

## **5.6 Hazardous Material Handling**

The potential impacts from the storage and use of hazardous materials during construction and operation of the Amended SSU6 Project are addressed in this section.

### **5.6.1 Summary of Differences between Amended Project and Original SSU6**

The original SSU6 project and the Amended Project are very similar in terms of use and potential exposure to hazardous materials. As with the original SSU6 project, hazardous material handling impacts for the Amended Project would be less than significant. An accidental release of hazardous materials on site would have no offsite consequences. As with the original project, the only sensitive receptor in the vicinity of the Project site is a single residence approximately 0.8 miles away.

The technology, processes and equipment proposed for the Amended Project are similar to, although less complicated than, the equipment that was approved for use with the original project. Where there are differences between the original SSU6 project and the Amended Project, the changes will reduce potentially adverse effects associated with hazardous materials. For example, the original project would have required the use of specific hazardous materials to facilitate solids separation from the spent brine. The single flash technology proposed for the Amended Project will not generate brine solids during normal operations. During the construction phase, the Amended Project will use the same hazardous materials in approximately the same quantities as required for by the original project.

### **5.6.2 LORS Compliance**

Design, construction, and operation of the Project will be conducted in accordance with LORS pertinent to hazardous materials handling. The applicable Federal, State, and local LORS are summarized in Table 5.6-1, and are discussed in the text following the table.

**Table 5.6-1 Summary of Applicable Hazardous Materials LORS**

<b>LORS</b>	<b>Applicability</b>	<b>Where Discussed in AFC</b>
<b>Federal:</b>		
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund), 42 United States Code (USC) §9601 et seq., 40 Code of Federal Regulations (CFR) Part 302, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA)	Requires notification to various agencies when there is a release of hazardous substances from a facility.	Sections 5.6.2 and 5.6.4
Emergency Planning and Community Right to Know Act (EPCRA), 42 USC §11001 et seq. 40 CFR Parts 350, 355, and 370	Requires inventory reporting, planning, and reporting for management of hazardous and acutely hazardous materials.	Sections 5.6.2 and 5.6.4
Oil Pollution Prevention, 40 CFR 112	Requires the preparation of a Spill Prevention Control and Countermeasures (SPCC) Plan.	Sections 5.6.2 and 5.6.4
<b>State:</b>		
Hazardous Material Business Plan, California Health and Safety Code (HSC) § 25500 to 25541; 19 California Code of Regulations (CCR) §§2720-2734.	Requires the preparation and submittal of a chemical inventory, and planning and reporting for management of hazardous and acutely hazardous materials.	Sections 5.6.2 and 5.6.4
California Building Standards Code, CCR, Title 24	Requires local Building Official to inspect and verify compliance with hazardous material management requirements prior to issuance of an occupancy permit.	Sections 5.6.2 and 5.6.4
Occupational Safety and Health Standards, CCR Title 8, Chapter 4, Subchapter 7, Group 16: Control of Hazardous Substances, §§5139-5223.	Specifies standards for hazardous materials storage, handling, and worker protection in emergencies.	Sections 5.6.2 and 5.6.4
California Safe Drinking Water and Toxic Enforcement Act (Proposition 65) HSC §25249.5 et seq.; CCR Title 22, Division 2, Part 2, Subdivision 1, Chapter 3 et seq.	California Safe Drinking Water and Toxic Enforcement Act (Proposition 65) requires persons who emits certain toxic chemicals to provide warning to exposed persons, and prevents certain toxic chemicals from being discharged into sources of drinking water.	Sections 5.6.2 and 5.6.4

**Table 5.6-1 Summary of Applicable Hazardous Materials LORS**

LORS	Applicability	Where Discussed in AFC
<b>Local:</b>		
Imperial County Land Use Ordinance Title 9, Division 17, Chapter 1, § 91701.01	Requires that a geothermal project facility be maintained and operated to minimize the possibility of fire, explosion, or any unplanned release of hazardous materials. Also requires the use of adequate safety devices and fire suppression equipment; and waste disposal in compliance with local, State, and Federal regulations.	Sections 5.6.2 and 5.6.4
<b>Industry Codes and Standards:</b>		
American Society of Mechanical Engineers (ASME), American National Standards Institute (ANSI) and American Society of Testing Materials (ASTM)	Sets forth standards for power plant design, including mechanical systems, electrical, and piping.	Sections 2.0, 5.6.2, 5.6.4 and 5.18
California Fire Code (CFC), Articles 79, 80, and others	Sets forth requirements for the storage and handling of hazardous materials.	Sections 2.0, 5.6.2, 5.6.4 and 5.18
National Fire Protection Agency (NFPA)	Establishes fire prevention standards and guidelines.	Sections 2.0, 5.6.2, 5.6.4 and 5.18

### 5.6.2.1 Federal LORS

Federal LORS potentially applicable to the handling and storage of hazardous materials are discussed below and listed in Table 5.6-1. Not all LORS listed will apply to the Amended Project.

#### **CERCLA (Superfund)**

CERCLA prescribes that the National Response Center be notified for any release of a reportable quantity of a hazardous substance (42 USC §9603); notification requirements for any potentially injured parties in connection with any such release (42 USC § 9611(g)); and sets forth requirements for demonstration of financial responsibility in connection with the storage of hazardous substances (42 USC §9608(b)).

Superfund regulations define “hazardous substance” as any material appearing in lists referenced in 42 USC §9601(14)(§101). The U.S. Environmental Protection Agency’s (EPA’s) regulations codified at 40 CFR 302.4, Table 3.2-4, set forth the list of CERCLA hazardous substances and the reportable quantities for each substance.

Superfund Amendment and Reauthorization Act (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. The Act (codified at 40 CFR §68.110 *et seq.*) requires states to implement a comprehensive system to inform local agencies and the public when a

## 5.6 Hazardous Material Handling

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significant quantity of such materials is stored or handled at a facility. The requirements of these Acts are reflected in the California HSC, §25531 *et seq.*

The Project will conform to these requirements by developing a Hazardous Materials Business Plan (HMBP). The administering agencies for these requirements are the EPA Region IX, the National Response Center, the State Office of Emergency Services, the Regional Water Quality Control Board, and Imperial County Department of Public Health, Environmental Health Services Department (County Environmental Health Services Department). The County Environmental Health Services Department is a Certified Unified Program Agency (CUPA).

