal absorption and ingestion of soil, homegrown vegetables, and mother's milk, are also evaluated for potential exposure. As discussed below, these health impacts will not be significant.

Construction emissions are presented in detail in Appendix 5.1F, along with an air dispersion analysis demonstrating that with the exception of the state 24-hour particulate matter (PM) measuring less than 10 microns in diameter (PM_{10}) standard (which is already being exceeded), ambient air quality standards will not be exceeded during Project construction. The dominant emission with potential health risk is diesel PM from combustion of diesel fuel in construction equipment (e.g., cranes, dozers, excavators, graders, front-end loaders, backhoes). A screening-type calculation in Section 5.4 of Appendix 5.1F demonstrates that the potential carcinogenic risk of diesel PM emissions during construction will be less than significant.

5.9.4.1 Significance Criteria

To evaluate potential health risks during Project operation, the measures of these risks are first described in terms of the types of public health effects and the significance criteria and thresholds for those effects.

Significance criteria exist for both cancer and non-cancer risks, and are discussed separately below.

Cancer Risk

Cancer risk is the probability or chance of contracting cancer over a human life span (assumed to be 70 years). Carcinogens are assumed to have no threshold below which there would be no human health impact. Any exposure to a carcinogen is assumed to have some probability of causing cancer: the lower the exposure, the lower the cancer risk (i.e., a linear, no-threshold model). Under state regulations, an incremental cancer risk greater than 10-in-one million due to a project is considered to be a significant impact on public health. The 10-in-one million risk level is also used by the AB 2588 program and Proposition 65 as the public notification level for air toxic emissions from existing sources.

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[5] "*The other exposure pathways (e.g., the ingestion of homegrown produce or fish) are evaluated on a site-by-site basis. If the resident can be exposed through an impacted exposure pathway, then it must be included in the HRA. However, if there were no vegetable gardens or fruit trees within the zone of impact for a facility, for example, then the produce pathways would not be evaluated.*" OEHHA 2003.

Animal studies or human epidemiological studies (often based on workplace exposures) are used to estimate the relationship between the dose of a particular carcinogen and the resulting excess cancer risk. The cancer potency factor for that carcinogen is the slope of that dose-response relationship. Cancer risk is estimated by multiplying the dose of a particular carcinogen times its cancer potency factor. The dominant exposure pathway is inhalation; however, additional exposure pathways are considered in this screening HRA.

Non-Cancer Health Impacts

Non-cancer health effects can be either long-term (chronic) or short-term (acute). In determining potential non-cancer health risks from air toxics, it is assumed there is a dose of the TAC below which there would be no impact on human health. The air concentration corresponding to this dose is called the Reference Exposure Level (REL). A non-cancer health impact is measured in terms of a health hazard quotient for each TAC, which is the modeled maximum annual concentration of each TAC divided by its REL. Health hazard quotients for TACs affecting the same target organ are typically summed, with the resulting totals expressed as health hazard indices for each organ system. A health hazard index of less than 1.0 is considered by the regulatory agencies to be a less-than-significant health risk. For this HRA, as a conservative assumption that will tend to over predict risk, all hazard quotients were summed regardless of target organ.

This methodology leads to a conservative (upper bound) assessment. RELs used in the hazard index calculations were those published in the CARB / OEHHA listing, updated as of February 14, 2011 (CARB, 2011) (see Appendix 5.1E of Section 5.1, Air Quality).

Chronic toxicity is defined as adverse health effects from prolonged chemical exposure, caused by chemicals accumulating in the body. Because chemical accumulation to toxic levels typically occurs slowly, symptoms of chronic effects usually do not appear until long after exposure commences. The lowest no-effect chronic exposure level for a non-carcinogenic air toxic is the chronic REL. Below this threshold, the body is capable of eliminating or detoxifying the chemical rapidly enough to prevent its accumulation. The chronic health hazard index was calculated as the sum of the chronic health hazard quotients, each of which is calculated as the chronic TAC annual concentration divided by the chronic REL of the TAC.

Acute toxicity is defined as adverse health effects caused by a brief chemical exposure of no more than 24 hours. For most chemicals, the air concentration required to produce acute effects is higher than the level required to produce chronic effects because the duration of exposure is shorter. Because acute toxicity is predominantly manifested in the upper respiratory system at threshold exposures, all acute health hazard quotients are typically summed to calculate the acute health hazard index. This method leads to an upper bound assessment.

