D.6 Hazardous Materials

This section provides information on the environmental and safety hazards associated with non-radioactive hazardous materials used, stored, and generated during the transport and installation of the RSGs at DCPP, as well as the removal, transport, and storage of the OSGs. It should be noted that the NRC has sole jurisdiction over the regulation of radioactive hazards, safety issues, and radioactive waste handing and storage. Radiation hazards and nuclear safety, including the possession, handling, storage, and transportation of radioactive materials, are discussed in Section D.12, System and Transportation Safety.

D.6.1 Environmental Setting for the Proposed Project

Definition of Hazardous Materials

Materials classified as hazardous by the federal government and State of California are commonly used by industrial activity and would be a concern during RSG transport, staging, and installation, and the removal, transport, and storage of the OSGs at DCPP. The term hazardous material is defined by California Health and Safety Code (H&SC) Section 25501(n) and (o) as:

> *Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. 'Hazardous materials' include, but are not limited to, hazardous substances, hazardous wastes, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.*

Fuels, oils, lubricants, adhesives, cleansers, and pressurized and containerized gases such as breathing air, nitrogen, and helium, are all considered hazardous materials. The most common examples of the types of materials and wastes considered hazardous are hazardous chemicals defined by four characteristics; toxicity, ignitability, corrosivity, and reactivity. The characteristics of toxicity, ignitability, corrosivity, and reactivity are defined in Title 22 CCR §66261.20-66261.24 and are summarized below:

Toxic Substances: Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability, or even death. For example, such substances can cause disorientation, acute allergic reactions, asphyxiation, skin irritation, or other adverse health effects if human exposure exceeds certain levels. The level depends on the substances involved and is chemical-specific. Carcinogens (substances that can cause cancer) are a special class of toxic substances. Examples of toxic substances include benzene (a component of gasoline and a suspected carcinogen) and methylene chloride (a common laboratory solvent and a suspected carcinogen).

Ignitable Substances: Ignitable substances are hazardous because of their ability to burn. Gasoline, hexane, and natural gas are examples of ignitable substances.

Corrosive Materials: Corrosive materials can cause severe burns. Corrosives include strong acids and bases such as sodium hydroxide (lye) or sulfuric acid (battery acid).

Reactive Materials: Reactive materials may cause explosions or generate toxic gases. Explosives, pure sodium or potassium metals (which react violently with water), and cyanides are examples of reactive materials.

Hazardous materials concerns are related to the potential for fires, explosions, or the accidental exposure, acute inhalation or dermal contact with a hazardous material in the event of an unauthorized release. An unauthorized release is defined as:

- Unauthorized disposal or release means any disposal of a hazardous waste or substance that is in violation of the provisions of Chapter 6.5 (commencing with Section 25100) of Division 20 of the California Health and Safety Code (H&SC), any unauthorized release within the meaning of H&SC Section 25281, which includes any spill or overfill, or any release of a hazardous waste or substance which is not a release authorized or permitted within the meaning of H&SC Section 25326.
- Under H&SC Section 25320, a "release" is any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.
- A "release" does not include (as in H&SC Section 25321): (a) any release that results in exposure to persons solely within a workplace, with respect to a claim those exposed persons may assert against their employer; (b) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine; (c) release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954 (42 U.S.C. Sec. 2011, et seq.), if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under Section 2210 of Title 42 of the United States Code, or for the purposes of Section 104 of the federal act (42 U.S.C. Sec. 9604) or any other response action, any release of source byproduct, or special nuclear material from any processing site designated under Section 7912(a)(1) or 7942(a) of Title 42 of the United States Code, which sections are a part of the Uranium Mill Tailings Radiation Control Act of 1978; and (d) the normal application of fertilizer, plant growth regulants, and pesticides.

Classification of Hazardous Materials

Hazardous material categories associated with routine operation of DCPP include nine classifications. The classifications are provided in Table D.6-1 with examples, uses, and potential hazards.

