4.7 HAZARDOUS MATERIALS AND PUBLIC HEALTH

This section contains a description of the environmental and regulatory settings with respect to hazardous materials and public health and safety. Hazards associated with seismic conditions are addressed in Section 4.6, Geology, Soils, and Mineral Resources. Potential flooding and water quality hazards are addressed in Section 4.8, Water Quality and Hydrology. Public health risks associated with air emissions are addressed in Section 4.3, Air Quality. The issues considered in this section include exposure to chemical contaminants and hazardous wastes and the potential for encountering hazardous contaminants on the surface or subsurface during construction and operation of the proposed Projects.

Scoping Issues Addressed

During the scoping period for the Projects, two public scoping meetings were conducted and written comments were received regarding potential threats to human health and the environment. One letter was received from the Department of Toxic Substances Control (DTSC) and the other letter was from March Air Force Base on behalf of the U.S. Marine Corps Air Station (MCAS) Yuma. The DTSC recommends the following:

- Identify whether conditions within the Project sites may pose a threat to human health or the environment.
- Search standard regulatory databases to identify any existing environmental contamination issues within the project area.
- Identify the mechanism that would initiate any required investigation and/or remediation for any site within the proposed project area that may be contaminated and the government agency that would provide appropriate regulatory oversight.
- Include the findings of any investigations conducted at the site, including any Phase I or II Environmental Site Assessment, and a summary of any sampling results in which hazardous materials were found above regulatory standards.
- Investigate the presence of hazardous chemicals, mercury, asbestos-containing materials, or lead-based paints or products for any structures that are demolished.
- Sample any imported soils to ensure they are free of contaminants.
- Evaluate on-site soils and groundwater for agriculture-related contaminant residuals, including pesticides, chemicals, and organic waste.
- Identify any hazardous wastes that may be generated by operation of the proposed Projects or handled, stored, or used by the projects.

MCAS Yuma indicated that the proposed Project sites are located beneath two military low-level routes, Visual Route (VR)-1211 and VR-288. The site may experience noise, vibrations, and interference during the overflight of low-flying military aircraft that operate in this area.

Lt. Colonel Nichols, a pilot stationed at March Air Reserve Base, on behalf of MCAS Yuma, indicated that the proposed Projects are positioned directly beneath VR-1211; however, given that the Sonny Bono Salton Sea National Wildlife Refuge is located 2.75 miles southwest and the Wister Waterfowl Management Area is located 1.8 miles north of the Project sites, he stated that pilots flying in the Projects' vicinity would reposition their flight paths, thereby avoiding the sites. Lt. Nichols also stated that the proposed Projects would not become an issue for Marine Corps Air Station Yuma as long as structures associated with the Projects are less than 300 feet tall (Nichols 2011).

Applicants' Reports and Survey Results

Information used in preparing this section and in the evaluation of potential impacts on the environment and public health was derived from a number of sources, including a Geotechnical Report prepared by Landmark Consultants, Inc. in 2012 (Appendix G), a Phase I Environmental Site Assessment for the Hudson Ranch II Geothermal Project, conducted by Environmental Management Associates in August 2009 (Appendix H-1), an Agency Database Record Search conducted by Environmental Management Associates for the Simbol Calipatria Plant II Project in ~~and~~ March 2012 (Appendix H-2), and a Water Supply Assessment (WSA) prepared by Pangaea Land Consultants, Inc. in March 2012 (Appendix I). These documents are contained in Volume II (Technical Appendix) of this EIR.

4.7.1 EXISTING SETTING

REGIONAL SETTING

The proposed Projects would be located in the unincorporated County of Imperial, which is situated in the southeasternmost portion of the State of California. The County encompasses an approximately 4,597–square-mile area and is bordered by Riverside County to the north, the State of Arizona on the east, Mexico to the south, and San Diego County to the west. Approximately 12% (347,941-acres) of the land area in County of Imperial has been designated by the United States Geological Survey (USGS) as a Known Geothermal Resource Area (KGRA).

In recent years, a number of solar and geothermal energy projects have been proposed for development in the County. According to the Imperial County Geothermal/Alternative Energy and Transmission Element, approximately 1,790 megawatts (MW) of renewable energy development is anticipated to come from geothermal resources located throughout the County by the year 2015 (County of Imperial 2006).

Project Sites

The HR-2 and SmCP-2 Project sites would be located on 100-acres of private land within a 245-acre parcel located in the unincorporated area of the County of Imperial and within the Salton Sea KGRA Zone. The

proposed Project sites are located approximately 2.3 miles west southwest of the Town of Niland, California, and 1.1 miles directly east of the existing Hudson Ranch I Geothermal Plant (see Chapter 3, Project Description, Figure 3-1). The proposed Project sites are located between McDonald Road and Schrimpf Road, just west of English Road (see Chapter 3, Project Description, Figure 3-2). At the time of the publication of the NOP and the Draft EIR, the agricultural fields on the Project sites were fallow and not being irrigated.

Contaminated Sites

The primary reason for defining potentially hazardous sites is to protect health and safety and to minimize the public's exposure to hazardous materials during Project construction and waste handling. Exposure can occur during normal use, handling, storage, transportation, and disposal of hazardous materials. Exposure may also occur due to hazardous compounds existing in the environment, such as fuels in underground storage tanks, pipelines, or areas where chemicals have leaked into the soil or groundwater. If encountered, contaminated soil may qualify as hazardous waste, thus requiring handling and disposal according to local, state, and federal regulations.

The list of Hazardous Waste and Substances Sites and Sites with Land Use Restrictions revealed that there are no land use restrictions for the proposed Project sites and there are six contaminated sites within 7 miles of the Project sites, as shown in Table 4.7-1.

TABLE 4.7-1 HAZARDOUS WASTE GENERATOR FACILITIES IN THE VICINITY OF THE PROPOSED PROJECT SITES

SITE NAME	ADDRESS	CITY	SITE/FACILITY TYPE	CLEANUP STATUS	DISTANCE FROM PROPOSED PROJECT SITES
COUNTY OF IMPERIAL, CALIFORNIA					
CalEnergy – Leathers Facility	342 W Sinclair Rd	Calipatria	Tiered Permit Site	Active	1.6 miles
CalEnergy – Elmore Facility	786 W Sinclair	Calipatria	Tiered Permit Site	Active	1.6 miles
CalEnergy – Central Services	480 W Sinclair Rd	Calipatria	Tiered Permit Site	Active	2.2 miles
CalEnergy - Vulcan/Del Ranch(Hoch) Facilities	7001 Gentry Rd	Calipatria	Tiered Permit Site	Active	4.7 miles
CalEnergy – Units 1&2/Units 3&4/5 Facilities	6920 Lack Rd	Calipatria	Tiered Permit Site	Active	6.4 miles
Chocolate Mountain Naval Aerial Gunnery Range	Naval Weapons Range, East of Salton Sea	Niland	State Response	Certified as of 12/18/2003	6.8 miles

Source: California Department of Toxic Substances Control 2011.