The maximum one- and eight-hour average concentrations of each TAC with acute health effects is divided by the specific TAC's acute one- and eight-hour REL, respectively, to obtain the one- and eight-hour health hazard quotient for health effects caused by relatively high, short-term exposure to air toxics. RELs used in the hazard index calculations were those published in the CARB / OEHHA listing, updated February 14, 2011 (CARB, 2011). New RELs initially adopted by OEHHA on December 19,

2008, included 8-hour average RELs for acetaldehyde, acrolein and formaldehyde.[6] However, because these 8-hour RELs are not yet included in CARB's Hotspots Analysis and Reporting Program (HARP) software, they have been evaluated manually in this screening HRA.

Construction Impacts

Construction of the Rio Mesa SEGF, from site preparation and grading to commercial operation, is expected to take place from the fourth quarter of 2013 to the first quarter of 2016 (36 months total).

No significant public health effects are expected during construction. Construction practices that incorporate safety measures and reflect compliance with applicable LORS will be followed. In addition, mitigation measures to reduce air emissions from construction impacts will be implemented as described in Appendix 5.1F.

Temporary air emissions from construction are presented in detail in Appendix 5.1F, along with a criteria pollutant air dispersion analysis that demonstrates ambient air quality standards will not be exceeded by construction of the project with the exception of PM_{10} for which the standard is already exceeded. The dominant emission with potential health risk during construction is diesel PM from combustion of diesel fuel in construction equipment (e.g., cranes, dozers, excavators, graders, front-end loaders, backhoes). Diesel PM emissions from on-site construction are summarized in Table 5.9-3.

Table 5.9-3
Maximum Onsite Diesel Particulate Matter (PM) Emissions During Construction

Emitting Activity	Pounds per Day	Tons per Year
Construction Equipment	11.2	1.3

The detailed HRA calculations in Appendix 5.1E demonstrate that the potential cancer risk of diesel PM emissions during project construction will not exceed the significance threshold of 10 in one million. This HRA was performed in accordance with OEHHA (2003) guidance, which requires adjusting the 70-year lifetime exposure risk for an exposure period of nine years, despite the actual construction timeline of 36 months. The resulting maximum off-property cancer risk would be approximately 2.4 in one million.

Ambient air modeling for PM_{10}, carbon monoxide (CO), sulfur dioxide (SO_2), and nitrogen dioxide (NO_2) was performed as described in Section 5.1.5.5 and Appendix 5.1D. Construction-related criteria pollutant emission impacts are temporary and localized, resulting in no long-term significant health impacts to the public.

Small quantities of hazardous waste may be generated during construction of the Project. Hazardous waste management plans will be in place so the potential for public exposure is minimal. Refer to Section 5.14, Waste Management, for more information. No acutely hazardous materials will be used or

[6] Eight-hour RELs were also adopted for arsenic, manganese, and mercury. However, those chemicals are not emitted in any significant amount from natural gas-fired gas boilers and Diesel engines, so are not included in this screening HRA.

stored onsite during construction (see Section 5.5, Hazardous Materials Handling). To ensure worker safety during construction, safe work practices will be followed (see Section 5.16, Worker Safety).

Operations Impacts

Potential human health impacts associated with the Project result from exposure to air emissions from operation of the natural gas-fired boilers and diesel-fueled emergency equipment. The non-criteria pollutants emitted from the project include certain volatile organic compounds and polycyclic aromatic hydrocarbons (PAHs) from the combustion of natural gas. These pollutants are listed in Table 5.9-4, and the detailed emission summaries and calculations are presented in Appendix 5.1B.

Table 5.9-4
Air Emitted Pollutants from the Project

Criteria Pollutants	Non-criteria Pollutants
Carbon monoxide	Acetaldehyde
Oxides of nitrogen	Acrolein
Particulate matter	Benzene
Oxides of sulfur	Ethylbenzene
Volatile organic compounds	Formaldehyde
	Hexane
	Naphthalene
	PAHs
	Propylene
	Toluene
	Xylene
	Diesel Particulate Matter

Emissions of criteria pollutants will not cause or contribute significantly to violations of the national or California ambient air quality standards as discussed in Section 5.1, Air Quality.

