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5.5 HAZARDOUS MATERIALS HANDLING

5.5.1 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 megawatt (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 megawatt (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 subsection describes the applicable laws, ordinances, regulations, and standards (LORS) related to hazardous materials handling activities related to the project. 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.

5.5.2 Laws, Ordinances, Regulations, and Standards

The LORS applicable to the Rio Mesa SEGF are discussed in this section in the context of hazardous materials handling. Construction and operation of the Rio Mesa SEGF will be in accordance with all applicable LORS pertaining to hazardous materials.

Federal, state, and local laws govern the storage and use of hazardous materials at the Rio Mesa SEGF site. Applicable laws and regulations address the use and storage of hazardous materials to protect the environment from contamination, and to protect facility workers and the surrounding community from exposure to hazardous materials. The applicable LORS related to hazardous materials handling are summarized in Table 5.5-1.

Table 5.5-1
Laws, Ordinances, Regulations and Standards (LORS)

LORS	Applicability	Conformance (AFC Section)
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.	5.5.2.1
Superfund Amendments and Reauthorization Act (SARA) of 1986, 42 United States Code (USC) Title III	Contains the Emergency Planning and Community Right to Know Act (EPCRA) (also known as SARA Title III)	5.5.2.1
Clean Air Act (CAA) 42 U.S.C. 7401-7671	Establishes a nationwide emergency planning and response program and imposes reporting requirements for business that store, handle, or produce significant quantities of extremely hazardous materials.	5.5.2.1
CAA Risk Management Plan (RMP) 42 USC § 112(r)	Requires states to implement a comprehensive system to inform local agencies and the public when a significant quantity of such materials is stored or handled at a facility.	5.5.2.1
Clean Water Act (CWA) 33 U.S.C. §§ 26 *et seq.*	Prevents the discharge or threat of discharge of oil into navigable waters or adjoining shorelines. Requires a written Spill Prevention, Control and Countermeasure (SPCC) Plan to be prepared for facilities that store certain quantities of oil that could leak into navigable waters.	5.5.2.1
Chemical Facility Anti-Terrorism Standards (CFATS) 6 CFR Part 27	The CFATS regulation of the United States Department of Homeland Security (DHS) that requires facilities that store hazardous materials above certain thresholds to submit information to the DHS to determine vulnerability and implementation of security measures.	5.5.2.1

Table 5.5-1
Laws, Ordinances, Regulations and Standards (LORS)

LORS	Applicability	Conformance (AFC Section)
U.S. Department of Transportation (DOT) Regulations, 49 CFR 171-177	Governs the transportation of hazardous materials, including the marking of the transportation vehicles.	5.5.2.1
Pipeline Safety Laws 49 USC 6010 *et seq.* Transportation of Natural and Other Gas by Pipeline 49 CFR 192	Specifies natural gas pipeline construction safety and transportation requirements.	5.5.2.1
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.	5.5.2.2
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.	5.5.2.2
California Health and Safety Code §§ 25500, *et seq.* (Waters Bill)	Requires preparation of a Hazardous Materials Business Plan (HMBP) if hazardous materials are handled or stored in excess of the threshold quantity (TQ).	5.5.2.2
California Health and Safety Code §§ 25531, *et seq.* (La Follette Bill)	Requires registration of the facility with local authorities and preparation of an RMP if hazardous materials stored or handled in excess of TQ.	5.5.2.2
California Health and Safety Code, §§ 25531 to 25543.4	CalARP requires the Preparation of a RMP, OCA, and submittal to the CUPA for approval.	5.5.2.2
California Health and Safety Code §§ 25270- 25270.13 (Aboveground Petroleum Storage Act)	Requires preparation of an SPCC plan if oil is stored in a single aboveground storage tank with a capacity greater than 660 gallons or if the total petroleum storage (including ASTs, oil-filled equipment, and drums) is greater than 1,320 gallons. The facility will have petroleum in excess of the aggregate volume of 1,320 gallons.	5.5.2.2
California Health and Safety Code §§ 25249.5- 25249.13 (Safe Drinking Water and Toxics Enforcement Act) (Proposition 65)	Requires warning to persons exposed to a list of carcinogenic and reproductive toxins and protection of drinking water from these chemicals.	5.5.2.2
8 CCR § 5189	Facility owners are required to implement Safety Management Plans to ensure safe handling of hazardous materials.	5.5.2.2

Table 5.5-1
Laws, Ordinances, Regulations and Standards (LORS)

LORS	Applicability	Conformance (AFC Section)
California Building Code	Requirements regarding the storage and handling of hazardous materials.	5.5.2.2
California Government Code § 65850.2	Restricts issuance of commercial operating date until the facility has submitted an RMP.	5.5.2.2
Local		
Riverside County DEH, HMMD, Certified Unified Program Agency (CUPA)	Requires new/modified businesses to complete a hazardous materials business before final plan/permit approval.	5.5.2.3
Riverside County Fire Department (RCFD) Fire Code Standards (Ordinance 787)	Adopts the 2010 edition of the California Fire Code.	5.5.2.4

AFC = Application for Certification
CAA = Clean Air Act
CalARP = California Accidental Release Program
CCR = California Code of Regulations
CEQA = CEQA
CFR = Code of Federal Regulations
CFATS = Chemical Facility Anti-Terrorism Standards
CUPA = Certified Unified Program Agency
CWA = Clean Water Act
DOT = United States Department of Transportation
EPCRA = Emergency Planning and Community Right to Know Act
RCFD = Riverside County Fire Department
RMP = Risk Management Plan
SARA = Superfund Amendments and Reauthorization Act
TQ = Threshold Quantity
USC = United States Code

5.5.2.1 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 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.