Hazardous Waste Disposal

Any hazardous waste generated during construction would be collected in hazardous waste accumulation containers near the point of generation and moved daily to the general contractor's 90-day hazardous

waste storage area located onsite. The accumulated waste would be transported by an authorized waste transporter to an off-site waste management facility authorized to accept the waste. Hazardous waste would be recycled or managed and disposed of properly in a licensed Class I waste disposal facility authorized to accept the waste.

Geothermal Energy Hazards

The development of geothermal energy may introduce hazardous material into the environment during exploration and production drilling, storage, and use. Impacts to human health and safety from geothermal development could include the introduction of hazardous materials into the environment and accidents/risks inherent in industrial facilities during exploration, construction, operation, and decommissioning. Common impacts on health and safety/hazards associated with geothermal energy development are summarized in Table 4.7-2.

TABLE 4.7-2 COMMON IMPACTS TO HEALTH AND SAFETY/HAZARDS FROM GEOTHERMAL ENERGY DEVELOPMENT

PROJECT PHASE	ACTIVITY	IMPACT
Site Evaluation/ Exploration	– Surveying and well drilling. – Access road and well pad construction. – Staging equipment. – Vehicular traffic.	– Spills involving hazardous materials, such as petroleum, oils, and lubricants. – Accidents inherent in drilling operations.
Construction	– Drilling. – Construction of injection wells and sump pits. – Construction of the geothermal power plant. – Construction of pipelines.	– Exposure to drilling mud and geothermal fluid or steam during exploration and development drilling activities. – Exposure to hydrogen sulfide contained in geothermal fluid or steam during exploration and development phases. – Spills involving hazardous materials used and stored at facilities, such as petroleum, oil, lubricants, paints, solvents, and herbicides. – Exposure of individuals to electrical fires or wildfires. – Vehicular accidents due to increased traffic on local roads. – Accidents inherent in drilling operations.
Operation and Maintenance	– Transformer, power house, and cooling tower.	Exposure of individuals to: – Geothermal fluid or steam during system failures, maintenance activities, or well blowouts. – Hydrogen sulfide contained in geothermal steam emissions. – Spills involving hazardous materials used, such as petroleum, oils, lubricants, paints, solvents, and herbicides. – Electrical fires and wildfires caused by project activities. – Electric shock involved in maintenance of transmission lines and substations. – Vehicular accidents due to increased traffic on local roads.

TABLE 4.7-2 COMMON IMPACTS TO HEALTH AND SAFETY/HAZARDS FROM GEOTHERMAL ENERGY DEVELOPMENT

PROJECT PHASE	ACTIVITY	IMPACT
Decommissioning	– Vehicular traffic. – Staging equipment. – Facility removal. – Breaking up concrete pads and foundations. – Removing access roads that are not maintained for other uses. – Recontouring the surface. – Revegetation.	Exposure of individuals to: – Heat and hydrogen sulfide from geothermal fluid or steam during well capping. – Hazardous materials used during dismantling structures and reclamation of a site, such as petroleum, oils, and lubricants. – Electrical fires or wildfires. – Vehicular accidents. – A variety of potential accidents inherent to demolition activities.

Sensitive Receptors

Sensitive receptors that may be susceptible to health and safety impacts resulting from the construction and operation of renewable energy facilities generally include on-site workers and the young and elderly sectors of the population.

The Town of Niland is approximately 2.3 miles south southwest of the Project sites. The nearest residence is approximately 0.5 miles north-northeast of the Project sites, along English Road. EnergySource, LLC (Hudson Ranch Power II LLC's parent company) owns the home and and is allowing the current tenant to remain in the residence until Fall 2012. This residence would be demolished prior to the start of construction of either the HR-2 or SmCP-2 Project. The next closest residence is located 1.4 miles northwest of the Project sites. The closest school is the Grace Smith Elementary School which is located 2.6 miles to the northeast. A commercial algae production facility is located south of the Project sites. This facility includes a mobile home which, at the time of the publication of the NOP, served as a residence for the facility caretaker. The commercial algae facility is no longer in operation and is not part of the proposed Projects.

Aircraft and Military Operations

The Calipatria Municipal Airport, otherwise known as the Cliff Hatfield Memorial Airport, is the closest public airport to the Project sites, located approximately 4.8 miles to the southeast. This airport has a single 3,423-foot asphalt-paved runway. According to the Imperial County Airport Compatibility Plan, Compatibility Zone C (Common Traffic Pattern Zone) is located approximately 3.7 miles south-southeast of the Projects' intersection of English Road and Wilkinson Road. Zone C is characterized by limited risk to aircraft flying at or below 1,000 feet above ground level, as well as limited noise intrusion (Imperial County Airport Land Use Compatibility Plan [ALUCP] 1996). The closest private airport is located 16 miles south of the Project sites.

Military bases were established in the Imperial Valley desert area during the World War II and are still in use today. The Chocolate Mountain Aerial Gunnery Range is located along the western boundary of the West Chocolate Mountains and is 6.8 miles east of the Project sites. Navy Special Warfare conducts

readiness training on and around the range. Marine Corps Air Station Yuma operates low-flying military aircraft in the vicinity of the Project sites. The airports and military facilities near the proposed Project sites are listed in Table 4.7-3.

TABLE 4.7-3 AIRPORTS AND MILITARY FACILITIES NEAR THE PROPOSED PROJECT SITES

AIRPORT NAME	TYPE OF AIRPORT	DISTANCE FROM PROJECT SITES (MILES)	DIRECTION FROM PROJECT SITES
Cliff Hatfield Memorial (aka Calipatria Municipal Airport)	Public	4.8	Southwest
Brawley Municipal Airport	Public	14.0	South
O'Connell Brothers Airport	Private	16.3	South
Imperial County Airport	Public	25.5	South
El Centro Naval Air Facility	Military	27.3	Southwest
Douthitt Strip	Private	27.4	South
Holtville Airport	Public	28.7	Southeast
Marine Corps Air Station Yuma	Military	65.0	Southeast

Source: AirNav 2011; OurAirports.com 2011

Industrial/Technological Hazards

Pipeline and Power Line Crossings

Proposed Projects are not known to be located in close proximity to underground pipelines, however, an existing above-ground 230-kV IID transmission line crosses the Project sites in a north to south direction. Prior to commencement of any grading activities, Hudson Ranch Power II, LLC and Simbol, Inc. would be required by law to contact the appropriate Underground Service Alert organization to identify the location of any underground utilities. Overhead lines that would be near or immediately adjacent to the site would be identified by Hudson Ranch Power II, LLC and Simbol, Inc., and it is not anticipated that there would be a power outage associated with the construction of the transmission line.