### **Chemical Accident Prevention Provisions, 40 CFR Part 68**

Part 68 of 40 CFR requires the preparation of a Risk Management Plan (RMP) if certain listed toxic or flammable substances are used in excess of the listed threshold quantity. The RMP addresses in detail the emergency prevention implemented at the facility and the response actions planned by the facility in the event of a hazardous materials release. The RMP is based on studies identifying potential hazards associated with the handling of the listed materials used at the facility. California has developed its own program (California Accidental Release Prevention [CalARP]) that generally mirrors the Federal RMP program (see below). For those aspects of the California program that differ from the Federal program, California's program is more stringent.

As discussed in more detail later in this section, the Amended Project proposes to use only one chemical listed on the Federal regulated substance list, propane. However, a Federal RMP is not required for the Project because propane used as a fuel is excluded from the requirements pursuant to 40 CFR 68.126. In addition, ammonia and hydrogen sulfide are both known to be present in the brine and are both listed substances. However, pursuant to §68.115(b)(1), a RMP is not required for the process because the substances are present in the brine at concentrations less than one percent.

### **Process Safety Management, 29 CFR 1910.119**

Occupational Safety and Health Administration (OSHA) Process Safety Management regulations require facility owners to develop and implement effective safety management plans to insure that large quantities of acutely 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 (if/when applicable to the facility, which is not the case for the Project). The Project is not subject to the requirements of this rule because it will not store or use any of the chemicals listed in the rule in quantities exceeding the applicable threshold quantity. In addition, ammonia and hydrogen sulfide are both known to be present in the brine and are both listed substances. However, a Process Safety Management (PSM) plan is not required for the process because 1) ammonia is present in the brine at a concentration below the threshold at which PSM would apply (i.e., below 44 percent by weight), and 2) because at the expected concentration of hydrogen sulfide in the brine of 15 parts per million (ppm), total quantity of hydrogen sulfide in the process does not exceed the applicability threshold of 1,500 pounds.

### **Oil Pollution Prevention, 40 CFR Part 112**

The Oil Pollution Prevention regulations (40 CFR 112) require the preparation of a SPCC Plan if oil is stored at the facility in excess of 1,320 gallons in aboveground storage. The SPCC regulations place restrictions

on the management of petroleum materials and, therefore, have some bearing on hazardous materials management. The administering agency is the EPA; however, the County Environmental Health Services Department conducts inspections related to the SPCC program.

The facility will prepare a SPCC Plan, as the total quantity of oil stored aboveground is expected to exceed 1,320 gallons in the steam turbine lubrication systems, oil-filled transformers, and diesel fuel tanks.

#### **Chemical Facility Anti-Terrorism Standard, 6 CFR Part 27**

The Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standard (CFATS) regulations require that facilities that use or store certain hazardous materials in substantial quantities to submit information to the DHS so that a vulnerability assessment can be conducted to determine what security measures should be implemented to ensure facility security. The administering agency is the DHS.

The Amended Project proposes to use one chemical listed as Chemicals of Interest in the regulation: propane (used to fuel the recuperative thermal oxidizer [RTO]). However, propane will not be stored or used on site during construction or operation of the Project in excess of the applicable threshold quantity. A maximum of approximately 25,000 pounds of propane will be present in storage on site, below the threshold of 60,000 pounds which would trigger rule applicability. In addition, ammonia and hydrogen sulfide are both known to be present in the brine and are both listed substances. However, pursuant to Appendix A of the rule, these substances do not trigger rule applicability because ammonia is present in the brine at a concentration less than 20 percent and hydrogen sulfide is present in the brine at less than one percent. Therefore, the CFATS regulations do not apply to the Amended Project.

#### **5.6.2.2 State LORS**

Applicable State of California LORS are summarized below.

#### **Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), HSC, Chapter 6.11, §§ 25404 – 25404.9**

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the six environmental and emergency response programs listed below:

- Aboveground Storage Tank Program;
- Business Plan Program;
- CalARP Program;
- Hazardous Material Management Plan / Hazardous Material Inventory Statement Program;
- Hazardous Waste Generator/Tiered Permitting Program, and
- Underground Storage Tank Program.

The State agencies responsible for these programs set the standards for their programs while local governments implement the standards. The County Environmental Health Services Department is the CUPA for Imperial County and has jurisdiction over the Project.

## 5.6 Hazardous Material Handling

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The Hazardous Materials analysis provided in this section only considers application of the Aboveground Storage Tank Program, Business Plan Program, CalARP Program, and Hazardous Material Management Plan / Hazardous Material Inventory Statement Program elements of the Unified Program. Other elements of the Unified Program are addressed in Section 5.16, Waste Management and/or Section 5.18, Worker Safety.

This regulation does not contain requirements specifically for hazardous material management; rather, it consolidates existing programs under the jurisdiction of the CUPA. Compliance with the underlying regulations ensures compliance with the requirements of the Unified Program.

### **Unified Hazardous Waste and Hazardous Materials Management Regulatory Program, Title 27, CCR, Division 1, Subdivision 4, Chapter 1, §15100, et seq.**

While these regulations primarily address certification and implementation of the program by the local CUPAs, the regulations do contain specific reporting requirements for businesses.

- Article 9 – Unified Program Standardized Forms and Formats (§§ 15400-15410).
- Article 10 – Business Reporting to CUPAs (§§15600-15620).

This regulation does not contain requirements specifically for hazardous materials management; rather, it consolidates existing programs under the jurisdiction of the CUPA. Compliance with the underlying regulations ensures compliance with the requirements of this regulation.

### **Hazardous Material Business Plan, California HSC §§25500 - 25543.3; 19 CCR §§2720 - 2734**

These sections of the California HSC require the preparation of an HMBP by the facility operator. The HMBP identifies the hazards, storage locations and storage quantities for each hazardous chemical stored on site. The HMBP is submitted to the CUPA for emergency planning purposes. An HMBP will be prepared for the Project to comply with these requirements. The administering agency is the CUPA, in this case, the Imperial County Environmental Health Services Department.

### **Hazardous Substance Information and Training, 8 CCR §339; §3200 et seq., §5139 et seq. and §5160 et seq.**

The Hazardous Substance Information and Training Act (HSITA) requires facilities that use any of the specific chemicals listed in 8 CCR §339 to comply with the Labor Code §§6360 through 6399.7 and CCR Title 8 §5194 (Hazard Communication). Labor Code §§6360 through 6399.7 are implemented through several sections of the CCR. Title 8 CCR §3200 *et seq.* and 5139 *et seq.* address control of hazardous substances; 8 CCR §5160 *et seq.* address hot, flammable, poisonous, corrosive, and irritant substances. The California regulations contained in Title 8 (Division of Occupational Safety and Health) are generally more stringent than those contained in Title 29 of the Federal regulations. The administering agency for these requirements is the Cal-OSHA. The Amended Project will use and/or process several chemicals on the list, including but not limited to ammonia, benzene, and radon (in the brine), lead (in lead-acid batteries), and sodium hydroxide (pH control). The Project will implement a robust Hazard Communication program and chemical safety program to comply with the requirements of these regulations. See Section 5.18, Worker Safety for additional information regarding worker safety training and chemical safety programs.