The President's Council on Environmental Quality (CEQ) developed guidelines and procedures to assist Federal agencies with NEPA procedures so that environmental justice concerns are effectively identified and addressed. This includes guidelines for public participation, alternatives, and mitigation.

Superfund Amendments and Reauthorization Act of 1968, Title III §§ 302, 304, 311 and 313

The Superfund Amendments and Reauthorization Act of 1968 (SARA) Title III established a nationwide emergency planning and response program and imposed reporting requirements for businesses that store, handle, or produce significant quantities of extremely hazardous materials. SARA requires states to implement a comprehensive system to inform local agencies and the public when a significant quantity of such materials is stored or handled at a facility.

Clean Air Act of 1990, 42 U.S.C. 7401-7671

The Clean Air Act (CAA) as amended in 1990 also requires states to implement a comprehensive system to inform local agencies and the public when a significant quantity of such materials is stored or handled at a facility (see 40 USC, §68.115). It establishes a nationwide emergency planning and response program and imposes reporting requirements for business that store, handle, or produce significant quantities of extremely hazardous materials. The requirements of this implemented system are reflected in the California Health and Safety Code, §§25531 *et seq.*

CAA Risk Management Plan, 42 USC § 112(r)

This section of the CAA determines that facilities storing or handling significant amounts of acutely hazardous materials are required to prepare and submit Risk Management Plans (RMPs). As no regulated substance will be present in quantities exceeding the applicability thresholds, a RMP is not required.

Clean Water Act, 33 U.S.C. §§ 26 et seq

The Clean Water Act (CWA), 33 U.S.C. §§ 26 *et seq*, aims to prevent the discharge or threat of discharge of oil into navigable water or adjoining shorelines. The regulations require that a written Spill Prevention Control and Countermeasures (SPCC) Plan be prepared for facilities that store or treat oil that could leak into navigable waters. The Rio Mesa SEGF will prepare and implement an SPCC Plan prior to initiating facility operations.

Chemical Facility Anti-Terrorism Standards, 6 CFR 27

The energy sector is one of 14 areas of critical infrastructure listed by the U.S. Department of Homeland Security (DHS). In April 2007, DHS published an Interim Final Rule in the Federal Register, known as the Chemical Facility Anti-Terrorism Standards (CFATS), requiring facilities that use or store certain hazardous materials to conduct vulnerability assessments and implement certain specified measures. This rule was implemented with the publication of Appendix 5.11C4A, which lists those certain chemicals and their thresholds. The Rio Mesa SEGF will not be required to submit a "Top Screen" assessment to the DHS; however, the Project will develop and implement security measures as described in the North America Electric Reliability Council (NERC) document titled Security Guidelines for Electricity Security.

United States Department of Transportation Regulations, 49 CFR 171-177

The United States Department of Transportation (DOT) regulations (49 CFR Parts 171-1770 govern the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.

Pipeline Safety Laws, 49 USC §§ 6010 et. seq. and 49 CFR 190-192

The federal safety and operating requirements for natural gas pipelines are contained in 49 U.S.C. §§ 6010 *et seq.* and Title 49 CFR, Parts 190 through 192. Part 190 outlines pipeline safety procedures; Part 191 requires a written report for any reportable incident; and Part 192 specifies minimum safety requirements for pipelines. The safety requirements for pipeline construction vary according to population density and land uses that characterize the area in which a project is located. Construction activities related to the metering station and metering sets for the natural gas line that will be connected to the Project site will be performed in accordance with these requirements.

5.5.2.2 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.

The CEC considers the Staff Assessment(s), along with the environmental analysis provided by the Applicant, as well as input from interested local, regional, state, and Federal agencies, intervenors, and interested Native American tribes, in developing its final decision on whether to issue a license for a proposed project. The CEC has a certified regulatory program under CEQA that exempts the agency from having to draft an Environmental Impact Report (EIR) and, instead, requires a Final Staff Assessment (FSA), evidentiary hearings, and a decision based on the hearing record, which includes the staff's and other parties' assessments.

California Health and Safety Code § 25500

California Health and Safety Code § 25500 requires companies that handle hazardous materials in sufficient quantities to develop a Hazardous Material Business Plan (HMBP). The HMBP includes basic

information on the location, type, quantity and health risks associated with hazardous materials handled, stored, used, or disposed of that could be accidentally released into the environment. It also includes a plan for training new personnel and annual training of all personnel in the safety procedures to follow in the event of a release of hazardous materials. It also includes an Emergency Response Plan and identifies the business representative able to assist emergency personnel in the event of a release. Rio Mesa SEGF will develop and implement a HMBP prior to construction and operation of the facility.

California Health and Safety Code § 25531

California Health and Safety Code § 25531 directs facility owners storing or handling acutely hazardous materials in reportable quantities to develop an RMP and submit it to appropriate local authorities, the United States EPA, and the designated local administering agency for review and approval. The RMP includes an evaluation of the potential impacts associated with an accidental release; the likelihood of an accidental release occurring; the magnitude of potential human exposure; any pre-existing evaluations or studies of the material; the likelihood of the substance being handled in the manner indicated; and the accident history of the material. This new, recently developed program supersedes the California Risk Management and Prevention Plan and is known as the California Accidental Release Program (CalARP). The Rio Mesa SEGF will not store listed hazardous materials above thresholds that would require the development of an RMP.

8 CCR § 5189

The CCR, title 8, §5189 requires facility owners to develop and implement effective Safety Management Plans to ensure that large quantities of hazardous materials are handled safely. While such requirements primarily provide for the protection of workers, they also indirectly improve public safety and are coordinated with the RMP process.