Emergency Evacuation Routes

The County of Imperial Emergency Operations Plan does not designate specific evacuation routes (Imperial Office of Emergency Services 2007). The Project sites do not bisect any major routes of travel. State Route 111 is 1.4 miles east of the site and it connects to Interstate 10 to the north and Interstate 8 to the south, providing alternative route options for exiting the area. Construction and operation activities for the proposed Projects would not require lane or roadway closures for equipment delivery.

Fire Hazards

Wildland fires result from either natural or man-made causes that occur in brush, grasslands, or fallow agricultural areas that are capable of causing widespread damage to neighboring lands, in addition to threatening the lives and personal property of persons residing in wildfire-prone areas. According to the Imperial California Department of Forestry And Fire Protection maps the Project sites are classified as a low risk fire zone (CalFire 2007).

The proposed HR-2 and SmCP-2 would have separate fire-protection systems that would consist of underground fire mains, surface distribution equipment such as yard hydrants and hose houses, monitors around the cooling towers, and automatic sprinklers. The freshwater storage pond(s) on the Project sites would provide firewater to the respective Project plant sites.

4.7.2 REGULATORY SETTING

Hazardous materials handling and hazardous waste management are subject to numerous laws and regulations at all levels of government; laws and regulations related to health and safety are regulated by federal and state agencies. The laws that may apply to the proposed Projects are summarized below.

FEDERAL AND STATE

Resource Conservation and Recovery Act

Resource Conservation and Recovery Act and Hazardous and Solid Waste Act Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the Environmental Protection Agency (EPA) for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA) which affirmed and extended the “cradle to grave” system of regulating hazardous wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by HSWA.

Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act (SARA) amended CERCLA, 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. Additionally, SARA identifies requirements for planning, reporting, and notification, with regards to hazardous materials. SARA Title III contains the Emergency Planning and Community Right-to-Know Act (EPCRA).

Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) administers Occupational Safety and Health Standards (29 Code of Federal Regulations [CFR] 1910 and 1926), which (1) provide regulations for safety

in the workplace; (2) regulate construction safety; and (3) require a Hazard Communication Plan to include identification and inventorying of all hazardous materials for which material safety data sheets would be maintained, as well as employee training in safe handling of said materials.

Occupational Safety and Health Administration, Electrical Safety Standards

Title 29 CFR, Part 1910.302, Sub-Part S: Design Safety Standards for Electrical Systems, and 1910.331: Electrical Safety-Related Work Practices Standard (1990) provides a description of concepts and principles associated with electrical hazards and basic electrical safety for individuals. OSHA's electrical standards for construction recommend following general industry electrical standards whenever possible for hazards that are not addressed by industry-specific standards. The standards address concerns that relate to electrical hazards and exposures to dangers such as electrical shock, electrocution, burns, fires, and explosions. OSHA's electrical standards help minimize these potential hazards by specifying safety aspects in the design and use of electrical equipment and systems.

Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans, 49 CFR 172.800

This Regulation requires that the suppliers of hazardous materials prepare and implement security plans in accordance with U.S. Department of Transportation regulations.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act (HMTA) of 1975 primary objective is to provide adequate protection again the risks to life and property inherent in the transportation of hazardous materials in commerce. HMTA empowers the US DOT to regulate the transportation of hazardous materials by rail, aircraft, vessel, and public highway. Amendments of 1976 and 1990 substantially revise existing provisions and add new requirement for chemical that the DOT has determined pose unreasonable risks to health, safety and property during transport activities. Hazardous materials regulations are subdivided into Procedures and/or Policies, Material Designations, Packaging Requirements, and Operational Rules. This regulation is relevant to the Projects since materials to be transported to and from the Project sites would include fuels, transformer oil and other chemical substances that are regulated by DOT.

Pollution Prevention Act

The Pollution Prevention Act, 42 U.S.C. § 13101 et seq., established, as national policy, that, wherever feasible, source reduction must be used as the primary method of preventing pollution. Source reduction is defined as reducing the amount of any hazardous substance, pollutant, or contaminant released into the environment, and it can involve substituting materials and changing processes to avoid the use of hazardous substances altogether. Other requirements of the Act include recycling pollutants that cannot be disposed of in an environmentally safe manner, treating pollution that cannot be prevented or recycled in an environmentally safe manner, and disposing of pollutants or releasing them into the environment only as a last resort.

Emergency Planning and Community Right-to-Know Act

The Emergency Planning and Community Right-to-Know Act (EPCRA), 40 C.F.R. 350-372 is also known as Title III of the SARA and is augmented by Executive Order 12856 (Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements). EPCRA has four major sections, each providing different requirements for facilities, communities, and states, and each covering a different group of chemicals. These sections include Emergency Planning (Sections 301-303), Emergency Notification (Section 304), Community Right-to-Know (Sections 311-312), and Toxic Release Inventory Reporting (Section 313). EPCRA establishes programs to provide the public with information on the hazardous and toxic chemicals in their communities and requires emergency planning and notification programs to protect the public in the event of a release of extremely hazardous substances. It further requires specified facilities to prepare an annual report listing the amount of certain chemicals treated or recycled on-site, transferred off-site, or released into the environment.

Hazardous Materials Release Response Plans and Inventory Act of 1985

The Hazardous Material Release Response Plans and Inventory Act, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Hazardous materials are defined as raw or unused materials that are part of a process or manufacturing step and are not considered to be hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste. Under this Act, Hudson Ranch Power II, LLC and Simbol, Inc. would be required to prepare a Hazardous Materials Business Plan for construction and operation of the Project.

Hazardous Waste Control Act

The Hazardous Waste Control Act created the state hazardous waste management program, which is similar to, but more stringent than, the RCRA program requirements. The Act is implemented by regulations contained in CCR Title 22, Division 4 and 5, which describe the requirements pertaining to the following aspects of proper management of hazardous waste:

- Identification and classification.
- Generation and transportation.
- Design and permitting of recycling, treatment, storage, and disposal facilities.
- Treatment standards.
- Operation of facilities and staff training.
- Closure of facilities and liability requirements.