Table D.6-1. DCPP Hazardous Materials Summary

Substance	Examples	Typical Use(s)	Hazard(s)
Solvents	Alcohol, ether, toluene, hexane, trichloroethylene	Lab chemicals, paint removers, and degreasers	Flammable, some explosive; toxic; damage to skin and respiratory tract; systemic damage to liver, kidneys nervous system, etc.
Oxidizers	Boric, chromic, permanganic, sulfuric acids, silver nitrate, potassium dicholorate, ammonium persulfate	Lab chemicals	Stimulates combustion of organic materials
Compressed Gases	Methane, oxygen, and nitrogen	Labs, welding, and maintenance	Flammable, some explosive (with potential for propellant effect) and some toxic
Corrosives	Boric, chromic, dipicolinic, oxalic, permanganic, sulfuric acids, sodium hydroxide, and ammonium hydroxide	Lab chemicals, cleaning agents, paints, paint thinners, and freon	Dermal contact (damage to skin, eyes and respiratory tract); some react to produce fire, explosion, or toxic fumes
Reactives	Lithium hydroxide, alkyl metals (sodium, potassium), and hydrides	*pH* Balancing	Explosive (with or without detonation); toxic fumes; explodes with exposure to water
Toxics	Metals, chlorinated hydrocarbons (solvents)	Lab chemicals, biocides, pesticides, dyes, and paints	Potential for acute or chronic systemic damage or death, cancer, infertility, birth defects
Radioactivity	Radionuclides (radioisotopes), uranium	Reactor	Potential for acute or chronic systemic damage, cancer, infertility, birth defects
Fuels	Gasoline, diesel, and waste oil, lubricants	Vehicles, Generators, Machinery	Flammable, explosive; toxic; dermal contact (damage to skin), eyes, and respiratory tract

Source: Leonard, 2002, DCPP, 2001.

Regional Overview

The setting for the Proposed Project includes the Port San Luis, the community of Avila Beach, and the DCPP site. Routine operations at DCPP and activities at Port San Luis involve hazardous material storage and use. Existing conditions affected by historic activities include the potential for soil or groundwater contamination by hazardous substances. Potential sources of hazardous materials include leaking tanks, surface runoff from contaminated sites, and migration of contaminated groundwater plumes. Information on the existing conditions is tracked by regulatory agencies in a range of databases.

A database search of available regulatory environmental records was conducted by Environmental Data Resources, Inc. (EDR, 2004). The EDR report meets the government records search requirements of the Standard Practice for Environmental Site Assessments, E 1527-00, of the American Society for Testing and Materials (ASTM). The search was conducted to identify sites listed in regulatory files as those that:

- Produce and/or store hazardous materials
- Generate hazardous waste
- Have had incidents or spills involving significant quantities of hazardous materials
- Have documented contaminated groundwater or leaking storage tanks
- Could cause other potential cumulative impacts.

The regulatory agencies that oversee hazardous materials management are described in more detail in Section D.6.2 below. Table D.6-2 provides a summary of the sites identified during the EDR database search and shows the results by agency, program, or specific database. The results of this search show that while the DCPP site is a target property listed in many databases, there are no other listed active hazardous material sites within one mile of the DCPP site.

Table D.6-2. DCPP Site Identification Database Search Results

Database	Source Agency	Search Dist. (miles)	Target Property (DCPP)	Number of Facilities (miles)			
				<1/8	1/8-1/4	1/4-1/2	1/2-1
Facilities Located within One Mile of DCPP – Database Listings							
CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System contains data on potential hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons	USEPA	0.5	No	0	0	0	—
CERCLIS-NFRAP – CERCLIS No further remedial action planned	USEPA	0.25	Yes	0	0	—	—
CONSENT – Superfund Consent Decrees. Major legal settlements that establish responsibility and standards for cleanup at NPL sites	USEPA	1.00	No	0	0	0	0
CORRACTS – RCRA Corrective Action Sites identifies hazardous waste handlers with RCRA corrective action reports	USEPA	1.00	Yes	0	0	0	0
Delisted NPL – Delisted NPL sites	USEPA	1.00	No	0	0	0	0
ERNS – Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances	USEPA /NTIS[1]	TP[2]	Yes	—	—	—	—
FINDS – The Facility Index System contains both facility information and pointers to other sources that contain more detail	USEPA	TP	Yes	—	—	—	—
FTTS – The Facility Tracking System tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA	USEPA	TP	No	—	—	—	—
HMIRS – Hazardous Materials Information Reporting System contains hazardous material spill incidents reported to DOT	USDOT	TP	No	—	—	—	—
MINES – Mines Master Index File	MS&HA[3]	0.25	No	0	0	—	—
MLTS – The Material License Tracking System contains a list of all facilities that posses or use radioactive materials and which are subject to NRC licensing requirements	NRC	TP	No	—	—	—	—
NPL – The National Priority List sites is a subset of CERCLIS and identifies sites for priority cleanup under the Superfund Program	USEPA	1.00	No	0	0	0	0
NPL liens – The USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of Superfund liens	USEPA	TP	No	—	—	—	—
PADS – PCB Activity Database System. Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify USEPA	USEPA	TP	No	—	—	—	—
Proposed NPL – Proposed National Priority List sites	USEPA	1.00	No	0	0	0	0
RAATS – RCRA Administrative Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the USEPA	USEPA	TP	No	—	—	—	—
RCRIS (TSD, SQG & LQG) – Resource Conservation and Recovery Information System includes selective information on sites, which generate, transport, store, treat and/or dispose of hazardous waste as defined by RCRA	USEPA /NTIS	0.25 – 0.50	Yes	0	0	0	—