California Building Code

The California Building Code (CBC) contains requirements regarding the storage and handling of hazardous materials. The Chief Building Official must inspect and verify compliance with these requirements prior to issuance of an occupancy permit.

California Government Code § 65850.2

California Government Code, §65850.2 states that a city or county will not issue a final certificate of occupancy unless there is verification that the applicant has met the applicable requirements of Health and Safety Code, §25531 and requirements, if any, for a permit from the air pollution control district.

Aboveground Petroleum Storage Act

California Health and Safety Code §§25270 to 25270.13 is intended to ensure compliance with the federal CWA. The law applies if a facility has an AST with a capacity greater than 660 gallons or a combined AST capacity greater than 1,320 gallons and if there is a reasonable possibility that the tank(s) may discharge oil in "harmful quantities" into navigable waters or adjoining shore lands. If a facility falls under these criteria, it must prepare an SPCC Plan. The law does not cover AST design, engineering, construction, or other technical requirements, which are usually determined by local fire departments.

Although there are no navigable waterways or shore lands near the project site, the Project will store greater than 10,000 gallons of petroleum products onsite, and the facility will be required to prepare an SPCC plan.

Safe Drinking Water and Toxics Enforcement Act (Proposition 65)

Proposition 65 requires the state to identify chemicals that cause cancer and reproductive toxicity, contains requirements for informing the public of the presence of these chemicals, and prohibits discharge of the chemicals into sources of drinking water. Lists of the chemicals of concern are published and updated periodically by CA OEHHA. Some of the chemicals to be used at for the Project will be on the Proposition 65 list.

5.5.2.3 Local

The designated Certified Unified Program Agency (CUPA) for the Rio Mesa SEGF site is the Riverside County Department of Environmental Health (DEH), Hazardous Materials Management Division (HMMD). This agency is responsible for: 1) the implementation of the HMBP and Emergency Response Plan, and 2) the storage of hazardous materials in underground storage tanks and cleanup of petroleum releases. The Riverside County HMMD will be contacted in the event of a release of hazardous wastes or materials to the environment. In addition, the facility Emergency Response Plan will include a list of other Federal, State, and local agencies that may need to be contacted in case of an emergency or release of hazardous materials or wastes.

5.5.2.4 Industry Standards

Riverside County Ordinance No. 787.6 adopts the 2010 California Fire Code to regulate and govern the safeguarding of life and property from fire and explosion hazards (arising from the storage, handling, and use of hazardous substances, materials and devices) and from conditions potentially hazardous to life or property in the occupancy of building and premises in the County of Riverside.

5.5.3 Affected Environment

A Phase I Environmental Site Assessment (ESA) of the proposed project site was prepared in accordance with American Society for Testing and Materials (ASTM) Practice E 1527-05. The objective of the Phase I ESA was to identify Recognized Environmental Conditions (RECs) that may exist at the project site. A site reconnaissance was conducted on December 20, 2010. Based on a review of historical data, the project site has remained undeveloped, vacant land. The December 2010 reconnaissance found evidence of illegal dumping on the Project site consisting of several automobile bodies discarded along existing roads and washes and multiple small piles of rusty cans, broken glass, tires and metal and debris. No oil staining was observed on the soil in these locations. Additionally, the rusty shells of several drums were observed in the dumping areas. No unusual staining was observed associated with the drums. More recent debris including the piles of tires, fire rings, miscellaneous metal debris including an abandoned metal tank, were observed on the southeastern border of the site near areas where there are many off-road vehicle tracks. The Phase I ESA also identified the potential for Unexploded Ordnance (UXO) or Munitions and Explosives of Concern (MEC), as much of the desert had been used for military training exercises during World War II. No RECs due to current or historical on-site operations were identified at the project site. An environmental database review was conducted to identify sites within a one-mile

radius of the Project for potential environmental concerns. No surrounding properties of potential concern were noted. The results of the Phase I ESA are included as Appendix 5.11C4A of this AFC. Sensitive receptors were not identified within a 6-mile radius from the boundary of the property (see Section 5.9, Public Heath). Therefore a release of hazardous materials from the Project would not impact sensitive receptors.

5.5.4 Environmental Analysis

The criteria used to evaluate whether the hazardous materials handling associated with the Project would cause significant effects are taken from the Environmental Checklist Form (Appendix G) of CEQA Guidelines and the standards and thresholds adopted by the agencies with jurisdiction over this Application for Certification (AFC). Accordingly, the Project would result in a significant effect if it would do the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Omit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school;
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, create a significant hazard to the public or environment; and/or
- Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

The following sections describe hazardous materials handling that will be performed during construction and operation of the Project.

5.5.4.1 Construction Phase

The hazardous materials to be used during Project construction include diesel fuel, oil, lubricants, and compressed gasses. No acutely hazardous materials would be used or stored on site during construction. A summary of the hazardous materials to be used and stored during construction is provided in Table 5.5-2 and Table 5.5-3. These tables identify, respectively, the hazardous materials to be used during construction based on the Title 22 CCR characteristics criteria and based on the properties of the substances themselves.