The regulations list more than 800 materials that may be hazardous and establish criteria for the identification, packaging, and disposal of such waste. Under the Hazardous Waste Control Act and CCR Title 22, the generator of hazardous waste must complete a manifest that accompanies the waste from the generator to the transporter to the ultimate disposal location. Copies of the manifest must be filed with the DTSC. The DTSC operates programs to protect California from exposures to hazardous wastes.

Emergency Services Act

The state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. This plan is administered by the California Emergency Management Agency (CEMA), who coordinates with CalEPA, California Department of Transportation (CalTrans), California Highway Patrol, regional water quality control boards, air quality management districts, and county disaster response offices to provide a rapid response to emergencies including incidents involving hazardous material or hazardous waste.

California Law, Government Code 4216

4216.1. Every operator of a subsurface installation, except the Department of Transportation, shall become a member of, participate in, and share in the costs of, a regional notification center. Operators of subsurface installations who are members of, participate in, and share in, the costs of a regional notification center, including, but not limited to, the South Shore Utility Coordinating Council, the Underground Service Alert--Northern California or the Underground Service Alert--Southern California are in compliance with this section and Section 4216.9 (Underground Service Alert, 2012).

LOCAL

County of Imperial Operational Area Emergency Operations Plan

The County of Imperial Operational Area Emergency Operations Plan provides a comprehensive, single source of guidance and procedures for the County to prepare for and respond to significant or catastrophic natural, environmental, or conflict-related risks that produce situations requiring coordinated response (County of Imperial Office of Emergency Services 2007).

County of Imperial Multi-Jurisdictional Hazard Mitigation Plan

The County of Imperial Multi-Jurisdictional Hazard Mitigation Plan (MHMP) was developed in 2007 by the County of Imperial to create a safer community. The County of Imperial MHMP represents the County's commitment to reducing risks from natural and other hazards and serves as a guide for decision-makers as they commit resources to reducing the impacts of natural and other hazards, with the exception of flood hazards which are covered by a separate multi-jurisdictional Flood Management Plan. The County of Imperial MHMP serves as a basis for the State Office of Emergency Service (OES) to provide technical assistance and to prioritize project funding. Included in this MHMP are the cities of Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmorland, with participation and input from the Imperial

Irrigation District, Imperial County School District, and the Salton Community Services District (County of Imperial 2007).

County of Imperial General Plan

The Seismic and Public Safety Element of the County of Imperial General Plan is focused on reducing loss of life, injury, and property damage that might result from a disaster or accident. This Element identifies goals and policies that would minimize the risks associated with natural and human-made hazards. In addition, the Element specifies land use planning procedures that should be implemented to avoid hazardous situations (County of Imperial 1993).

The County of Imperial General Plan provides goals, objectives, and policies related to geology, soils, and seismicity. The Seismic and Public Safety Element identifies goals and policies that would minimize the risks associated with natural and human-made hazards.

Table 4.7-4 identifies applicable General Plan policies related to hazardous materials and public health and addresses the HR-2 and SmCP-2 Projects' consistency with these policies.

TABLE 4.7-4 HR-2 AND SMCP-2 PROJECTS' CONSISTENCY WITH GENERAL PLAN HAZARDOUS MATERIALS AND PUBLIC HEALTH GOALS AND OBJECTIVES

GENERAL PLAN POLICIES	CONSISTENCY	ANALYSIS
SEISMIC AND PUBLIC SAFETY ELEMENT		
Land Use Planning and Public Safety, Goal 1: Include public health and safety considerations in land use planning.	Yes	The proposed HR-2 and SmCP-2 Projects include health and safety measures such as lighting of the facility, fire suppression, and secondary containment that would be utilized in the event of accidental releases of hazardous and acutely hazardous materials.
Emergency Preparedness, Goal 2: Minimize potential hazards to public health, safety, and welfare, and prevent the loss of life and damage to health and property resulting from both natural and human-related causes.	Yes	See response for Goal 1, above.
Control Hazardous Materials, Goal 3: Protect the public from exposure to hazardous materials and wastes.	Yes	During Construction of the HR-2 and SmCP-2 Projects, environmental monitoring and regular routine visual inspections of the development site would be made in conjunction with County of Imperial building Inspection(s) of the site. During operation of the HR-2 and SmCP-2 Projects, Job Hazard Analyses (JHAs) for would be prepared to identify any additional hazards associated with a job or task prior to performance. This would provide an opportunity to evaluate whether additional measures must be taken to minimize impacts from potential hazards. In addition, both the HR-2 and SmCP-2 Projects would comply with California Occupational Safety and

TABLE 4.7-4 HR-2 AND SMCP-2 PROJECTS' CONSISTENCY WITH GENERAL PLAN HAZARDOUS MATERIALS AND PUBLIC HEALTH GOALS AND OBJECTIVES

GENERAL PLAN POLICIES	CONSISTENCY	ANALYSIS
SEISMIC AND PUBLIC SAFETY ELEMENT		
		Health Administration (CALOSHA) Regulations and Standards. These requirements address numerous worker safety issues including emergency action/evacuation, personal protective equipment, first aid, blood borne pathogens, cranes and hoists, vehicle/traffic, chemical exposures.
Objective 3.2: Minimize the possibility of hazardous materials/waste spills.	Yes	See response for Goal 3, above.
Objective 3.4: Adopt and implement ordinances, policies, and guidelines that assure the safety of County ground and surface waters from toxic or hazardous materials and wastes.	Yes	See response for Goal 3, above.

Source: County of Imperial 1993

While this Draft EIR analyzes the Projects' consistency with the County of Imperial General Plan, pursuant to California Environmental Quality Act (CEQA) Guidelines, Section 15125(d), the County of Imperial Planning Commission will determine the Projects' consistency with the General Plan.

4.7.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following CEQA Guidelines, as listed in Appendix G. Impacts of hazardous materials and risk of upset would be significant if the Projects would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

2. 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.

3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.

4. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.

5. Result in a safety hazard for people residing or working in the project area located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

6. Result in a safety hazard for people residing or working in the project area that is within the vicinity of a private airstrip.

7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

8. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including wildlands that are adjacent to urbanized areas or where residences are intermixed with wildlands.

Environmental Protection Measures

Chapter 3 provides a complete list and description of environmental protection measures (EPMs) that Hudson Ranch Power II, LLC and Simbol, Inc. have incorporated into their respective projects to avoid or minimize impacts on all resources.