Air dispersion modeling results (see Section 5.1.5.5) show that emissions will not result in ambient concentrations of criteria pollutants that exceed the ambient air quality standards, with the exception of the state PM_{10} standard. For PM_{10}, existing 24-hour average PM_{10} background concentrations already exceed ambient standards Modeling results indicate the Project would not add a significant contribution of PM_{10}. Air quality standards are intended to protect the general public with a wide margin of safety. Therefore, the Project will not have a significant impact on public health from emissions of criteria pollutants.

The HRA, which assesses potential impacts associated with emissions of non-criteria pollutants to the air from the Project, is presented in Appendix 5.1E. The HRA was prepared using the latest version (1.4d) of the CARB's HARP model (CARB, 2009), the CARB February 2011 health database (CARB, 2011), and the OEHHA Hot Spots Program Guidance Manual (OEHHA, 2003).

5.9.4.2 Public Health Impact Study Methods

Emissions of non-criteria pollutants from the project were analyzed using emission factors previously approved by CARB and the United States Environmental Protection Agency (EPA). Air dispersion modeling combined the emissions with site-specific terrain and meteorological conditions to analyze short-term and long-term arithmetic mean concentrations in air for use in the HRA. The EPA-recommended atmospheric dispersion modeling system (AERMOD) was used along with five years (2005–2009) of compatible meteorological data from the Blythe Airport meteorological station. Because HARP is built on a previous EPA-approved air dispersion model, Industrial Source Complex Short Term, Version 3 (ISCST3), the HARP On-Ramp (CARB, n.d.) was used to integrate the air dispersion modeling output from the AERMOD with the risk calculations in the HARP risk module.

Risk Analysis Method

The criteria pollutant modeling analysis was performed using the AERMOD model, the five-year meteorological data set described above, specific receptor grids, and the stack parameters for the combustion equipment (see Section 5.1, Air Quality). The highest annual, eight-hour and one-hour average concentrations were used to determine cancer risk and chronic health hazard index, and acute eight-hour and one-hour health hazard indices, as appropriate. Health risks potentially associated with the estimated concentrations of pollutants in air were characterized in terms of potential lifetime cancer risk (for carcinogenic substances), or comparison with RELs for non-cancer health effects (for non-carcinogenic substances).

Health risks were evaluated for a hypothetical Maximum Exposed Individual (MEI) located at the Point of Maximum Impact (PMI) as well as risks to the MEI at residential locations (MEIR). The cancer risk to the MEI at the PMI is referred to as the Maximum Incremental Cancer Risk (MICR). Human health risks associated with emissions from the project are unlikely to be higher at any other location than at the PMI. If there is no significant impact associated with concentrations in air at the PMI location, it is assumed to be unlikely that there would be significant impacts in any other location. Health risks were also evaluated at the nearest residence. The PMI (and thus the MICR) is not necessarily associated with actual exposure because in many cases the PMI is in an uninhabited area. Therefore, the MICR is generally higher than the cancer risk to the nearest resident. Both risks are based on a 24 hours per day, 3650 days per year, 70-year lifetime exposure.

Health risks are also assessed for the hypothetical Maximally Exposed Individual Worker, or MEIW, at the PMI. This assessment reflects potential workplace risks, which have a shorter duration than residential risks. Workplace risks reflect 8 hour per day, 245 days per year, 40 year exposure.

Health risks potentially associated with concentrations of carcinogenic pollutants in air were calculated as estimated excess lifetime cancer risks. The total cancer risk at any specific location is found by summing the contributions from each carcinogen.

The inhalation cancer potency factors and RELs used to characterize health risks associated with modeled concentrations in air are taken from the *Consolidated Table of OEHHA / CARB Approved Risk Assessment Health Values* (CARB, 2011) and are presented in Table 5.9-5.

Table 5.9-5
Toxicity Values Used to Characterize Health Risks

Toxic Air Contaminant	Inhalation Cancer Potency Factor $(mg/kg\text{-}d)^{-1}$	Chronic REL($\mu g/m^3$)	Acute REL ($\mu g/m^3$)
Acetaldehyde	0.010	140	470 (1-hr) 300 (8-hr)
Acrolein	—	0.35	2.5 (1-hr) 0.7 (8-hr)
Ammonia	—	200	3,200
Benzene	0.10	60	1,300
1,3-Butadiene	0.60	20	—
Ethylbenzene	0.0087	2,000	—
Formaldehyde	0.021	9	55 (1-hr) 9 (8-hr)
Hexane	—	7,000	—
Naphthalene	0.12	9.0	—
Polycyclic Aeromatic Hydrocarbons (PAHs) (as BaP)	3.9	—	—
Propylene	—	3,000	—
Toluene	—	300	37,000
Xylene	—	700	22,000
Diesel particulate matter	1.1	5	—