Table 5.5-2
Hazardous Materials Usage and Storage During Construction Based on Title 22 Hazard Characterization

Material	Hazard Characteristics[1]	Purpose	Storage Location	Maximum Stored	Storage Type
Acetylene	Ignitability	Welding	Hazardous Material Storage Area	25,000 ft^3	Cylinder
Diesel Fuel	Ignitability	Emergency generator	Hazardous Material Storage Area	9,500 gal	Tank
Oxygen – Gaseous	Ignitability	Welding operation	Hazardous Material Storage Area	80,000 ft^3	Cylinder
Paint, solvents, adhesives, cleaners, sealants, lubricants	Toxicity	Construction maintenance, Painting,	Hazardous Material Storage Area	500 gal	Can/Small containers
Sodium Hydroxide	Corrosivity	Spill neutralization	Hazardous Material Storage Area	150 gal	Carboy

Source: BrightSource Engineers and Bechtel Power Engineers, 2011
Notes:
[1] Hazardous characteristics identified per Title 22 California Code of Regulations § 66261.20 et seq. for hazardous wastes
gal = gallons (s)
ft^3 = cubic feet

Table 5.5-3
Hazardous Materials Usage and Storage During Construction Based on Material Properties

Material	Hazard Characteristics[1]	Purpose	Storage Location	Maximum Stored	Storage Type
Hydraulic Oil	Mildly toxic	Miscellaneous equipment control oil	Within equipment	1,000 gal	Construction Equipment
Lubricating Oil	Mildly toxic	Lubricating equipment parts	Hazardous Material Storage Area	22,000 gal	Drums and equipment

Source: BrightSource Engineers and Bechtel Power Engineers, 2011
Notes:
[1] Hazardous characteristics based on material properties and potential health hazards provided by those properties
gal = gallons (s)
ft^3 = cubic feet

In general, construction contractors will utilize fuels, lubricating oils, compressed gases, and solvents and cleaners during construction of the Rio Mesa SEGF. The construction contractor will be responsible for verifying that the use, storage, and handling of these materials are in compliance with applicable federal, state, and local LORS, including licensing, personnel training, accumulation limits, disposal, reporting requirements, and recordkeeping.

The following site services will also be provided, either under a separate contract or through incorporation into individual construction subcontracts for Rio Mesa SEGF:

- environmental health and safety training;
- site security;
- site first aid;
- furnishing and servicing of sanitary facilities;
- trash collection and disposal; and
- disposal of hazardous materials and waste in accordance with local, state, and federal regulations.

Small quantities of fuel oil and grease may leak from construction equipment during construction activities. Such materials generally have a low relative risk to human health and the environment. If there is a large spill, the spill area will be bermed or controlled as quickly as is practical to minimize the footprint of the spill. Potentially contaminated soil and materials produced during cleanup of a spill will be placed into drums for off-site disposal as a hazardous waste at a permitted hazardous waste transfer, storage, and disposal facility. If a spill or leak into the environment involves hazardous materials equal to or greater than the specific reportable quantity, federal, state, and local reporting requirements will be adhered to during cleanup activities. In particular, the Riverside County DEH, HMMD will be notified. The Riverside County Fire Department (RCFD) will be called in the event of a fire or injury. Contractors will be expected to implement best management practices (BMPs) consistent with hazardous materials storage, handling, emergency spill response, and reporting specified in the HMBP. The Project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment will not omit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school and is not included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5. The Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Impacts associated with the use of hazardous materials during the construction phase would not be significant.

5.5.4.2 Operations Phase

The hazardous materials to be used or stored on site during operation of the facility are listed in Table 5.5-4, and Table 5.5-5. These two tables list the materials to be used during regular project operation that can be characterized as hazardous based on Title 22 criteria and based on the properties of the materials, respectively.

Table 5.5-4
Hazardous Materials Usage and Storage During Operation Based on Title 22 Hazard Characterization

Material	Hazard Characteristics[1]	Purpose	Storage Location	Maximum Stored[2]	Storage Type
Nalco Elimin-OX (Oxygen scavenger)	Ignitability	Oxygen scavenger for boiler chemistry control	Power Block: Containers near power tower	1,800 gal	300 gallon totes
Aqueous Ammonia (19% concentration)	Reactivity, toxicity	pH control for boiler chemistry	Power Block: Containers near power tower	1,800 gal	300 gallon totes
Sulfuric Acid 93% (66° Baumé)	Corrosivity, reactivity, toxicity	pH control	Power Block: Containers in water treatment building	2,700 gal	300 gallon totes
Sulfuric Acid (Batteries)	Corrosivity, reactivity, toxicity	Electrical power	Power Block: Contained within the main electrical room and the power tower Common Area: Contained within main electrical room	14,000 gal	Batteries
Sodium Hydroxide (50% concentration)	Corrosivity, reactivity, toxicity	pH control	Power Block: Containers near wet-surface air cooler (WSAC) and WWTS Common Area: Containers in Water Treatment Building	2,400 gal	300 gallon totes
Diesel Fuel (No. 2)	Ignitability	Emergency generator	Power Block: Near fire pump, beneath emergency diesel generator, and adjacent to the mirror wash machines water filling station Common Area: beneath emergency diesel generator and near fire pump	46,000 gal	Aboveground storage tanks and in equipment
Paint, solvents, adhesives, cleaners, sealants, lubricants	Toxicity	Equipment Maintenance,	Power Block: Maintenance Shop	500 gal	1 gal and 5 gal containers

Source: BrightSource Engineers, 2011
Notes:
[1] Hazardous characteristics identified per Title 22, California Code of Regulations, § 66261.20 et seq., for hazardous wastes
[2] All numbers are approximate
gal = gallons (s)
WSAC = Wet-Surface Air Cooler
WWTS = Wastewater Treatment System

Table 5.5-5
Hazardous Materials Usage and Storage during Operation Based on Material Properties