The HR-2 EPMs that are proposed to minimize or avoid hazards and health and safety impacts are as follows:

- HR-2 EPM HAZ-1: Fire Suppression System. This system would reduce impacts from fires occurring at the site which, in turn, would reduce potential harm to workers. The system would include hand-cart carbon dioxide extinguishers, fire hydrants/hose stations, a sprinkler system, and smoke detectors. Personnel would be allowed to smoke only in designated areas. Well sites, construction sites, and access roads would be cleared of all vegetation. The cleared areas would be maintained during drilling, construction, and operations. Water that is used for drilling would also be available for fire-fighting.

- HR-2 EPM HAZ-2: Adherence to Applicable California Occupational Safety and Health Administration Regulations and Standards (training, written procedures, inspections, design, medical surveillance and monitoring). Will prevent or minimize potential impacts by the development of procedures, training, physical inspections and the prescription of some minimum standards to design adequate systems. These requirements address numerous worker safety issues including emergency action/evacuation, fire prevention, confined space entry, fall protection, hearing conservation, respiratory protection, personal protective equipment, lock-out/tag-out, electrical safety, excavation and trenching, hazard communication, ergonomics, first aid, blood borne pathogens, cranes and hoists, vehicle/traffic, chemical exposures.

- HR-2 EPM HAZ-3: Adherence to Guidance by the State of California, CDOGGR, Publication No. M10. Will minimize risks associated with hydrogen sulfide and geothermal steam during drilling and well construction.

- HR-2 EPM HAZ-4: Job Hazard Analyses (JHAs) for Each Job or Task. Will identify any additional hazards associated with a job or task prior to performing that job or task. This will provide an opportunity to evaluate whether additional measures must be taken to minimize impacts from these potential hazards.

- HR-2 EPM HAZ-5: Safety Showers and Eyewash Stations. Will provide a means flushing skin and eyes in cases of chemical splashing, particularly as it pertains to corrosive materials. By providing an immediately available wash station, the contact time and possible injury by these chemicals can be minimized.

- HR-2 EPM HAZ–6: Secondary Containment. Curbs, berms, and concrete pits would be used where accidental releases of hazardous and acutely hazardous materials could occur. Containment areas would be drained to appropriate collection areas or neutralization tanks for recycling or offsite disposal. Traffic barriers would protect piping and tanks from potential traffic hazards.

- HR-2 EPM UTIL-1: Construction Wastes. Solid waste materials (trash) and construction waste would be deposited at an authorized landfill by a disposal contractor. Any petroleum hydrocarbon or hazardous wastes or empty containers/drums that may be generated during construction activities would be either recycled or managed as hazardous waste in conformance with applicable waste management and disposal requirements. Portable chemical sanitary facilities would be used by all personnel during construction. These facilities would be maintained by a local contractor.

- HR-2 EPM UTIL-1: Filter Cake Utilization. Filter cake would be recycled for beneficial use in cement and cement admixture. Before any filter cake material is removed from the plant site, it would be sampled and laboratory-tested. Only when the results demonstrate the material is nonhazardous would material be recycled for beneficial use. Otherwise, it would be transported to an off-site disposal facility authorized to accept the waste.

- HR-2 EPM WQ-3: Brine Pond Monitoring Wells. Potential release from the brine ponds to groundwater would be assessed with a system of monitoring wells placed around the periphery of the ponds.

- HR-2 EPM WQ-4: Storm Water Pond Berm. The storm water retention pond would be surrounded by a berm to prevent flooding.

- HR-2 EPM WQ-5: Casing Shallow Portions of Production and Injection Wells. Casing the shallow portions of the production and injection wells would minimize the potential release of both

construction-related drilling fluids and production-related geothermal brines to the shallow groundwater aquifer.

- HR-2 EPM WQ-6: Protective Pipeline Design and Detailed Inspection Routine. Production pipelines would be alloy-clad steel pipe. Injection pipelines would be constructed of concrete-lined carbon steel. Both would be routinely inspected to prevent potential releases.

- HR-2 EPM WQ-7: Production Wellheads. Piping at each production wellhead would be equipped with both remotely operated electrical emergency shutoff valves and manual alloy isolation valves to prevent potential releases.

The SmCP-2 EPMs that are proposed to minimize or avoid impacts to hazards and health and safety impacts are as follows:

- SmCP-2 EPM HAZ-1: Protection of Public Health and Safety. In addition to the emergency contingency plans, public health and safety would be protected through instructions to work crews and contractors regarding compliance with regulations.

- SmCP-2 EPM HAZ–2: Adherence to Applicable California Occupational Safety and Health Administration Regulations and Standards. Implementation of Standards safety training, written procedures, inspections, design, medical surveillance, and monitoring would prevent or minimize potential impacts from plant operations. These requirements address numerous worker safety issues including emergency action/evacuation, fire prevention, confined space entry, fall protection, hearing conservation, respiratory protection, personal protective equipment, lock-out/tag-out, electrical safety, excavation and trenching, hazard communication, ergonomics, first aid, blood borne pathogens, cranes and hoists, vehicle/traffic, chemical exposures.

- SmCP-2 EPM HAZ–3: Job Hazard Analyses (JHAs) for Each Job or Task. JHAs would identify any additional hazards associated with a job or task prior to performing that job or task. This would provide an opportunity to evaluate whether additional measures must be taken to minimize impacts from these potential hazards.

- SmCP-2 EPM HAZ–4: Safety Showers and Eyewash Stations. These provide a means for flushing skin and eyes in cases of chemical splashing, particularly as it pertains to corrosive materials. By providing an immediately available wash station, the contact time and possible injury by these chemicals can be minimized.

- SmCP-2 EPM HAZ–5: Protective Pipeline Design and Detailed Inspection Routine. Brine delivery pipelines would be constructed of appropriate materials to prevent accidental releases. The pipelines would be routinely inspected to prevent potential releases.

- SmCP-2 EPM HAZ–6: Secondary Containment. Curbed areas would be used where accidental releases of hazardous materials could occur. Containment areas would be drained to appropriate

collection areas or neutralization tanks for recycling or offsite disposal. Traffic barriers would protect piping and tanks from potential traffic hazards.

- SmCP-2 EPM HAZ–7: Fire Suppression System. The use of fire extinguishers, fire hydrants/hose stations, sprinkler systems if needed, and smoke detectors would reduce impacts from fires occurring at the site which, in turn, would reduce potential harm to workers.

- SmCP-2 EPM UTIL-1: Construction Wastes. Solid waste materials (trash) and construction waste would be deposited at an authorized landfill by a disposal contractor. Any petroleum hydrocarbon or hazardous wastes or empty containers/drums that may be generated during construction activities would be either recycled or managed as hazardous waste in conformance with applicable waste management and disposal requirements. Portable chemical sanitary facilities would be used by all personnel during construction. These facilities would be maintained by a local contractor.