Source: CARB, 2011.
$\mu g/m^3$ = micrograms per cubic meter
mg/kg-d = milligrams per kilogram per day
BaP = Benzo(a)pyrene
PAH = Polycyclic Aeromatic Hyrdocarbons

5.9.4.3 Characterization of Risks from Toxic Air Pollutants

The estimated potential maximum cancer risks for the MICR and the MEIW at the location of maximum impact (PMI), and for the MEIR, are shown in Table 5.9-6. The maximum carcinogenic risk is below the MDAQMD's one in-one million threshold at a residential receptor triggering additional analysis and well below the CEC's 10-in-one million threshold of significance.

Cancer risks potentially associated with the project were also assessed in terms of cancer burden. Cancer burden is a hypothetical upper-bound estimate of the additional number of cancer cases that could be associated with emissions from the project. Cancer burden is calculated as the maximum product of any potential carcinogenic risk greater than 1 in one million and the number of individuals at that risk level. Because the MICR is above the 1 in one million threshold in an area that extends only approximately 50

meters south of the common area fenceline and because there are no residential receptors in this small area, the potential cancer burden is zero.

Table 5.9-6
Summary of Estimated Maximum Potential Health Risks

Receptor	Carcinogenic Risk[a] (per million)	Cancer Burden	Acute Health Hazard Index		Chronic Health Hazard Index
			1-hour	8-hour	
Maximum Incremental Cancer Risk (MICR) and Health Hazard Indexes (HHIs) at Point of Maximum Impact (PMI)	1.38 in one million	0	0.003	0.002	0.0007
MICR and HHIs at Residential Receptors	0.10 in one million	0	0.0003	0.00008	0.00005
Maximally Exposed Individual Worker (MEIW) at PMI	0.21 in one million	0	n/a[b]	n/a[b]	n/a[c]
Significance Level	10	1.0	1.0	1.0	1.0

[a] Derived (OEHHA) Method used to determine significance of modeled risks.

[b] Acute analysis is always done as a single point exposure and is not affected by the type of analysis or exposure duration.

[c] The worker is assumed to be exposed at the work location for 8 hours per day, instead of 24; for 245 days per year, instead of 365; and for 40 years, instead of 70. Therefore, a 70-year-based chronic health hazard index is not applicable to a worker.

HHI = Health Hazard Index
MEIW = Maximally Exposed Individual Worker
MICR = Maximum Incremental Cancer Risk
PMI = Point of Maximum Impact

The maximum potential acute non-cancer health hazard indexes for one-hour and eight-hour exposures associated with concentrations in air are shown in Table 5.9-6. As indicated in Table 5.9-6, the acute non-cancer health hazard indexes for all target organs fall well below 1.0, the threshold of significance. Further description of the methodology used to calculate health risks associated with emissions to the air is presented in Appendix 5.1E.

Similarly, the maximum potential chronic non-cancer health hazard index associated with concentrations in air is also shown in Table 5.9-6. The chronic non-cancer health hazard index also falls below 1.0, the threshold of significance.

The estimates of cancer and non-cancer risks associated with chronic or acute exposures thresholds are used for regulating emissions of toxic air contaminants to the air. Historically, exposure to any level of a carcinogen has been considered to have a finite risk of inducing cancer. There is no threshold for carcinogenicity. Because risks at low levels of exposure cannot be quantified directly by either animal or epidemiological studies, mathematical models have estimated such risks by extrapolation from high to low doses. This modeling procedure is designed to provide a highly conservative estimate of cancer risks based on the most sensitive species of laboratory animal for extrapolation to humans (i.e., the assumption being that humans are as sensitive as the most sensitive animal species). Therefore, the risk is not likely to

be higher than risks estimated using inhalation cancer potency factors and is most likely lower, and could even be zero (EPA, 1991).