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**Occupational Safety and Health Standards, CCR Title 8, Chapter 4, Subchapter 7, Group 16: Control of Hazardous Substances, §§5139-5223.**

These standards require employee training, personal protective equipment, safety equipment, and written procedures, programs, and plans for insuring worker safety when working with hazardous materials or hazardous work environments. Although intended primarily to protect worker health and safety, these requirements affect general facility safety. The applicant will develop a robust worker safety program that meets these requirements as explained in more detail in Section 5.18, Worker Safety.

**Process Safety Management of Acutely Hazardous Materials, 8 CCR §5189**

Title 8 CCR §5189 requires facility owners to develop and implement effective safety management plans to insure that large quantities of acutely 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 (if/when applicable to the facility, which is not the case for the Project). The administering agency for these requirements is Cal-OSHA. The Project is not subject to the requirements of this rule because it will not store or use any of the chemicals listed in Appendix A of the rule in quantities exceeding the applicable threshold quantity. In addition, ammonia and hydrogen sulfide are both known to be present in the brine and are both PSM-listed substances. However, a PSM plan is not required for the process because 1) ammonia is present in the brine at a concentration below the threshold at which PSM would apply (i.e., below 44 percent by weight), and 2) because at the expected concentration of hydrogen sulfide in the brine of 15 parts per million (ppm), total quantity of hydrogen sulfide in the process does not exceed the applicability threshold of 1,500 pounds.

**Risk Management Plan, HSC §25531 *et seq.***

The CalARP Program under HSC §25531 *et seq.*, codified as CCR Title 19, Division 2, Chapter 4.5, requires facility owners storing or handling acutely hazardous materials in excess of threshold quantities to develop a RMP and submit it to appropriate local authorities, the EPA, and the designated local administering agency for review and approval. The RMP must include 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 preexisting evaluations or studies of the material, and the accident history of the material.

The Project will use two chemicals listed on the State's regulated substance list: propane and sulfuric acid. However, a CalARP RMP is not required for the Project because neither of the chemicals will be stored or used on site during construction or operation in excess of the applicable threshold quantity, or in a form or manner that is subject to the regulation. Propane used as fuel is excluded from the requirements pursuant to §2770.4.1 of the rules. Sulfuric acid is only subject to CalARP RMP requirements if it is concentrated with 100 pounds of sulfur trioxide. The sulfuric acid proposed for facility use will not be concentrated with sulfur trioxide. In addition, ammonia and hydrogen sulfide are both known to be present in the brine and are both CalARP RMP-listed substances. However, pursuant to §2770.2(b)(1)(A), a RMP is not required for the process because the substances are present in the brine at concentrations less than one percent.

**California Building Code (CBC), CCR Title 24**

The CBC is a compilation of three types of building standards from three different origins:

## 5.6 Hazardous Material Handling

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- Building standards that have been adopted by state agencies without change from building standards contained in national model codes;
- Building standards that have been adopted and adapted from the national model code standards to meet California conditions; and
- Building standards, authorized by the California legislature, that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns.

The CBC contains requirements regarding the storage and handling of hazardous materials. The Chief Building Official at the local government level (i.e., Imperial County) must inspect and verify compliance with these requirements prior to issuance of an occupancy permit.

### **California Government Code §65850.2**

Section 65850.2 restricts the issuance of an occupancy permit to any new facility involving the handling of acutely hazardous materials until the facility has submitted an RMP to the administering agency with jurisdiction over the facility. As the facility is not required to prepare an RMP, this requirement does not apply to the Project.

### **California Safe Drinking Water and Toxic Enforcement Act (Proposition 65), HSC §25249.5 et seq.; CCR Title 22, Division 2, Part 2, Subdivision 1, Chapter 3 et seq.**

Proposition 65 requires persons who emit/release certain chemicals that are “known to the State to cause” cancer and reproductive toxicity to provide warning to exposed persons, and prevents certain chemicals that cause cancer and reproductive toxicity from being discharged into sources of drinking water. Certain exemptions apply for chemicals emitted in low quantities or low concentrations if the discharger shoulders the burden of proving that the risks are insignificant. The administering agency for Proposition 65 is the California Office of Environmental Health Hazard Assessment (OEHHA), although the program has no reporting requirements, and OEHHA has no inspection or direct oversight responsibilities for individual facilities. The Attorney General and private parties in practice enforce the law.

The Amended Project will use and/or release several chemical substances that contain Proposition 65-listed chemicals. The brine contains several Proposition 65-listed chemical substances that may be emitted during the course of normal facility operations, either through the cooling tower, steam vents, rock muffler, or air pollution control device. In addition, Proposition 65-listed chemical substances may be emitted as combustion byproducts from the facility from propane combustion in the air pollution control device, or from diesel fuel combustion in the emergency engines. However, the emission levels of Proposition 65-listed chemicals are not expected to exceed Proposition 65 thresholds for which public notification would be required. The facility operator will provide warnings to employees who may be exposed to listed chemicals by posting warning signs and through safety training, as provided by 8 CCR § 5194.

### 5.6.2.3 Local LORS

#### **Imperial County Land Use Ordinance, Title 9, Division 10, Chapter 3, §91003.02**

This regulation requires facilities that use hazardous substances to comply with the provisions of Article 79 of the 1997 CFC, relating to flammable and combustible liquids, and with CCR Title 23, Chapter 3, Subchapter 16. The administering agency is the Imperial County Planning and Building Department.

Several hazardous substances are currently planned for use by the Amended Project during operations that are subject to this regulation, including diesel and propane. The Project will comply with Article 79 and with CCR Title 23, Chapter 3, Subchapter 16 and will obtain a hazardous substance permit from the Imperial County Planning/Building Department.

#### **Imperial County Land Use Ordinance, Title 9, Division 17, Chapter 1 §91701.01**

This section of the ordinance requires that the facilities of a geothermal project be maintained and operated to minimize the possibility of fire, explosion, or any unplanned release of hazardous materials. It also requires that all activities involving use of flammable, explosive, highly corrosive, or reactive materials are provided with adequate safety devices and fire suppression equipment. The administering agencies for this regulation are County Environmental Health Services Department and the Imperial County Fire Protection Department. The County Environmental Health Services Department is the administering agency for HMBPs and routine hazardous materials inspections. The Imperial County Fire Prevention Department is the administering agency for fire protection and safety.