Material	Hazard Characteristics[1]	Purpose	Storage Location	Maximum Stored[2]	Storage Type
Cleaning Chemicals and Detergents	Toxicity, irritant	Periodic cleaning of steam turbine	Power Block: Maintenance shop	3,000 gal	Misc. Manufacturer's containers
Nalco 5200M (Anti-scalant	Irritant, mildly toxic	Wastewater treatment anti-scalant	Power Block: Containers near WWTS Common Area: Containers in Water Treatment Building	1,500 gal	300 gal totes
Nalco 3DT-187 (Corrosion Inhibitor)	Irritant, mildly toxic	Wet-Surface Air Cooler (WSAC) Corrosion inhibitor	Power Block: Containers near WSAC Common Area: Containers in Water Treatment Building (storage)	2,100 gal	300 gallon totes
Nalco 73801WR (Dispersant)	Irritant, mildly toxic	WSAC Dispersant	Power Block: Containers near WSAC Common Area: Containers in Water Treatment Building (storage)	2,100 gal	300 gallon tote
Nalco TRAC107 (Corrosion Inhibitor)	Irritant, mildly toxic	Closed cooling water Corrosion Inhibitor	Power Block: Contained within CCW system Common Area: Containers in water treatment building (storage)	500 gal	55 drums
Avista Vitec (Scale Inhibitor)	Irritant, mildly toxic	Reverse osmosis scale inhibitor	Common Area containers in Water Treatment Building	900 gal	300 gallon totes
Sodium Bisulfite	Irritant, mildly toxic	Dechlorination	Common Area containers in Water Treatment Building	900 gal	300 gallon totes
Nalco 7468 (Anti-foaming agent)	Irritant, mildly toxic	Wastewater treatment system anti-foaming agent	Power Block: Containers near WWTS Common Area: Containers in Water Treatment Building	1,500 gal	300 gallon totes

Table 5.5-5
Hazardous Materials Usage and Storage during Operation Based on Material Properties

Material	Hazard Characteristics[1]	Purpose	Storage Location	Maximum Stored[2]	Storage Type
Lubricating Oil	Mildly toxic	Miscellaneous equipment lubrication	Power Block: Contained within equipment, drums during replacement Common Area: Contained within equipment, spare capacity stored in Maintenance shop	30,000 gal	Contained within equipment and misc. drums during replacement
Mineral Transformer Insulating Oil	Mildly toxic	Provides overheating and insulation protection for transformers	Power Block: Contained within transformers Common Area: Contained within transformers	112,000 gal	Transformers
Hydraulic Oil	Mildly toxic	Miscellaneous equipment control oil	Power Block: Contained within equipment, drums during replacement Common Area; Contained within equipment, spare capacity stored in Warehouse	6,000 gal	Contained within equipment and misc. drums during replacement
Sodium Hypochlorite 12% (trade) solution	Irritant, Corrosivity, reactivity	Biocide	Power Block: Containers in water treatment building Common Area: Potable water treatment area	2,400 gal	300 gal totes

Source: BrightSource Engineers, 2011.
Notes:
1 Hazardous characteristics based on material properties and potential health hazards provided by those properties
2 All numbers are approximate
cf = cubic feet
gal = gallons (s)
WSAC = Wet-Surface Air Cooler
WWTS = Wastewater Treatment System

Fire and Explosion Risks

Natural Gas

Natural gas will be used as a fuel for natural gas-fired auxiliary boilers to extend the available power used to provide supplemental steam to the turbine-generator. Natural gas poses a fire and/or explosion risk as a result of its flammability. Although natural gas may be used in significant quantities at the facility, it is and will be continuously delivered to the project site through a pressurized natural gas line. This delivery system precludes the need for any on-site natural gas storage. The risk of a fire and/or explosion will be minimized through adherence to applicable codes and design features, including isolation valves, and the continued implementation of effective safety management practices. The federal safety and operating

requirements for natural gas lines are contained in the federal Pipeline Safety Laws as explained in Section 5.5.2. The safety requirements for pipeline construction vary according to population density and land uses that characterize the surrounding area. The pipeline for the project site will be designed to meet all necessary LORS governing the construction, maintenance, and safety of natural gas pipelines.

Diesel Fuel

Diesel fuel will be stored in 8,000-gallon above-ground storage tanks located in the refueling area of each plant. The tanks will be located away from electrical lines and other potential ignition sources. The fuel tanks will be designed with integral secondary containment and firewalls. The tanks will be installed in such a way that the exterior surface, including the bottom of the tank and connection piping, can be directly monitored and directly viewed. The tanks will be protected from vehicles and other equipment by bollards that will be placed around the tanks. The bollards will be constructed of steel piping filled with concrete and set in concrete or an equivalent material.

Transformer Oil / Lubricating Oil

Transformer oil will not be stored on the project site, except in the transformers. Generator step-up transformers and other oil-filled transformers will be contained and provided with a deluge system. The only risk of fire associated with this material would be during the unlikely event of a catastrophic transformer failure. This type of event would require an emergency response from the RCFD, Hazardous Materials (HazMat) Team. The potential impacts associated with the use of transformer oil at the project site would not be significant because of the small amounts being used.

Lubricating oil will be used inside rotating equipment. The potential impacts associated with the use of lubricating oil at the project site would not be significant because of the small amounts being used.

Acutely Hazardous Materials/Regulated Substances

Title 8 CCR § 5189, Appendix A lists acutely hazardous materials (substances that present a potential for a catastrophic event at or above the threshold quantity [TQ]). The chemicals proposed for use at the project site are not considered "Regulated Substances" subject to the requirements of the CalARP Program and process safety management. Therefore the project would not be required to model potential consequences of accidental releases that could result in off-site impacts. No special regulatory requirements or management practices related to the storage or use of the substances that will be present at the project site (e.g., ammonia) are anticipated.