The analysis of potential cancer risk described in this section employs methods and assumptions generally applied by regulatory agencies for this purpose. Given the importance of assuring public health, this analysis uses highly conservative methods and assumptions, meaning they tend to over-predict the potential for adverse effects. Conservative methodology and assumptions include the following:

- The analysis includes representative weather data over a period of five years to ensure that the least favorable conditions producing the highest ground-level concentration of project emissions are included. The analysis then assumes that these worst-case weather conditions, which in reality occurred only once in five years, will occur continuously for 70 years.
- The Project is assumed to operate at hourly, daily, and annual emission conditions that produce the highest ground-level concentrations.
- The location of the highest ground-level concentration of project emissions is identified and the analysis then assumes that a sensitive individual resides at this location 24 hours a day, 7 days a week over the entire 70-year period, even though these assumptions are physically impossible.

Taken together, these methods and assumptions present a theoretical scenario that is more adverse to human health than conditions that exist in the real world. For example, if the worst-case weather conditions could occur only on a winter evening but the worst-case emission rates could occur only on a summer afternoon, the analysis nonetheless assumes that these events occur at the same time. The point of using these conservative assumptions is to overstate the potential impacts of the Project, so as to be assured that in the worst possible case that the project will not significantly impact public health. No one individual will experience exposures as great as those assumed for this analysis. By determining that even this highly overstated exposure will not be significant, the analysis provides a high degree of confidence that the much lower exposures that actual persons will experience will not result in any significant increase in cancer risk. In short, the analysis ensures that there will not be any significant public health impacts at any location, under any weather condition, under any operating condition.

5.9.4.4 Hazardous Materials

Hazardous materials will be used and stored at the facility. The hazardous materials stored in significant quantities onsite and descriptions of their uses are presented in Section 5.5, Hazardous Materials Handling. Use of chemicals at the project site will be in accordance with standard practices for storage and management of hazardous materials. Normal use of hazardous materials, therefore, will not result in significant impacts on public health. Best management practices will be used and mitigation measures will be in place to prevent releases. However, if an accidental release migrated offsite, potential impacts to the public could result.

The California Accidental Release Prevention (CalARP) Program regulations and 40 CFR 40 Part 68 under the Clean Air Act establish emergency response planning requirements for acutely hazardous materials. These regulations require, among other things, preparation of a RMP, which is a comprehensive program to identify hazards and predict the areas that may be affected by a release of a program-listed hazardous material.

An RMP is not required for this facility. No regulated substance will be present in quantities exceeding the applicability thresholds.

5.9.4.5 Operation Odors

The fuels used at the Rio Mesa SEGF will include natural gas and very low sulfur diesel fuel. Combustion contaminants will not be present at concentrations that could produce a significant odor.

5.9.4.6 Electromagnetic Field Exposure

The project will include additional onsite electric power-handling transformers and associated equipment, which are discussed in more detail in Section 3.0. Based on findings of the National Institute of Environmental Health Sciences (NIEHS, 1999), electromagnetic field exposures from the electric power generating and handling equipment and associated transmission lines would not result in a significant impact on public health. The NIEHS report to the United States Congress found that "the probability that electromagnetic field (EMF) exposure is truly a health hazard is currently small. The weak epidemiological associations and lack of any laboratory support for these associations provide only marginal scientific support that exposure to this agent is causing any degree of harm." (NIEHS, 1999).

5.9.4.7 Summary of Impacts

Results from the HRA based on emissions modeling indicate that there will be no significant incremental public health risks from construction or operation of the Rio Mesa SEGF. Results from criteria pollutant modeling for routine operations indicate that potential ambient concentrations of NO_2, CO, SO_2, and PM_{10} would not exceed ambient air quality standards, with the exception of the state 24-hour average PM_{10} standard. For this pollutant, existing background concentrations already exceed applicable standards, while the project would not add a significant contribution. The ambient air quality standards protect public health with a margin of safety for the most sensitive subpopulations (Section 5.1).

Beneficial aspects of the project regarding protection of public health include the following:

- Use of solar technology to generate electricity (with minimal use of fossil fuel); the project therefore has the potential to displace fossil fuel generation to the west of Riverside County that currently contributes adversely to air quality in the MDAB.
- Use of clean-burning, low sulfur content natural gas for support equipment, which reduces SO_2 emissions and subsequent sulfate fine particulate generation.
- Optimized stack height to reduce ground-level concentrations of exhaust pollutants below public health-related significance thresholds.

These features will ensure that the public health impacts of the project will be avoided or minimized.