The Project will comply with this code through the submittal of an HMBP, which includes an Emergency Action Plan, prior to the storage of hazardous materials on site. The Imperial County Fire Prevention Department would also conduct a final safety inspection of the facility prior to initial facility operations.

### 5.6.2.4 Industry Codes and Standards

#### **ASME, ANSI and ASTM Standards**

ASME, ANSI and ASTM publish extensive codes and standards covering most aspects of power plant design and construction, ranging from piping to storage tanks to steam turbines. There is no administering agency specifically for ASME, ANSI or ASTM code enforcement.

#### **Uniform Fire Code, Articles 79, 80, and Others**

Article 80 includes provisions for storage and handling of hazardous materials. There is some overlap between this code and Chapter 6.95 of the California HSC. The fire code contains independent provisions regarding fire protection and neutralization systems for emergency venting (e.g., §80.303, D [compressed gases]). Article 4 establishes hazardous materials storage thresholds above which a permit is required. Article 79 identifies requirements for combustible and flammable liquids. The administering agency for these requirements is the County Environmental Health Services Department.

**National Fire Protection Association (NFPA)**

NFPA publishes standards for fire prevention. Several NFPA standards potentially apply to the construction, operation and maintenance of the facility, including standards for sprinkler protection, fire extinguishers, explosion prevention, flammable and combustible liquids use, fire prevention during welding and cutting, handling compressed gases, fire alarms, cooling towers, and construction standards for buildings and electrical facilities. The Imperial County Fire Protection Department is the administering agency for NFPA standards.

The Amended Project will be designed to meet all applicable industry standards to reduce the risk of an accidental release, operated in a manner that complies with safety standards and practices, and maintained so as to provide a safe workplace for plant personnel and to prevent significant adverse offsite impacts to the public at large. In addition, project construction and operation will incorporate up-to-date industrial technology and design standards, as well as established good industrial practices.

**5.6.2.5 Permits Required and Permit Schedule**

Environmental permits are not required for hazardous materials handling for the Project. However, the Project is required to file written plans related to hazardous material handling (e.g., HMBP) with the County Environmental Health Services Department prior to facility operation, and is required to have other plans (e.g., SPCC) in place prior to facility operation.

**5.6.2.6 Involved Agencies and Agency Contacts**

Agencies responsible for hazardous materials handling and agency contacts are provided in Table 5.6-2.

**Table 5.6-2 Agencies and Agency Contacts**

<b>Agency Contact</b>	<b>Phone/E-mail</b>	<b>Permit/Issue</b>
Peter Reich or Elizabeth Cox U.S. EPA Region IX 75 Hawthorne Street San Francisco, CA 94105	(415) 947-8000 reich.peter@epa.gov cox.elizabethm@epa.gov	SPCC
Larry McCune OSHA Region IX 71 Stevenson Street, Room 420 San Francisco, CA 94105	(510) 286-7000 LMcCune@hq.dir.ca.gov	Hazardous material storage, worker safety
Lilia Bowman Cal-OSHA, San Diego 7575 Metropolitan Drive, Suite 207 San Diego, CA 92108	(619) 767-2280 Fax: (619) 767-2299 Lbowman@dir.ca.gov	HSITA, hazardous material storage, worker safety
National Response Center	(800) 424-8802	Hazardous substance release notification

**Table 5.6-2 Agencies and Agency Contacts**

Agency Contact	Phone/E-mail	Permit/Issue
Randy Schulley, Chief Office of Emergency Services (OES) 3650 Schriever Ave. Mather, CA 95655	(916) 845-8510 (non-emergency)  (800) 852-7550 (emergency)  randy.schulley@oes.ca.gov	Hazardous substance release notification
Nick del Valle Registered Environ. Health Specialist II Imperial County Dept. of Public Health Environmental Services Department 939 Main St. B-77 El Centro, CA 92243	(760) 482-4203	HMBP
Joe R. Buzo or Lon Hettinger Fire Chief or Captain of Fire Prevention Imperial County Fire Protection Department 940 W. Main St., Suite 101 El Centro, CA 92243	(760) 353-5523  (760) 355-1191	CFC, NFPA

### 5.6.3 Affected Environment

The Project site is south of the Salton Sea in a region of the Imperial Valley used mostly for agriculture and geothermal power production. This section addresses potentially sensitive offsite land uses in the vicinity.

Like the original project, a hazardous materials release from the Amended Project would have no impact on offsite facilities. Two factors help reduce any possible risk to offsite facilities: 1) there are no sensitive receptors, defined as schools, hospitals, day-care centers, emergency response facilities, and long-term healthcare facilities, within a one-mile radius of the Project site, and 2) the closest residential land use is the staff housing for the Sonny Bono Salton Sea National Wildlife Refuge Headquarters, located 0.8 miles away. The next closest residence is approximately two miles east of the Project. Sensitive receptors within three miles of the site are shown in Figure 5.10-3, Public Health.

The Amended Project will also involve the construction of offsite brine injection well pads and injection pipelines between the plant site and these well pads. There are no known hazardous materials currently stored or used on the properties designated for these Project components, although it is possible that soil contaminated with hazardous substances may be encountered during construction. Management of contaminated soils that might be encountered is addressed in Section 5.16, Waste Management.

### 5.6.4 Environmental Impacts

The anticipated direct, indirect, and cumulative impacts from construction, operation and maintenance of the Amended Project are addressed in the following subsections.

### 5.6.4.1 Significance Criteria

The hazards and potential adverse impacts on the public health, worker safety, or the environment associated with hazardous material storage and use as a result of the Project would be considered significant if any of the following conditions are met:

- Noncompliance with any applicable design code or regulation;
- Nonconformance to NFPA standards;
- Nonconformance to regulations or generally accepted industry practices related to operating policies and procedures concerning the design, construction, security, leak detection, spill containment, or fire protection;
- Significant increase in risk of fatality or serious injury;
- Substantial human exposure to a hazardous material;
- Significant exceedance of the OSHA exposure limits on the site; or
- Significant exceedance of the California Energy Commission (CEC) or EPA risk management exposure endpoints off site.

Since the Project will be constructed, operated, and maintained in accordance with applicable LORS, no further hazard analysis related to equipment design is required. The analysis of potential hazardous materials impacts presented in the following subsections focuses on potential upset scenarios (e.g., chemical spills, fire, or explosion) that may result in risk of serious injury or substantial chemical exposure.