METHODOLOGY

County of Imperial maps were reviewed to determine the Projects' proximity to schools and airports. In addition, the potential risk of fire based on local hazard maps was considered, and local agency resources were researched related to relevant emergency response plans and airport land use plans. Emergency Plans and Hazard Management Plans and evacuation routes for the County were reviewed.

To aid in evaluation of impacts from Project-related contamination, sites with known and potential contamination were researched by reviewing online environmental databases and identifying land uses associated with hazardous material use.

This section analyzes the impacts associated with the proposed Projects' and the risk of upset to potential hazardous substances and/or waste contamination that may exist on the Project sites. This analysis is primarily based upon information obtained from the County of Imperial General Plan, Geotechnical Report (Appendix G), Phase I Environmental Site Assessment prepared for the Hudson Ranch II Geothermal Project (Appendix H-1), an Agency Database Record Search prepared for the Simbol Calipatria Plant II Project (Appendix H-2), and a WSA (Appendix I).

HR-2 IMPACTS AND MITIGATION MEASURES

Impact HAZ-1: The HR-2 Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

The HR-2 Project would involve the transport, handling, use and disposal of hazardous materials including unleaded gasoline, diesel fuel, oils, lubricants (e.g., motor oils, transmission fluids, and hydraulic fluids), paints, adhesives, solvents and other substances.

Transport Hazardous Materials

During construction and operations of the HR-2 Project, hazardous materials would be transported to and from the Project site. Traffic barriers would protect piping and tanks from potential traffic hazards. Hudson Ranch II LLC would be required to follow all applicable federal, state, and local laws and regulations. Transportation would be subject to licensing and inspection by the California Highway Patrol.

Use of Hazardous Materials

During construction and operation the HR-2 Project, hazardous materials would be stored in chemical storage containers. Secondary containment would be provided in all petroleum hydrocarbon and hazardous material storage areas. In general, all areas where hazardous materials are stored would have concrete ponds, be bermed or have curbs in order to prevent accidental releases (HR-2 EPM HAZ-6).

Hudson Ranch II LLC would develop and implement a Stormwater Pollution Prevention Plans (SWPPP) and a Hazardous Materials Business Plan (HMBP) that would include procedures for the following: Hazardous materials handling, use, and storage; Emergency Response; Spill Prevention Control and Countermeasure (SPCC) Plan; Employee training; and Reporting and record keeping.

All personnel working with chemicals would be trained in proper handling and emergency response to chemical spills or accidental releases. Adherence to Applicable California Occupational Safety and Health Administration Regulations and Standards (HR-2 EPM HAZ–2); Job Hazard Analyses (JHAs) for Each Job or Task (HR-2 EPM HAZ–3); Safety Showers and Eyewash Stations (HR-2 EPM HAZ–4); and Protective Pipeline Design and Detailed Inspection Routine (HR-2 EPM HAZ–5) would ensure the proper storage, handling of hazardous materials and would protect the workforce during construction and operation of the proposed Project.

Disposal of Hazardous Materials

Small quantities of hazardous wastes would be generated over the course of construction. These may include paint, spent solvents, and spent welding materials. During normal operations, less than 5 percent of the filter cake is projected to be characterized as hazardous waste as a result of elevated concentrations of heavy metals.

Any hazardous wastes generated would be collected in hazardous waste accumulation containers near the point of generation and moved daily to the contractor's 90-day hazardous waste storage area located on-site. The accumulated waste would subsequently be delivered to an authorized waste management facility. Hazardous wastes would be recycled or managed and disposed of properly in waste disposal facility authorized to accept the waste (HR-2 EPM UTIL-1). The storage, containment, handling, and use of these chemicals would be managed in accordance with applicable laws, ordinances, regulations, and standards.

Compliance with applicable manufacturer specifications as well as federal and state regulations regarding hazardous materials/wastes is designed to ensure safety during the use, transport, storage, and disposal of hazardous materials. With the implementation of HR-2 EPMs HAZ-2 through HAZ-6 and UTIL-1, Impact HAZ-1 would be less than significant.

Mitigation Measures: None required.

Impact HAZ-2: The HR-2 Project would 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.

Hazards to the public or the environment could occur due to upset or accident involving the release of hazardous materials used, stored, or transported as part of the proposed Project. During construction, there could be accidental release or spills of hazardous materials (e.g., petroleum, oil, lubricants, paints, solvents, and herbicides). As discussed in Impact HAZ-1 above, multiple precautions would be implemented to ensure worker safety (EPMs HR-2 HAZ-2 through HAZ-5).

During operations, upset conditions could result in a release of hydrogen sulfide contained in geothermal fluid or steam or an overflow of brine from multiple locations. To prevent a brine release, the brine that overflows the clarifiers or the thickener would be directed to the brine pond for temporary containment after which it would be processed for reinjection. All hazardous materials would be stored in chemical storage facilities designed for the characteristics of the chemicals to be stored. Diesel tanks with dual wall containment would be used for back up generators. Each area would have secondary containment equivalent to 110% of the volume of the material it stores. Therefore, if there was an accidental spill or release, these materials should be contained within the secondary containment area (HR-2 EPM HAZ-6).

While there is the potential for a significant hazard to the public or the environment following reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, compliance with federal regulations, and those required by the State of California and County of Imperial and implementation of Simbol, Inc.'s Emergency Response Plan (ERP) and Hazardous Materials Business Plan (HMBP) would help prevent upset conditions, ensure spills would be avoided, and immediately address spills or upset conditions if they occurred. All personnel working with chemicals would be trained in proper handling and emergency response to chemical spills or accidental releases.

The potential for upset and accidents involving the release of hazardous materials into the environment would be reduced through implementation SmCP-2 EPMs HAZ-2 through HAZ-6. Therefore, Impact HAZ-2 would be less than significant with no mitigation required.

Mitigation Measures: None required.

Impact HAZ-3: The HR-2 Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.

There are no schools located with 0.25 miles of the HR-2 Project site. Therefore, no impact to existing or proposed schools is anticipated from the construction and operation and maintenance of the Project.

Mitigation Measures: None required.

Impact HAZ-4: The HR-2 Project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

The proposed Project components would not be located close to known hazardous waste sites or non-contaminated permitted facilities, including gas stations, underground storage tanks, and land disposal sites. Hudson Ranch Power II, LLC has conducted a Phase 1 environmental site assessment (Appendix H-1) and no recognized environmental conditions were identified on or within 1 mile of the proposed Project site (see Table 4.7-1). Prior to commencement of any grading activities, Hudson Ranch Power II, LLC would be required, by law, to use an Underground Service Alert organization to identify the location of underground utilities and pipelines. Therefore, no impact would result under this criterion.