Table D.6-2. DCPP Site Identification Database Search Results

Database	Source Agency	Search Dist. (miles)	Target Property (DCPP)	Number of Facilities (miles)			
				<1/8	1/8-1/4	1/4-1/2	1/2-1
ROD – Record of Decision mandates a permanent remedy at an NPL site and contain technical and health information to aid in the cleanup	USEPA	1.00	No	0	0	0	0
TRIS – Toxic Chemical Release Inventory System. TRIS identifies facilities, which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313	USEPA	TP	No	—	—	—	—
TSCA – Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on TSCA chemical substance inventory list	USEPA	TP	No	—	—	—	—
Target Property and Surrounding Sites – Summary of State/Local Database Listings							
AST - Aboveground Petroleum Storage Tank Facilities	SWRCB	TP	Yes	—	—	—	—
AWP – Annual Work Plan Sites. Known Hazardous Waste Sites	Cal EPA	1.0	No	0	0	0	0
CA BOND EXP. PLAN – Bond Expenditure Plan. Site-specific expenditure plan for the appropriation of Hazardous Substance Cleanup Bond Act funds	DHS	1.0	No	0	0	0	0
CA FID UST- The California Facilities Information Database for Underground Storage Tanks contains historic listing of active and inactive storage tank locations	Cal EPA	0.25	No	0	0	—	—
CAL-SITES – Cal-Site database contains potential or confirmed hazardous substance release properties	DTSC	1.00	No	0	0	0	0
CA WDS – Sites that have been issued waste discharge requirements	SWRCB	TP	Yes	—	—	—	—
CA SLIC – California Spills, Leaks, Investigations and Cleanup Program identifies active toxic site investigations	RWQCB	0.50	No	0	0	0	—
CLEANERS – Cleaner Facilities. A list of drycleaner related facilities that have EPA ID numbers	DTSC	0.25	No	0	0	—	—
CORTESE – This database identifies public drinking wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release, and all solid waste disposal facilities from which there is known migration	Cal EPA	1.00	No	0	0	0	0
CHMIRS – California Hazardous Material Incident Report System contains information on reported hazardous material incidents	OES	1.00	No	0	0	0	0
DEED – List of Deed Restrictions. The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposure to hazardous waste	DTSC	TP	No	—	—	—	—
HAZNET – Hazardous Waste Information System. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC	Cal EPA	0.25	No	0	0	—	—
HIST UST – The Hazardous Substance Container Database is a historic listing of UST sites	SWRCB	0.25	Yes	0	0	—	—
LUST – The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents	SWRCB	0.50	No	0	0	0	—
NOTIFY 65 – Proposition 65 Records	SWRCB	1.00	No	0	0	0	0
TOXIC PITS – The Toxic Pits Cleanup Act Sites database identifies sites suspected of containing hazardous substances where cleanup has not yet been completed	SWRCB	1.00	Yes	0	0	0	0
SWF/LF (SWIS) – Solid Waste Information System. Lists active, closed, and inactive landfills that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites	IWMB[4]	0.5	No	0	0	0	—

Table D.6-2. DCPP Site Identification Database Search Results

Database	Source Agency	Search Dist. (miles)	Target Property (DCPP)	Number of Facilities (miles)			
				<1/8	1/8-1/4	1/4-1/2	1/2-1
UST – Active UST Facilities	SWRCB	0.25	No	0	0	—	—
WMUDS/SWAT – The Water Management Unit Database/Soils and Water Assessment Tool used by SWRCB and RWQCB for program tracking and inventory of waste management units	SWRCB	0.50	No	0	0	0	—
Coal Gas - The existence and location of coal gas sites	Cal EPA	0.25	No	0	0	—	—

Source: EDR, 2004.
1. NTIS: National Technical Information Service
2. TP: Target Property; DCPP facility is a target property in the database
3. MS&HA: Mine Safety and Health Administration
4. IWMB: Integrated Waste Management Board

The results of the database search for evidence of historic incidents, spills, or contamination at DCPP reveal a number of past records of releases or violations at the site. Table D.6-3 summarizes EDR database listings for DCPP property. Consultation with the Central Coast Regional Water Quality Control Board (~~Coastal Central~~ Central Coast RWQCB), which has regulatory responsibility for DCPP, indicated no regulatory cases currently exist (Kukol, 2004a). The databases show that many of the recorded releases are more than two to three years old. The precise location and current status of the regulatory items listed Table D.6-3 are unknown. It is likely that most or all of the past releases have been appropriately managed and that they no longer pose a hazard.