### 5.6.4.2 Construction

Hazardous materials that are anticipated for use during Amended Project construction include drilling mud, cement, gasoline, diesel fuel, oil, lubricants, welding gases (e.g., acetylene, oxygen, and argon), and small quantities of solvents and paint. There are no feasible alternatives to these materials for operating construction vehicles and equipment and for conducting other construction activities such as welding. No acutely hazardous substances will be used or stored on the plant site during construction.

Drilling mud will be used when drilling the 22 Project wells during the Project construction phase. Drilling fluids or “muds” are made up of water, weighting agents (most frequently barium sulfate [barite] is used), bentonite clay to help remove cuttings from the well and to form a filter cake on the walls of the hole, lignosulfonates and lignites to keep the mud in a fluid state, and various additives that serve specific functions. Drilling mud is typically delivered to the site as a dry solid that is slurried with water on site for use in the drilling process. Drilling mud does not exhibit hazardous characteristics in either dry or liquid states, and spills of mud can be cleaned up with little or no adverse environmental impact. Geothermal drilling muds are excluded from hazardous waste regulation pursuant to Health and Safety Code § 25143.1. Disposal of used mud and cuttings from the wells is discussed in more detail in Section 5.16, Waste Management.

Cement will be used for soil stabilization for the soil underlying the equipment foundations, perimeter berm construction, and other areas of the Project site that may need structural fill. Cement will be delivered as dry powder to the Project in 27-ton cement trucks and pneumatically transferred into 80-ton (nominal capacity)

portable cement silos. For perimeter berm construction, cement is transferred from the silo to the pugmill using a screw conveyor. For the soil stabilization underlying equipment foundations, cement is transferred using a screw conveyor to a mix tank where it is blended with water. The resulting cement slurry is then pumped to the mixing equipment. Cement is a mild irritant as a dry powder, and mildly corrosive in liquid form. However, spills of cement can be cleaned up with little or no adverse environmental impact.

Diesel fuel is the hazardous material with the greatest potential for environmental consequences during the construction phase due to the use of diesel fuel in construction equipment and the frequent refueling that will likely be required. To minimize the potential for a release, diesel fuel will not be stored on site, except in equipment/vehicle fuel tanks. When refueling is required, a mobile fuel truck will be brought on site to fuel each piece of equipment. The fueling will be supervised by both the fuel truck and equipment operators. Best Management Practices (BMPs) applicable to spill prevention and management will be developed in conjunction with the Construction Storm Water Pollution Prevention Plan (SWPPP) that will be prepared prior to initiating Project construction. Any fuel spilled will be promptly cleaned up, and any contaminated soil disposed of in accordance with the applicable State and Federal requirements. Construction will follow the recommended mitigation measures listed below as well as those from the original project. Additionally, a chemical management plan will be developed.

Small volumes of hazardous materials may be temporarily stored on site inside fuel and lubrication service trucks. Paints and solvents will be stored in flammable material storage cabinets. Welding gases will be stored in steel cylinders, chained upright to a solid support structure with the safety cover over the valve when not in use to prevent damage. Maintenance and service personnel will be trained in handling these materials. The most likely incidents involving these hazardous materials would be associated with minor spills or leaks. Impacts to the site workers, the public or the environment of a minor spill or leak will be mitigated through the emergency response training program and procedures that will be implemented by Project construction contractors and employees, and by thoroughly cleaning up minor spills as soon as they occur (see Section 5.16, Waste Management). Minimal risk for fire and/or explosion exists with the use of these types of materials in the limited quantities expected. There is minimal potential for environmental impacts from incidents involving adverse hazardous materials during construction.

### **5.6.4.3 Operation and Maintenance**

Hazardous materials will be used and stored on site during Project operations and maintenance. The hazardous material inventory, the general operational safety practices employed during hazardous material storage and use, the material-specific handling practices, and the toxicity of each hazardous material are discussed below.

#### **Hazardous Material Inventory**

A list of the large-quantity hazardous materials stored and used at the Project site along with the toxicity and storage practices for each material is provided in Table 5.6-3. For the purpose of this discussion, "large quantity" is defined as those chemicals stored or used in excess of 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for compressed gases. These quantities coincide with the thresholds for reporting under California's HMBP requirements.

In addition to the chemicals listed in Table 5.6-3, small quantities (less than 55 gallons, 500 pounds or 200 cubic feet) of janitorial supplies, office supplies, laboratory supplies, paint, degreasers, herbicides,

## 5.6 Hazardous Material Handling

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pesticides, air conditioning fluids (chlorofluorocarbons [CFC]), gasoline, hydraulic fluid, propane, and welding rods typical of those purchased from retail outlets may also be stored and used at the facility. These materials will be stored in the maintenance warehouse or office building. Flammable materials (e.g., paints, solvents) will be stored in flammable material storage cabinet(s) with built-in containment sumps. The remainder of the materials will be stored on shelves, as appropriate. Due to the small quantities involved, the controlled environment, and the concrete floor of the warehouse, a spill would be cleaned up without significant adverse environmental consequences.

Table 5.6-3 Summary of Large Quantity Hazardous Materials

Common Name	Hazardous Components				Storage			Federal Hazard Category	Fire Code Hazard Class
	Chemical Name	Wt%	CAS #	Exposure Limit	Largest Container	Pressure / Temperature	Type of Container		
Diesel #2	Petroleum Hydrocarbon	100	68476-34-6	ACGIH: 100 mg/m <sup>3</sup> TWA	600 Gallons	Ambient / Ambient	Tank	Fire	Class II Combustible Liquid
Gear Oils	Petroleum Hydrocarbon	100	None	NIOSH: None established OSHA: None established	55 Gallons	Ambient / Ambient	Drum	Fire	Class III-B Combustible Liquid
Hydrochloric Acid 36%	Hydrochloric Acid	36	7647-01-0	NIOSH: REL 5 ppm (7 mg/m <sup>3</sup> ) OSHA: PEL 5 ppm (7 mg/m <sup>3</sup> )	11,000 Gallons	Ambient / Ambient	Tank	Acute	Corrosive
	Hydrochloric Acid	2.5	7647-01-0	NIOSH: REL 5 ppm (7 mg/m <sup>3</sup> ) OSHA: PEL 5 ppm (7 mg/m <sup>3</sup> )	38,000 Gallons	Ambient / Ambient	Tank	Acute	Corrosive
Urea	Urea	NA	57-13-6	OSHA: PEL 15 mg/m <sup>3</sup> TWA (total); 5 mg/m <sup>3</sup> TWA (respirable) ACGIH TLV: 10 mg/m <sup>3</sup> – inhalable particulate; 3 mg/m <sup>3</sup> – respirable particulate	400 Gallons	Ambient / Ambient	Tote	Acute, Chronic	Irritant, Reproductive Toxicity
Mixed Gas	Carbon Dioxide	69.7	124-38-9	NIOSH: REL 5,000 ppm (9,000 mg/m <sup>3</sup> ) TWA OSHA: PEL 5,000 ppm (9,000 mg/m <sup>3</sup> ) TWA	1,600 Cubic Feet	Above Ambient / Ambient	Tank	Pressure release	Compressed Gas
	Air	30	NA	NIOSH: NA OSHA: NA					
	Hydrogen Sulfide	0.3	7783-06-4	NIOSH: REL 10 ppm (15 mg/m <sup>3</sup> ) 10-min OSHA: PEL 20 ppm (50 mg/m <sup>3</sup> ) 10-min peak					