Rio Mesa SEGF will not be a major stationary source under MDAQMD New Source Review (NSR) regulations because maximum facility emissions will be below 100 tons per year (tpy) for CO, 25 tpy for nitrous oxides (NO_x), sulfur oxides (SO_x), and volatile organic compounds, and 15 tpy for PM_{10}. The project will not be a major source under the federal Prevention of Deterioration (PSD) program because it

will have the potential to emit less than 100 tpy of each PSD criteria pollutant, and less than 100,000 tons per year of greenhouse gases (GHG).

5.9.5 Cumulative Effects

An analysis of potential cumulative air quality impacts that may result from the project and other past, present, and reasonably foreseeable projects is required by CEQA. A letter submitted to the MDAQMD requested the following information regarding other projects that qualify for review under the cumulative air quality impact analysis:[7]

- projects located within a six-mile radius of the project site; and
- projects issued a new Authority to Construct permit after January 1, 2010.

MDAQMD has responded that there are only two projects (Blythe Energy Project, Blythe Energy Project Phase II) located within six miles of the Project.

A procedure for performing the cumulative criteria pollutant impacts analysis is discussed in Appendix 5.1G. This cumulative criteria pollutant impact analysis determined that the Rio Mesa SEGF, in combination with other nearby, foreseeable projects, will not cause a combined air quality impact that exceeds significance thresholds.

In contrast with the approach used to estimate impacts for criteria pollutants, the significance thresholds developed for TACs are set sufficiently stringent so as to preclude the potential for any significant cumulative impacts. Thus, a separate cumulative impacts analysis for TACs is not required.

5.9.6 Mitigation Measures

The project has been designed to minimize TAC emissions and impacts. No additional mitigation measures are needed for the project TAC emissions because the potential air quality and public health impacts are less than significant.

5.9.7 Agencies and Agency Contacts

Table 5.9-7 provides contact information for agencies involved with public health.

Table 5.9-7
Agency Contacts

Issue	Agency	Contact
Public exposure to air pollutants	United States Environmental Protection Agency Region 9	Gerardo Rios EPA Region 9 75 Hawthorne Street, San Francisco, CA 94105 (415) 972-3974

[7] Copies of the correspondence are provided in Appendix 5.1G.

Table 5.9-7
Agency Contacts

Issue	Agency	Contact
Right-of-Way Grant	Bureau of Land Management	Cedric Perry Bureau of Land Management California Desert District 22835 Calle San Juan De Los Lagos, Moreno Valley, CA 92553 (951) 697-5388
Application for Certification	California Energy Commission	Pierre Martinez California Energy Commission 1516 Ninth Street, Sacramento, CA 95814-5512 (916) 651-3765
Public exposure to air pollutants	California Air Resources Board	Mike Tollstrup Project Assessment Branch California Air Resources Board 1001 I Street, Sacramento, CA 95812 (916) 323-8473
Public exposure to air pollutants	Mojave Desert Air Quality Management District	Eldon Heaston, Executive Director Mojave Desert Air Quality Management District 14306 Park Avenue, Victorville, CA 92392 (760) 245-1661
Public exposure to chemicals known to cause cancer or reproductive toxicity	California Environmental Protection Agency, Office of Environmental Health and Hazard Assessment	Cynthia Oshita or Susan Long Office of Environmental Health Hazard Assessment 1001 I Street, Sacramento, CA 95814 (916) 445-6900
Public exposure to accidental releases of hazardous materials	EPA Region 9	Deborah Jordan EPA Region 9 75 Hawthorne Street, San Francisco, CA 94105 (916) 947-4157
Public exposure to accidental releases of hazardous materials	California Office of Emergency Services	Moustafa Abou-Taleb Governor's Office of Emergency Services 3650 Schriever Avenue, Mather, CA 95655 (916) 845-8741
Public exposure to accidental releases of hazardous materials	Riverside County Sheriff's Department	Captain James Navarro 260 N. Spring Street, Blythe, CA 92225 (760) 921-7900

5.9.8 Permits and Permit Schedule

Agency required permits related to public health are listed in Table 5.9-8, and include the MDAQMD Final Determination of Compliance (FDOC). Upon approval of the Project by the CEC, the MDAQMD FDOC will act as an Authority to Construct. A Permit to Operate will be issued by the MDAQMD after construction and commencement of operation. These requirements are discussed in detail in Section 2, Air Quality.