Other Hazardous Materials

No adverse environmental impacts related to other hazardous materials used at the Rio Mesa SEGF facility are anticipated. Only small quantities will be used during operation of the facility. The Rio Mesa SEGF will maintain and implement an HMBP that outlines hazardous materials handling, storage, spill response, and reporting procedures will be prepared and submitted 60 days prior to receiving any hazardous material on the site for commissioning or operations. The Rio Mesa SEGF will also implement BMPs consistent with the hazardous materials handling, emergency spill response, and reporting as specified in the HMBP. If a spill or release of hazardous materials should occur during operation of the facility, the spill area will be bermed or controlled as quickly as practical to minimize the footprint of the

spill. Contaminated soil generated during cleanup of a spill will be placed into drums for off-site disposal as a hazardous waste at a permitted hazardous waste, transfer, storage, and disposal facility. If a spill or leak into the environment involves hazardous materials equal to or greater than the specific reportable quantity, federal, state, and local reporting requirements will be adhered to during cleanup and disposal activities. Long-term or cumulative impacts will be avoided by managing any accidental leaks or spills of these materials according to applicable regulations.

Material Safety Data Sheets

Material Data Safety Sheets (MSDSs) for the hazardous materials will be kept on site as required in the guidance document titled *OSHA Hazard Communication Rules and Regulations.*

Transportation of Hazardous Materials

Project operations will require regular transportation of hazardous materials to the Rio Mesa SEGF site. Transportation of hazardous materials will comply with all California Department of Transportation (Caltrans), EPA, California Department of Toxic Substances Control (DTSC), California Highway Patrol (CHP), and California State Fire Marshal regulations.

Site Security

The use of hazardous materials requires that special site security measures be developed and implemented to prevent unauthorized access. In addition to standard business security practices, a site-specific Security Plan will be prepared for the Project.

The Project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and would not handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. The Project site is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, create a significant hazard to the public or environment. The Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. As a result of the implementation of the above procedures, impacts associated with the use of hazardous materials during the construction phase will not be significant.

5.5.4.3 Abandonment / Closure

Facility closure will be outlined in the Rio Mesa SEGF Closure Plan which will be prepared prior to initiation of facility operations. Closure of the facility may be temporary or permanent. In the event of a premature or unexpected cessation of operations, the facility Closure Plan will ensure that: 1) materials maintained on site which might present risks to the public health and safety and the environment are properly stored and disposed of, and 2) the site is secured to prevent unauthorized access and risk to public health and safety. Closure procedures will be established to comply with all federal, state, and local requirements related to hazardous materials and hazardous waste. The plan will include monitoring the hazardous materials and waste vessels and receptacles, safe cessation of processes using hazardous materials or storing hazardous wastes, and inspection of secondary containment structures.

Temporary Closure

The Rio Mesa SEGF Closure Plan will outline measures for temporary closure that will enable the removal all hazardous materials and waste from the facility or that will provide 24-hour security monitoring at the project site. The CEC will be notified prior to closure. Temporary contingency closure measures will be prepared as part of the facility closure plan prior to startup of the facility and will be developed consistent with BMPs, the HMBP, and the SPCC Plan. The measures will be in accordance will all applicable LORS and will be implemented to protect health and safety and the environment.

Permanent Closure

Permanent closure is defined as a cessation in operations with no intent to restart operations due to facility age, damage to the project that is beyond repair, adverse economic conditions, or other significant reasons. The planned permanent closure of the Rio Mesa SEGF will be incorporated into the facility Closure Plan and evaluated at the end of the facility's economic operation. The facility Closure Plan will outline measures for permanent closure to secure materials and waste, including the inventory, management, and disposal of materials and wastes, and permanent closure of permitted hazardous materials and waste storage units.

The permanent closure measures will be prepared as part of the facility Closure Plan prior to startup of the facility and will be developed to be consistent with BMPs, the HMBP, and the SPCC Plan. The measures will be in accordance will all applicable LORS and will be implemented to protect health and safety and the environment.

5.5.5 Cumulative Effects

Compliance with existing LORS that address the handling of hazardous materials will ensure that the Rio Mesa SEGF will not create a significant hazard to the public or the environment related to the handling or accidental release of hazardous materials. Past, present, and reasonably foreseeable future projects are also subject to existing LORS that address the handling and accidental release of hazardous materials. Therefore, existing LORS will ensure that the incremental effects of the Project, when considered together with the effects of past, present, and reasonably foreseeable projects, will not create a cumulatively considerable hazard to the public or environment related to the handling or accidental release of hazardous materials.

5.5.6 Mitigation Measures

The procedures described in Sections 5.5.6.1 and 5.5.6.2 provide appropriate mitigation and enable Rio Mesa SEGF to utilize hazardous materials in compliance with all applicable LORS and in a manner that would not cause significant environmental impacts. The following sections provide additional information regarding mitigation measures during construction and operation of the Project.

5.5.6.1 Construction Phase

During construction, hazardous materials stored on site would be limited to fuel (such as diesel) and small quantities of lubricating oils, paint, coatings, adhesives, welding gases, and other cleaners. These materials would be stored in a locked utility shed or in a secured fenced area with secondary containment.

It is anticipated that fuels, lubricants, and other various fluids needed for operation of construction equipment will be transported to the construction site on an as-needed basis by equipment service trucks. Personnel working on the project during construction will be trained in handling hazardous materials and will be alerted to dangers associated with these materials. An on-site Site Safety Supervisor will be designated to implement health and safety guidelines and contact emergency response personnel and the local hospital, if necessary.