Table 5.6-3 Summary of Large Quantity Hazardous Materials

Common Name	Hazardous Components				Storage			Federal Hazard Category	Fire Code Hazard Class
	Chemical Name	Wt%	CAS #	Exposure Limit	Largest Container	Pressure / Temperature	Type of Container		
Monopotassium Phosphate	Monopotassium Phosphate	100	7778-77-0	NIOSH: None established OSHA: None established	50 Pounds	Ambient / Ambient	Bag	Acute	Irritant
Nalco 1317 Liquid	Ethylene Thiourea	1	96-45-7	NIOSH: NA OSHA: NA	400 Gallons	Ambient / Ambient	Tote	Acute, Chronic	Toxic, Carcinogenic Irritant (as ethylene thiourea); NA as mixture
Nalco 1387 Inhibitor	Ethylene Glycol	5	107-21-1	ACGIH: 100 mg/m <sup>3</sup> STEL NIOSH: REL 50 ppm <sup>1</sup> OSHA: NA	400 Gallons	Ambient / Ambient	Tote	Acute	Class III-B Combustible Liquid
Nalco 97ND048	Linear alkyl benzene sulfonate	10 - 20	Proprietary	NIOSH: NA OSHA: NA	400 Gallons	Ambient / Ambient	Tote	Acute	None
Nalco 73202	Sodium Bisulfate	5 - 10	7681-38-1	NIOSH: None established OSHA: None established	400 Gallons	Ambient / Ambient	Tote	Acute	Corrosive
	Sodium Formaldehyde Bisulfite	1 - 5	870-72-4	NIOSH: NA OSHA: NA					
Bleach (Biocide)	Sodium Hypochlorite	12	7681-52-9	ACGIH: TLV 1 ppm TWA, 1 ppm STEL as chlorine OSHA: PEL 0.5 ppm TWA, 1 ppm STEL as chlorine AIHA: (WEEL) 2 mg/m <sup>3</sup> STEL	5,000 Gallons	Ambient / Ambient	Tank	Acute	Corrosive

Table 5.6-3 Summary of Large Quantity Hazardous Materials

Common Name	Hazardous Components				Storage			Federal Hazard Category	Fire Code Hazard Class
	Chemical Name	Wt%	CAS #	Exposure Limit	Largest Container	Pressure / Temperature	Type of Container		
Sulfuric Acid	Sulfuric Acid	29	7664-93-9	NIOSH: REL 1 mg/m <sup>3</sup> TWA OSHA: PEL 1 mg/m <sup>3</sup> TWA	50 Gallons	Ambient / Ambient	Batteries	Acute	Corrosive
Towerbrom 991 or equivalent	Trichloro-S-Triazinetrione	92	87-90-1	NIOSH: Not established OSHA: Not established	50 Pounds	Ambient / Ambient	Plastic pail	Acute	Oxidizer
	Sodium Bromide	5 - 10	7647-15-6	NIOSH: Not established OSHA: Not established					
Transformer Oil	Petroleum Hydrocarbon	100	None	NIOSH: None established OSHA: None established	6,295 Gallons	Ambient / Ambient	Transformers	Fire	Class III-B Combustible Liquid
Sodium Hydroxide (solution)	Sodium Hydroxide	50	1310-73-2	NIOSH: REL 2 mg/m <sup>3</sup> OSHA: PEL 2 mg/m <sup>3</sup> TWA	5,000 gallons	Ambient / Ambient	Tank	Acute	Corrosive
Propane	Propane	100	74-98-6	ACGIH: simple asphyxiant OSHA: PEL 1,000 ppm	2,000	Above Ambient / Ambient	Tank	Fire	Flammable Gas
Turbine Oil 32	Petroleum Hydrocarbon	100	None	NIOSH: None established OSHA: None established	10,000 Gallons	Ambient / Ambient	Tank	Fire	Class III-B Combustible Liquid
Vector 800 Cleaner	Sodium Hydroxide	10	1310-73-2	NIOSH: REL 2 mg/m <sup>3</sup> OSHA: PEL 2 mg/m <sup>3</sup> TWA	55 Gallons	Ambient / Ambient	Plastic Drum	Acute	Corrosive
	Sodium Metasilicate	9	6834-92-0	NIOSH: None established OSHA: None established					

**Notes:****Acronyms and Abbreviations:**<sup>1</sup> NIOSH questions whether

ACGIH – American Conference of Industrial Hygienists

REL – Recommended exposure limit

Table 5.6-3 Summary of Large Quantity Hazardous Materials

Common Name	Hazardous Components				Storage			Federal Hazard Category	Fire Code Hazard Class
	Chemical Name	Wt%	CAS #	Exposure Limit	Largest Container	Pressure / Temperature	Type of Container		
<p>this value is adequate.</p> <p>NA = Not Available</p>				<p>AIHA – American International Health Alliance</p> <p>NIOSH – National Institute for Occupational Safety and Health</p> <p>OSHA – US Occupational Safety and Health Administration</p> <p>PEL – Permissible exposure level</p>				<p>STEL – Short-term exposure limit</p> <p>TLV – Threshold limit value</p> <p>TWA – Time weighted average</p> <p>WEEL – Workplace Environmental Exposure Levels</p>	

### **General Operating Practices**

Chemicals will be stored or processed in vessels or tanks specifically designed for their individual characteristics. Hazardous materials storage or process vessels will be designed in conformance with applicable ASME codes. Large quantity (bulk) liquid chemicals will be stored outdoors in aboveground storage tanks (ASTs) manufactured of carbon steel or plastic, or in 400-gallon (nominal) capacity plastic totes. With the exception of the propane tank, spill containment structures (e.g., curbing, double walled tanks, or equivalent) to contain the chemicals in the event of a leak or spill will be constructed around each of the large-quantity hazardous chemical storage tanks or totes. The secondary containment structures will be designed to hold the entire contents of the tank or tote plus an allowance for precipitation from a 24-hour, 25-year storm event. Concrete containment structures will be coated with a chemical resistant coating (e.g., epoxy) to ensure long-term integrity of the containment structure. While propane is stored as a liquid, if a release were to occur, the propane would volatilize, thus secondary containment would be ineffective in controlling a release.