Table 5.9-8
Applicable Permits

Permit	Agency Contact	Schedule
Determination of Compliance/ Authority to Construct/ Permit to Operate	Eldon Heaston, Executive Director Mojave Desert Air Quality Management District	District will issue a Preliminary Determination of Compliance within 180 days after issuing the Application Completeness Determination Letter.

5.9.9 References

California Air Resources Board (CARB). n.d. *California Almanac of Emissions and Air Quality – 2009 Edition.* Available at http://www.arb.ca.gov/aqd/almanac/almanac09/almanac09.htm

California Air Resources Board (CARB). n.d. HARP Model, Version 1.4d, http://www.arb.ca.gov/toxics/harp/harp.htm.\

California Air Resources Board (CARB). 2011. Consolidated Table of OEHHA/CARB Approved Risk Assessment Health Values. Updated February 14. Available at: http://arbis.arb.ca.gov/toxics/healthval/contable.pdf.

California Air Resources Board (CARB). 2009. HARP On-Ramp Version 1, accessed at http://www.arb.ca.gov/toxics/harp/downloads.htm.

National Cancer Institute. 2011. State Cancer Profiles, "Death Rate/Trend Comparison by Cancer, death years through 2007: California Counties vs California, All Cancer Sites, All Races, Both Sexes." Available at: http://statecancerprofiles.cancer.gov/cgi-bin/ratetrendbycancer/data.pl?001&0&06&6&1&0&3

National Institute of Environmental Health Sciences (NIEHS). 1999. Environmental Health Institute report concludes evidence is 'weak' that EMFs cause cancer. Press release. National Institute of Environmental Health Sciences, National Institutes of Health.

Office of Environmental Health Hazard Assessment (OEHHA). 2003. Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, California Environmental Protection Agency. August.

Riverside County Department of Public Health. 2011. http://www.rivcoph.org/

U.S. Environmental Protection Agency (EPA). 1991. Risk Assessment for Toxic Air Pollutants: A Citizen's Guide. EPA 450/3-90-024. March 1991. http://www.epa.gov/ttn/atw/3_90_024.html

Wolstein, Joelle, et al. 2010. "Income Disparities in Asthma Burden and Care in California," December. Accessed at http://www.healthpolicy.ucla.edu/pubs/files/asthma-burden-report-1210.pdf.

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 0 Date ____

Technical Area: **Public Health** Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

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 5.9.3 (pages 5.16-6 to 5.16-7) Section 5.9.4 (pages 5.16-7 to 5.16-17) Section 5.9.6 (page 5.9-17) Appendices 5.1E and 5.1F		
Appendix B (g) (9) (A)	An assessment of the potential risk to human health from the project's hazardous air emissions using the Air Resources Board Hotspots Analysis and Reporting Program (HARP) (HSC §§44360-44366) or its successor and Approved Risk Assessment Health Values. These values should include the cancer potency values and noncancer reference exposure levels approved by the Office of Environmental Health Hazard Assessment (OEHHA Guidelines, Cal-EPA 2005).	Sections 5.9.4.3 and 5.9.4.4 (pages 5.16-13 to 5.9-16) Appendix 5.1E		
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.	Appendices 5.1D and 5.1E and enclosed CD with air quality modeling files		
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 5.9.3 (pages 5.9-7 to 5.9-17)		
Appendix B (g) (9) (D)	A map showing sensitive receptors within the area exposed to the substances identified in subsection (g)(9)(A).	Section 5.9.3 (pages 5.9-6 to 5.16-7) (no sensitive receptors located within 6-miles)		
Appendix B (g) (9) (E)	For purposes of this section, the following definitions apply:	---		

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 0 Date ____

Technical Area: **Public Health** Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (9) (E) (i)	A sensitive receptor refers to infants and children, the elderly, and the chronically ill, and any other member of the general population who is more susceptible to the effects of the exposure than the population at large;	---		
Appendix B (g) (9) (E) (ii)	An acute exposure is one which occurs over a time period of less than or equal to one (1) hour; and	---		
Appendix B (g) (9) (E) (iii)	A chronic exposure is one which is greater than twelve (12) percent of a lifetime of seventy (70) years.	---		
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 5.9.2 (pages 5.9-2 to 5.9-5) Table 5.9-1		
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 5.9.2 (pages 5.9-2 to 5.9-5) Table 5.9-1		

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 0 Date ____

Technical Area: **Public Health** Project: ____ Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 5.9.7 (pages 5.9-17 to 5.9-18) Table 5.9-7		
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 5.9.8 (page 5.9-19)		