Construction contractors for Rio Mesa SEGF will be required to develop standard operating procedures for servicing and fueling construction equipment. These procedures will, at a minimum, include the following, which are incorporated herein as proposed Mitigation Measures.

HAZMAT-1

The measures described below will be implemented related to fueling and maintenance of vehicles and equipment.

- No smoking, open flames, or welding will be allowed in the fueling/services areas.
- Servicing and fueling of vehicles and equipment will occur only in designated areas.
- Vehicle engines will be shut down during refueling.
- Fueling service and maintenance will be conducted only by authorized, trained personnel.
- Refueling will be conducted only with approved pumps, hoses, and nozzles.
- All disconnected hoses will be handled in a manner to prevent residual fuel and fluids from being released into the environment.
- Catch pans will be placed under equipment/hose connections or other means of secondary containment will be implemented to catch potential spills during fueling and servicing.
- Service trucks will be provided with fire extinguishers and spill containment equipment, such as absorbents, shovels, and containers.
- Service trucks will not remain on the job site after fueling and service are complete.

HAZMAT-2

Spills that occur during vehicle maintenance will be cleaned up immediately, and contaminated soil will be containerized and sent for subsequent evaluation and off-site disposal. A log of all spills and cleanup actions will be maintained. Small spills will be contained and cleaned up immediately by trained, on-site personnel. Large spills will be reported by using emergency phone numbers to contact off-site cleanup contractors. If a spill involves quantities of hazardous materials equal to or greater than the specified reporting quantity, all federal, state, and local reporting requirements will be followed. In the event of a fire or injury, the RCFD will be contacted.

HAZMAT-3

Emergency telephone numbers will be available on site for the fire department, police, local hospitals, ambulance service(s), and environmental regulatory agencies.

HAZMAT-4

Containers used to store hazardous materials will be properly labeled and kept in good condition. It is anticipated that these standard operating procedures will minimize the potential for incidents involving hazardous materials during construction.

HAZMAT-5

The Applicant will prepare a site-specific Security Plan for the construction phase and submit it to the CPM for review and approval. The Applicant will implement site security measures addressing physical site security and hazardous materials storage.

The Construction Security Plan will include the following:

- Site fencing and security gates
- Alarms (fire and other)
- Evacuation procedures
- Protocol for contacting law enforcement in the event of a security breach
- The use of security guards or a passive security system
- Site access procedures for employees, contractors, vendors, and visitors
- Instructions to follow in conducting site personnel background checks, including employee and routine on-site contractors, that are consistent with state and federal laws regarding security and privacy

5.5.6.2 Operational Phase

A listing of anticipated hazardous materials to be used on site during operation can be found in Table 5.5-4 and Table 5.5-5. General mitigation measures are detailed in the following sections for containerized and bulk hazardous materials.

HAZMAT-6

As required by the Occupational Health and Safety Administration (OHSA) Hazard *Communication Rules and Regulations*, the applicant or general contractor will keep all necessary MSDSs on site for the hazardous materials used in project construction and operation.

HAZMAT-7

Personnel working with chemicals will be trained in proper handling and emergency response to chemical spills or accidental releases. Additionally, designated personnel will be trained as first responders to hazardous materials incidents.

Safety equipment will be provided for use as required during chemical containment and cleanup activities and will include safety showers and eyewash stations. Service water hose connections will be provided near chemical usage and storage areas to allow flushing of chemical spills, if needed.

HAZMAT-8

The following programs will be implemented to address potential issues associated with hazardous materials storage locations: emergency response procedures; employee training requirements; hazard recognition fire safety; first-aid and emergency medical procedures; hazardous materials release containment and control procedures; hazard communication training; personnel protective equipment; and release reporting requirements. These programs will include the HMBP, SPCC Plan, worker safety program, fire response program, plant safety program, and facility standard operating procedures. The HMBP will include procedures on hazardous materials handling, use, and storage; emergency response; spill prevention and control; training; recordkeeping; and reporting.

HAZMAT-9

The Applicant will prepare a site-specific Security Plan for the operational phase and submit it to the CPM for review and approval. The Applicant will implement site security measures addressing physical site security and hazardous materials storage.

The Operation Security Plan will include the following:

- Site fencing and security gates
- Alarms (fire and other)
- Evacuation procedures
- Protocol for contacting law enforcement in the event of a security breach
- The use of security guards or a passive security system
- Site access procedures for employees, contractors, vendors, and visitors
- Instructions to follow in conducting site personnel background checks, including employee and routine on-site contractors, that are consistent with state and federal laws regarding security and privacy

5.5.6.1 Monitoring Program

Environmental impacts related to hazardous material handling caused by construction and operations of the Project are expected to be minimal. Therefore, extensive monitoring programs are not required. Monitoring of hazardous materials handling during construction and operation of the Project will be conducted in accordance with monitoring and reporting requirements in the appropriate permits that will be obtained for construction and operation.

5.5.7 Involved Agencies and Agency Contacts

A number of Federal and State agencies regulate hazardous materials, including the EPA at the federal level and the California Environmental Protection Agency (Cal/EPA) at the state level. However, local agencies are the primary enforcers of hazardous materials laws. For the Rio Mesa SEGF, the local agency is the Riverside County DEH, HMMD and the contacts for this agency are shown in Table 5.5-6.