Small quantity chemicals will be stored in their original delivery containers in order to minimize risk of upset. Personnel working with chemicals will be trained in proper handling technique and in emergency response procedures for chemical spills or accidental releases. Personal protection equipment (PPE) will be provided.

Appropriate safety programs will be developed addressing hazardous materials storage and use, emergency response procedures, employee training requirements, hazard recognition, fire safety, first-aid/emergency medical procedures, hazardous materials release containment/control procedures, hazard communications training, PPE training, and release reporting requirements. These programs include Injury and Illness Prevention Program (see Section 5.18, Worker Safety), fire response program, plant safety program, and facility standard operating procedures. As required under Federal and California regulations, A Hazardous materials Business Plan (HMBP) will be prepared and submitted to the Imperial County Department of Public Health Environmental Health Services Department.

### **Substance-specific Operating Practices and Chemical Toxicity**

Substance-specific operating practices and toxicity issues are described in the following paragraphs.

*Propane.* Propane will be stored in a single 2,000-gallon pressure vessel (bullet tank), one tank per facility for a total of 6,000 gallons. The vessels will be designed to ASTM standards for pressure service. The vessels have pressure relief valves to prevent over pressurization. According to the Center for Chemical Process Safety, the mean time to catastrophic failure (defined as a ¼"-hole in the vessel) for a metallic pressurized vessel is 0.0109 per million hours of operation (CCPS 1989). The probability of failure is thus one failure approximately every 10,500 years. This probability does not represent a credible risk of an adverse offsite impact. Propane is a flammable gas.

*Hydrochloric Acid.* Hydrochloric acid (HCl) may be used as a scale-reducing agent in the piping system. Hydrochloric acid, used to remove scale in the brine piping and injection wells, is acutely toxic and corrosive. Because silica may precipitate from the brine, HCl will be injected at the well head to clean the pipes to allow for uninterrupted operations. The HCl will be received as a 38 percent by weight solution which is diluted to 2.5 percent concentration prior to use. There will be three HCl tanks associated with each of the three injection well pads - two 11,000-gallon, 36 percent concentration, and one 38,000-gallon, 2.5 percent

## 5.6 Hazardous Material Handling

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concentration. Each set of three tanks will be placed in an acid containment area sump located adjacent to the injection well pads. The tanks will be fabricated from plastic and will be single walled.

*Compressed Gas Storage.* Compressed gases stored and used at the facility may include gases typically used for maintenance activities, such as shop welding. These gases include acetylene, argon, and oxygen.

Acetylene is a flammable gas and a narcotic. It is highly reactive and is not toxic. Oxygen is an oxidizer with low toxicity. Argon has low toxicity but may cause asphyxiation if released in a confined area. The potential impacts presented by the use of these gases at the Project are less than significant based on the following site-specific conditions:

- Compressed gases will be stored in standard compressed gas cylinders at the facility (typically 200 cubic feet per cylinder), and the total quantity will be kept to the minimum required for operation and maintenance.
- The compressed gases will be delivered and stored in Department of Transportation (DOT)-approved safety cylinders, and secured to a solid support (such as a building or rack) to prevent tipping and physical damage.
- The compressed gases will be stored in an isolated storage area surrounded by crash posts to minimize potential for accidents or upset.
- Incompatible gases (e.g., flammable gases and oxidizers) will be stored in separate, isolated areas.
- Operators will be trained in the proper use of equipment and materials.

### *Water Treatment Chemicals*

Storage of large quantities of sodium hypochlorite (5,000 gallons) and sodium hydroxide (5,000 gallons) in tanks and sulfuric acid in 55-gallon drums will require special precautions, due to their corrosive natures. Each of the chemicals will be stored in tanks constructed of a chemically compatible material to minimize the potential for catastrophic failure of the tank. A spill containment structure surrounding each storage tank will also be provided in order to contain spills and leaks. Concrete spill containment structures will be coated with a corrosion-resistant material such as epoxy. Sulfuric acid, used for pH control in the cooling tower, is corrosive and water reactive. Although sulfuric acid is highly toxic, due to the low vapor pressure, it is typically hazardous only by direct physical contact. Sodium hypochlorite, used as a biocide in the cooling tower, is toxic, corrosive and a Poison-B. Sodium hydroxide, used to scrub acid from the high pressure steam and scrub sulfur compounds from the treated exhaust stream downstream of the RTO is acutely toxic and corrosive.

Cooling water treatment chemicals include corrosion inhibitors, pH buffers, and anti-scaling agents. Four proprietary (NALCO) water treatment products are anticipated for use in the cooling tower. These products will be stored in 400-gallon (nominal) plastic totes, which are the containers in which they are shipped to the site. Shipping and storing the products in the same container minimizes chemical transfers, and thus minimizes the chances of a spill. The totes will be provided with secondary containment sufficient to hold the full stored contents with an allowance for precipitation. The toxicity of each mixture is low; however, the toxicity of individual specific ingredients in the mixture may be higher.

*Petroleum Products.* Lube oil will be stored in 10,000-gallon carbon steel tanks, one for each steam turbine. The turbine enclosure provides secondary containment sufficient to hold the full contents of the tank. The tank will be inspected daily to ensure that it is not leaking. Lube oil has low toxicity and does not meet the criteria for any hazard class defined by the CFC.

Diesel fuel will be used to fuel the emergency generator and fire water pump engines. Diesel is a combustible liquid with low toxicity. The fire water pump engine has a 300-gallon fuel supply, the 1.5-MW emergency generator engine has a 600-gallon fuel supply, and the 1-MW emergency generator engine has a 600-gallon fuel supply, all in carbon steel tanks. The equipment skids provide secondary containment that can hold the full amount of the fuel.

Insulating oil is used in the electrical transformers at the facility. The largest transformer will contain 6,295 gallons of insulating oil. Each transformer is installed in a secondary containment structure that will contain 100 percent of the transformer capacity plus an allowance for precipitation.