Impact HAZ-5: The Project would not be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, and the Project would not result in a safety hazard for people residing or working in the Project area.

The Calipatria Municipal Airport is the airport closest to the Project site and is located approximately 4.8 miles south of the site. The Project site is not located within the boundaries of an airport land use plan or within 2 miles of a public airport; thus, Project implementation would not introduce any aviation safety hazards for individuals working or residing in the Project area. Therefore, no impact would result under this criterion.

Mitigation Measures: None required.

Impact HAZ-6: The HR-2 Project is not located within the vicinity of a private airstrip, and the Project would not result in a safety hazard for people residing or working in the Project area.

The nearest private airport, O'Connell Brothers Airport, is located 16.1 miles south of the Project site; thus, Project implementation would not introduce any aviation safety hazards within the vicinity of the O'Connell Brothers Airport for individuals working or residing in the Project area. Therefore, no impact would occur under this criterion.

Mitigation Measures: None required.

Impact HAZ-7: The HR-2 Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

During well drilling, construction and operation activities that include equipment delivery and transport of large equipment including drill rigs would not interfere with emergency routes nor necessitate lane closures. Hudson Ranch Power II, LLC would implement best management practices (BMPs), such as the use of flaggers, identification of detours, and communications with stakeholders. Therefore, no impact would occur to emergency response plans and evacuation routes.

Mitigation Measures: None required.

Impact HAZ-8: The HR-2 Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The proposed Project would be constructed in a very low fire hazard area. Construction areas for the proposed Project would be grubbed of vegetation and graded prior to the staging of equipment, which would lessen the potential for a construction vehicle to start a fire. The risk of fire danger from the Project would be related to the combustion of native materials due to smoking, refueling, and operating vehicles and other equipment off roadways. Brushing activities for vegetation control and removal during construction and electrical arcing from power lines can create a fire hazard.

During construction and operation, the HR-2 Project would implement fire suppression measures (HR-2 EPM HAZ-1) that would reduce the risk of fires that could be caused by the combustion of native materials due to smoking, refueling, or operating vehicles and other equipment off roadways. Well sites, construction sites, and access roads would be cleared of all vegetation. The cleared areas would be maintained during drilling, construction and operations. Water used for drilling would also be available for fire-fighting to further reduce impacts from fires occurring at the Project site, thereby reducing potential harm to workers.

The fire protection system for the proposed Project would consist of an underground fire main and surface distribution equipment such as yard hydrants and hose houses, monitors around the perimeter of the cooling tower, automatic sprinklers for the turbine generator and auxiliary equipment. The Imperial County Fire Department and the Niland Fire Department would also be consulted as appropriate to review and approve the proposed firefighting water and freshwater pond facilities. With the implementation of HR-2 EPM HAZ-1 potential impacts from wildland fires would be less than significant.

Mitigation Measures: None required.

SMCP-2 IMPACTS AND MITIGATION MEASURES

Impact HAZ-1: The SmCP-2 Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

The SmCP-2 Project would involve the transport, handling, use and disposal of hazardous materials including unleaded gasoline, diesel fuel, oils, lubricants (e.g., motor oils, transmission fluids, and hydraulic fluids), paints, adhesives, solvents and other substances.

Transport Hazardous Materials

During all phases of the SmCP-2 Project, moderate quantities of hazardous materials, including fuel and chemicals, would be transported to the Project site. Petroleum hydrocarbon fuels, chemical reagents, water treatment chemicals, and smaller quantities of other potentially hazardous chemicals would be transported to the plant site during operations. The Project would also generate hazardous material products, including hydrochloric acid, and hazardous wastes. These materials would be transported to and from the Project site by licensed hazardous material carriers and hazardous waste transporters.

During plant operations, the proposed SmCP-2 Project would include truck deliveries of reagent chemicals, cooling tower treatment chemicals, consumptive media, product packaging materials, and fuel. It also includes the outgoing shipping of products and wastes. Multiple products would be packaged for off-site truck shipment to market. Products would be transported by freight truck on existing roadways to shipping distribution point(s) in the San Diego or greater Los Angeles areas.

Hazardous material carriers and hazardous waste transporters are required by law to adhere to applicable local, state and federal regulations regarding proper truck signage indicating the materials being transported, carrying a shipping/waste manifest of the types and concentrations of materials being transported and other appropriate measures. Simbol, Inc. would communicate with the locally responsible emergency response agencies prior to the shipment of any bulk hazardous materials to or from the Project site. Hazardous material carriers are also responsible for their loads, reporting spills, and initiating appropriate emergency responses to releases of any transported hazardous materials from the point of origin up to the destination of the hazardous material delivery.

Use of Hazardous Materials

During construction and operation the SmCP-2 Project, hazardous materials would be stored in chemical storage containers. Secondary containment would be provided in all petroleum hydrocarbon and hazardous material storage areas. In general, all areas where hazardous materials are stored would have concrete ponds, be bermed or have curbs in order to prevent accidental releases. Containment areas would also be drained to appropriate collection areas or neutralization tanks for recycling or for off-site disposal (SMCP-2 EPM HAZ-6). A Hazardous Waste Permit, in compliance with Chapters 14 and 20 of CCR Title 22 would be obtained from the Department of Toxic Substance Control, for the containment areas.

Simbol, Inc would develop and implement a Stormwater Pollution Prevention Plans (SWPPP) and a Hazardous Materials Business Plan (HMBP) that would include procedures for the following: Hazardous materials handling, use, and storage; Emergency Response; Spill Prevention Control and Countermeasure (SPCC) Plan; Employee training; and Reporting and record keeping.

All personnel working with chemicals would be trained in proper handling and emergency response to chemical spills or accidental releases. Adherence to Applicable California Occupational Safety and Health Administration Regulations and Standards (SmCP-2 EPM HAZ–2); Job Hazard Analyses (JHAs) for Each Job or Task (SmCP-2 EPM HAZ–3); Safety Showers and Eyewash Stations (SmCP-2 EPM HAZ–4); and Protective Pipeline Design and Detailed Inspection Routine (SmCP-2 EPM HAZ–5) would ensure the proper storage, handling of hazardous materials and would protect the workforce during construction and operation of the proposed Project.