Table 5.5-6
Agency Contacts

Agency	Contact	Address	Telephone
Riverside County Department of Environmental Health (DEH), Hazardous Materials Management Division (HMMD) Certified Unified Program Agency (CUPA)	Hazardous Materials Supervisor-Nick Crain	47-950 Arabia Street Indio, California 92503	(760) 863-8976
Riverside County Fire Department (RCFD)	Chief John R. Hawkins	RCFD 12300 Market Street Suite 150 Riverside, California 92501	(951) 955-4777
RCFD	Staff	Blythe Fire Station #43 140 Barnard Street Blythe, California 92225	(760) 921-7822
BLM	Cedric Perry	Bureau of Land Management 22835 Calle San Juan de Los Lagos Moreno Valley, CA 92553-9046 cperry@blm.gov	(951) 697-5200
CEC	Pierre Martinez Siting Project Manager	1516 Ninth Street Sacramento, CA 95814 PMartine@energy.state.ca.us	(916) 651-3765

Source: Riverside County DEH, HMMD, 2011; RCFD, 2011.
Notes:
CUPA = Riverside County Certified Unified Program Agency
DEH = Riverside County Department of Environmental Health
HMMD = Riverside County Hazardous Materials Management Division
LORS = Laws, Ordinances, Regulations, and Standards
RCFD = Riverside County Fire Department

5.5.8 Permits Required and Permit Schedule

See Table 5.5-7 for a list of potential permit requirements.

Table 5.5-7
Applicable Permits

Responsible Agency	Permit/Approval	Schedule
Federal Agencies	No permits required	N/A
State Agencies	No permits required	N/A
Riverside County DEH, HMMD, CUPA	Hazardous Materials Business Plan	Prepare 30 days prior to storage of hazardous materials on site.
Riverside County DEH, HMMD, CUPA	Spill Prevention Control and Countermeasures (SPCC) Plan	Prepare 30 days prior to commissioning of the facility.
RCFD	Fire Department requirements, storage of hazardous materials, flammables and combustible liquids, compressed gases and lead acid battery systems	Submit to RCFD Department for review and comment before storing these materials on site.

Source: Riverside County DEH, HMMD, 2011, RCFD, 2011
Notes:
CUPA = (Riverside County) Certified Unified Program Agency
DEH = (Riverside County) Department of Environmental Health
HMMD = (Riverside County) Hazardous Materials Management Division
LORS = Laws, Ordinances, Regulations, and Standards
N/A = Not Applicable
RCPD = Riverside County Fire Department
SPCC = Spill Prevention Control and Countermeasures

5.5.9 References

California Environmental Protection Agency (Cal-EPA). 2011. Website http://www.calepa.ca.gov/.

Code of Federal Regulations, Part 355. 1998. Emergency Planning and Notification, Appendix A 40. July 1. 52 Federal Register 13395.

Colorado River Regional Water Quality Control Board (CRRWQCB). 2011. Information downloaded from http://www.swrcb.ca.gov/rwqcb9/.

Neumann, Jason. 2011. Riverside County Fire Department. Telephone conversation with Darin Neufeld of URS Corporation and Jason Neumann, Fire Captain, Strategic Planning Division. August 18.

Riverside County Department of Environmental Health (DEH), Hazardous Materials Management Division (HMMD). 2011. Information downloaded from http://www.rivocoeh.org.

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Adequacy Issue: Adequate ____ Inadequate ____ **DATA ADEQUACY WORKSHEET** Revision No. 0 Date ____

Technical Area: **Hazardous Materials Handling** 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 (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Page 5.5-15, Section 5.5.4.3		
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 5.5-8, Section 5.5.3; Page 5.5-17, Section 5.5.5 Page 5.5-17, Section 5.5.6		
Appendix B (g) (10) (A)	A list of all materials used or stored on-site which are hazardous or acutely hazardous, as defined in Title 22, California Code of Regulations, § 66261.20 et seq., and a discussion of the toxicity of each material.	Page 5.5-9, Section 5.5.4; Table 5.5-2, Table 5.5-3, Table 5.5-4 and Table 5.5-5		
Appendix B (g) (10) (B)	A map at a scale of 1:24,000 depicting the location of schools, hospitals, day-care facilities, emergency response facilities and long-term health care facilities, within the area potentially affected by any release of hazardous materials.	N/A		
Appendix B (g) (10) (C)	A discussion of the storage and handling system for each hazardous material used or stored at the site.	Page 5.5-9, Section 5.5.4; Table 5.5-2, Table 5.5-3, Table 5.5-4 and Table 5.5-5		
Appendix B (g) (10) (D)	The protocol that will be used in modeling potential consequences of accidental releases that could result in off site impacts. Identify the model(s) to be used, a description of all input assumptions, including meteorological conditions. The results of the modeling analysis can be submitted after the AFC is complete.	Page 5.5-9, Section 5.5.4		

Adequacy Issue: Adequate ____ Inadequate ____ **DATA ADEQUACY WORKSHEET** Revision No. 0 Date ____

Technical Area: **Hazardous Materials Handling** 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) (10) (E)	A discussion of whether a risk management plan (Health and Safety Code § 25531 et seq.) will be required, and if so, the requirements that will likely be incorporated into the plan.	Page 5.5-17, Section 5.5.6		
Appendix B (g) (10) (F)	A discussion of measures proposed to reduce the risk of any release of hazardous materials.	Page 5.5-17, Section 5.5.6		
Appendix B (g) (10) (G)	A discussion of the fire and explosion risks associated with the project.	Page 5.5-14, Section 5.5.4		
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Page 5.5-2, Section 5.5.2		
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Page 5.5-21, Section 5.5.7; Table 5.5-6		
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Page 5.5-21, Section 5.5.7; Table 5.5-6		

Adequacy Issue: Adequate ____ Inadequate ____ **DATA ADEQUACY WORKSHEET** Revision No. 0 Date ____

Technical Area: **Hazardous Materials Handling** 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) (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, Section 5.5.8; Table 5.5-7		