Due to the storage of petroleum products in quantities exceeding 1,320 gallons in above ground storage in the transformers, and in lube oil and fuel tanks, the Project will prepare a SPCC Plan. The SPCC Plan will describe the storage of oil, the spill prevention measures employed by the facility, the potential consequences of a spill, and spill response measures developed by the facility to respond to an oil spill. The SPCC Plan will also describe the inspection and monitoring performed by the facility associated with oil storage.

### **Offsite Consequence Analysis**

The Amended Project has been designed so that large quantities of acutely hazardous materials are not required for construction or operation. Consequently, there are no reasonably foreseeable chemical release scenarios that would have the potential for offsite consequences. Therefore, an offsite consequence analysis has not been prepared for the Amendment Petition.

In the CEC's analysis of the original SSU6 project, it was determined that the project does not represent a significant risk of an adverse offsite impact due to a steam (hydrogen sulfide) release. The Amended Project will have brine flows that are similar to those of the original project, with similar pressures, temperatures and hydrogen sulfide concentrations. As such, the CEC's analysis and conclusions regarding the potential impacts from a steam release from the original SSU6 project would fairly represent the potential impacts from the Amended Project. Thus, the Amended Project does not pose significant offsite risks..

### **Fire and Explosion Risks**

The Amended Project will utilize one hazardous material (propane) that poses potential risks of fire or explosion because of its flammability. Propane, which will be used as a fuel for the air pollution control device (Recuperative Thermal Oxidizer [RTO]) at the facility, will be stored in three 2,000-gallon pressure vessels (bullet tank). The vessels are designed to ASTM standards for pressure service and have pressure relief valves to prevent over-pressurization. As noted earlier, there is a low probability of tank failure, thus it is unlikely that propane storage or use would have a significant adverse impact due to fire or explosion.

### **Seismic Risk**

The possibility exists that an earthquake could cause the failure of a hazardous materials storage tank or brine piping. An earthquake could also cause the failure of the secondary containment system (berms and dikes), as well as electrically controlled valves or pumps. The failure of all these preventive control measures might then result in a release of hazardous materials that could move off site and impact residents or workers in the surrounding area. The effects of the Loma Prieta earthquake of 1989, the Northridge earthquake of 1994, and the earthquake in Kobe, Japan, in January 1995, heighten concerns about earthquake safety. However, the Amended Project includes appropriate design features that reduce these risks to low levels.

The site class for seismic design per California Building Code (CBC) (2007) is Site Class F due to the liquefaction potential that has been estimated at the site by Fugro West, Inc. (Fugro, 2008). Project facilities will be designed and constructed to the applicable standards of the 2007 CBC for Seismic Zone 4 (see Section 2.0, Project Description and Section 5.5, Geologic Resources and Hazards). Based on the experience from the Northridge and other earthquakes, when tanks are constructed to current codes and standards, tank failures during seismic events are not likely and do not represent a significant risk to the public.

The brine piping from the production wells to the PGF and from the PGF to the injection wells will contain geothermal brine. The piping will be constructed without secondary containment. The piping will be constructed to allow for movement due to thermal expansion/contraction. The thermal expansion/contraction will cause more movement than would be expected during an earthquake. Therefore, it is very unlikely that an earthquake could cause the failure of the piping that would result in a release. Due to this inherent design feature, a piping failure during a seismic event is not likely and does not represent a significant risk to the public. And as noted above (see "Offsite Consequence Analysis"), the CEC determined that a release for brine and/or steam does not represent a significant risk of an adverse offsite impact due to a steam (hydrogen sulfide) release.

#### **5.6.4.4 Cumulative Impacts**

Facility design and hazardous materials handling programs developed and implemented for the Amended Project will reduce the Project's potential impacts to below significance levels. Other identified cumulative project (e.g., the Hudson Ranch CHAR geothermal project located approximately 3.4 miles from the Amended Project site) also would be required to comply independently with hazardous materials regulations depending on the nature and quantities of hazardous materials stored and used. Amended Project construction and operation activities will not cause or contribute substantially to significant cumulative impacts with respect to hazardous materials handling.

#### **5.6.5 Mitigation Measures**

Hazardous material handling mitigation measures are embodied in the CEC's Conditions of Certification (COC) for the original project. These COCs have been adopted and modified by the Applicant to make them appropriate for the Amended Project in the following section.

### 5.6.6 Conditions of Certification

The Conditions of Certification (COC) provided in the Commission's Decision for the original SSU6 project are shown below. The Applicant proposes a number of changes to these Conditions for the Amended Project. Recommended changes are indicated using *italics* for additional text and ~~strikethrough~~ for deleted text. The Applicant has added language to HAZ-1 establishing thresholds below which hazardous materials stored in small quantities do not need to be identified and prior approval obtained; this would avoid the need to identify and obtain prior approval for low-volume janitorial supplies or office supplies that contain hazardous materials. The Applicant also has deleted the requirement for a Risk Management Plan (RMP) in HAZ-2 because the Amended Project does not require a RMP.

**HAZ-1** The project owner shall not use any hazardous material in any quantity or strength not listed in AFC Table 5.6-3 unless approved in advance by the CPM. *This condition shall not apply to hazardous materials used or stored in quantities less than 55 gallons of liquid, 500 pounds of solids, or 200 cubic feet of gases.*

**Verification:** The project owner shall provide to the CPM, in the Annual Compliance Report, a list of all hazardous materials contained at the facility.

Note: The Applicant anticipates the use of a variety of hazardous materials in low quantities such as janitorial supplies and office supplies that do not appear in Table 5.6-3.

**HAZ-2** The project owner shall provide a ~~Risk Management Plan RMP (if required by local regulatory body) to appropriate local administering agencies and the CPM for review at the time the RMP is first submitted to the U.S. Environmental Protection Agency (EPA).~~ A Hazardous Materials Business Plan [HMBP] (which shall include the proposed building chemical inventory as per the UFC) that shall also be submitted to appropriate local administering agencies for review and to the CPM for review and approval prior to construction of hazardous materials storage and containment structures. The project owner shall include all recommendations of the local administering agencies and the CPM in the final HMBP. ~~A copy of the final RMP, including all comments, shall be provided to appropriate local administering agencies and the CPM once it receives EPA approval.~~

**Verification:** At least 30 days prior to the commencement of construction of hazardous materials storage and containment structures, the project owner shall provide the final plans (~~RMP and~~ HMBP) listed above to the CPM for approval.

### 5.6.7 References

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## 5.6 Hazardous Material Handling

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