Disposal of Hazardous Materials

Hazardous materials expected to be used during construction include paints, oil and lubricants, solvents, and welding materials. Used oil will be recycled, and oil or heavy metal contaminated materials (e.g., filters) requiring disposal will be transported to an off-site waste disposal facility authorized to accept the waste. Scale from pipe and equipment cleaning operations will be disposed of in a similar manner.

After plant operations begins, most of the iron-silica stream may be converted to a product stream(s); however, a portion of the iron-silica material will be managed as hazardous waste. Similarly, the lead sulfide waste extracted from the brine stream will also be initially managed as hazardous waste. Any hazardous wastes generated would be collected in hazardous waste accumulation containers near the point of generation and moved daily to the contractor's 90-day hazardous waste storage area located on-site. The accumulated waste would subsequently be delivered to an authorized waste management facility.

Hazardous wastes would be recycled or managed and disposed of properly in waste disposal facility authorized to accept the waste (SMCP-2 EPM UTIL-1). The storage, containment, handling, and use of these chemicals would be managed in accordance with applicable laws, ordinances, regulations, and standards.

Compliance with applicable manufacturer specifications as well as federal and state regulations regarding hazardous materials/wastes is designed to ensure safety during the use, transport, storage, and disposal of hazardous materials.

With the implementation of SMCP-2 EPMs HAZ-2 through HAZ-5 and UTIL-1 Impact HAZ-1 would be less than significant.

Mitigation Measures: None required.

Impact HAZ-2: The SmCP-2 Project would 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.

Hazards to the public or the environment could occur due to upset or accident involving the release of hazardous materials used, stored, or transported as part of the proposed Project. During construction, there could be accidental release or spills of hazardous materials (e.g., petroleum, oil, lubricants, paints, solvents, and herbicides). As discussed in Impact HAZ-1, multiple precautions would be implemented to ensure worker safety (EPMs HR-2 HAZ-2 through HAZ-5).

During operations, upset conditions could result in a release of hydrogen sulfide contained in geothermal fluid or steam or an overflow of brine from multiple locations. To prevent a brine release, the brine that overflows the clarifiers or the thickener would be directed to the brine pond for temporary containment after which it would be processed for reinjection. All hazardous materials would be stored in chemical storage facilities designed for the characteristics of the chemicals to be stored. Diesel tanks with dual wall containment would be used for back up generators. Each area would have secondary containment equivalent to 110% of the volume of the material it stores. Therefore, if there was an accidental spill or release, these materials should be contained within the secondary containment area (HR-2 HAZ-6).

While there is the potential for a significant hazard to the public or the environment following reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, compliance with federal regulations, and those required by the State of California and County of Imperial and implementation of Simbol, Inc.'s Emergency Response Plan (ERP) and Hazardous Materials Business Plan (HMBP) would help prevent upset conditions, ensure spills would be avoided, and immediately address spills or upset conditions if they occurred. All personnel working with chemicals would be trained in proper handling and emergency response to chemical spills or accidental releases.

The potential for upset and accidents involving the release of hazardous materials into the environment would be reduced through implementation SmCP-2 EPMs HAZ-2 through HAZ-6. Therefore, Impact HAZ-2 would be less than significant with no mitigation required.

Mitigation Measures: None required.

Impact HAZ-3: The SmCP-2 Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.

There are no schools located with 0.25 miles of the HR-2 Project site. Therefore, no impact to existing or proposed schools is anticipated from the construction and operation and maintenance of the Project.

Mitigation Measures: None required.

Impact HAZ-4: The SmCP-2 Project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

The proposed Project components would not be located near known hazardous waste sites or non-contaminated permitted facilities, including gas stations, underground storage tanks, and land disposal sites. Simbol, Inc. has conducted a Phase 1 environmental site assessment (Appendix H-2) and no recognized environmental conditions were identified within 1 mile of the proposed Project site (see Table 4.7-1). Prior to commencement of any grading activities, Simbol, Inc. would be required, by law, to use an Underground Service Alert organization to identify the location of underground utilities. Therefore, no impact would result under this criterion.

Impact HAZ-5: The SmCP-2 Project would not be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, and the Project would not result in a safety hazard for people residing or working in the Project area.

The Calipatria Municipal Airport is the closest airport to the Project site and is located approximately 4.8 miles south of the site. The Project site is not located within the boundaries of an airport land use plan or within 2 miles of a public airport; thus, Project implementation would not introduce any aviation safety hazards for individuals working or residing in the Project area. Therefore, no impact would occur under this criterion.

Mitigation Measures: None required.

Impact HAZ-6: The SmCP-2 Project is not located within the vicinity of a private airstrip, and the Project would not result in a safety hazard for people residing or working in the Project area.

The nearest private airport, O'Connell Brothers Airport, is located 16.1 miles south of the Project site; thus, Project implementation would not introduce any aviation safety hazards within the vicinity of the O'Connell Brothers Airport for individuals working or residing in the Project area. Therefore, no impact would occur under this criterion.

Mitigation Measures: None required.

Impact HAZ-7: The SmCP-2 Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

During construction and operation activities that include equipment delivery and transport of large equipment would not interfere with emergency routes nor necessitate lane closures. Simbol, Inc. would implement best management practices (BMPs), such as the use of flaggers, identification of detours, and communications with stakeholders. Therefore, no impact would occur to emergency response plans and evacuation routes.

Mitigation Measures: None required.

Impact HAZ-8: The SmCP-2 Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The proposed Project would be constructed in a very low fire hazard area. Construction areas for the proposed Project would be grubbed of vegetation and graded prior to the staging of equipment, which would lessen the potential for a construction vehicle to start a fire. The risk of fire danger from the Project would be related to the combustion of native materials due to smoking, refueling, and operating vehicles and other equipment off roadways. Brushing activities for vegetation control and removal during construction and electrical arcing from power lines can create a fire hazard.

During construction, the SmCP-2 Project would implement Fire Prevention measures (SmCP-2 EPM HAZ-1) that would reduce the risk of fires that could be caused by the combustion of native materials due to smoking, refueling, or operating vehicles and other equipment off roadways. During operation, a Fire Suppression System (SmCP-2 EPM HAZ-7) that would further reduce impacts from fires occurring at the Project site, thereby reducing potential harm to workers.

The fire protection system for the proposed Project would consist of an underground fire main and surface distribution equipment such as yard hydrants

and hose houses, and monitors around the perimeter of the cooling tower. The Imperial County Fire Department and the Niland Fire Department would also be consulted as appropriate to review and approve the proposed firefighting water and freshwater pond facilities. With the implementation of SmCP-2 EPM HAZ-1 and HAZ-7 potential impacts from wildland fires less than significant.

Mitigation Measures: None required.

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