In summary, a review of the results of the facilities database search (in Table D.6-2) indicates there are no known active hazardous material sites within one mile of the DCPP site. However, there are a number of sites of historic incidents and leaking underground storage tanks (in Table D.6-3) in the vicinity of the Proposed Project.

Table D.6-3. DCPP Regulatory Environmental Database Listings

Database	EPA ID #	State / Local ID #	Notes
ERNS	94365734	NA	Information on reported releases of oil and hazardous substances
ERNS	94362074	NA	Information on reported releases of oil and hazardous substances
ERNS	93342512	NA	Information on reported releases of oil and hazardous substances
ERNS	92291268	NA	Information on reported releases of oil and hazardous substances
FINDS	1000196455	NA	Facility information and pointers to other sources that contain more detail are available
RCRIS-LQG	CAD077966349	NA	There are 24 violations recorded at this site. Last Biennial Reporting was done in 1999
CERCLIS-NFRAP	CAD077966349	NA	This is not a federal facility. Discovery completed 10/4/1991. Preliminary assessment competed 3/25/1992
CORRACTS	CAD077966349	NA	3/21/1992 and 4/10/1992 - CA075LO – Corrective Action Prioritization, facility or area was assigned a low corrective action priority
ERNS	98441031	NA	Information on reported releases of oil and hazardous substances
AST	NA	U001585193	Aboveground Petroleum Storage Tank Facility (ID #24894) including five waste oil tanks and four product diesel tanks
HIST UST	NA	U001585192	Facility ID #64149. Tanks include four product tanks and thirteen waste oil tanks
CA WDS	NA	S105037074	Active industrial facility with a continuous or seasonal discharge that is under Waste Discharge Requirements. Category A complexity. NPDES Number CA0003751

Table D.6-3. DCPP Regulatory Environmental Database Listings

Database	EPA ID #	State / Local ID #	Notes
TOXIC PITS	NA	S100925085	Final Hydro Geological Assessment Review completed 5/6/1988. Closure completed 7/18/1991
ERNS	8713322	NA	Information on reported releases of oil and hazardous substances
ERNS	94415178	NA	Information on reported releases of oil and hazardous substances
ERNS	91466468	NA	Information on reported releases of oil and hazardous substances
ERNS	91210163	NA	Information on reported releases of oil and hazardous substances
ERNS	91206529	NA	Information on reported releases of oil and hazardous substances
ERNS	99646511	NA	Information on reported releases of oil and hazardous substances
ERNS	98419125	NA	Information on reported releases of oil and hazardous substances
ERNS	96490662	NA	Information on reported releases of oil and hazardous substances

Source: EDR 2004.

In the vicinity of the DCPP site, there was a large remediation project (Unocal Front Street) for a spill in Avila Beach. EIR prepares contacted the Central Coast RWQCB and a Unocal representative to discuss the Unocal Front Street project and they indicated that no groundwater monitoring wells exist along, or near, the Avila Beach spill site or on DCPP property (Kukol, 2004a and 2004b; Schwartzbart, 2004a and 2004b). Remediation of contaminated soil at this site is largely complete. Based on this information, contamination from this historic spill is not expected to be present near the DCPP site or any of the Proposed Project activities.

D.6.2 Applicable Regulations, Plans, and Standards

Hazardous materials are subject to numerous statutory laws, regulations, and best management practices at all levels of government. Applicable federal, State, and local regulations, plans, standards, and policies are provided in this section. Organizations with applicable and relevant hazardous materials regulations and/or functions are described in this section.

Following is a listing of the primary federal, State, and local agencies and departments that regulate, manage, or respond to spills or accidents related to hazardous materials.

Federal agencies with hazardous materials oversight:

- Department of Energy (DOE)
- Nuclear Regulatory Commission (NRC)
- Occupational Safety and Health Administration (OSHA or Fed-OSHA)
- U.S. Coast Guard (USCG)
- U.S. Department of Transportation (DOT) Office of Hazardous Material Safety
- U.S. Army Corps of Engineers (USACE)
- U.S. Environmental Protection Agency (USEPA)
- U.S. Fish and Wildlife Service (USFWS)

State agencies with hazardous materials oversight:

- California Coastal Commission (CCC)
- California Department of Fish and Game (DCFG)
- California Department of Health Services (DHS)
- California Department of Transportation (Caltrans)
- California Environmental Protection Agency (Cal EPA)
- California Integrated Waste Management Board (CIWMB)
- California Occupational Safety and Health (Cal-OSHA)
- California Office of Environmental Health and Hazard Assessment (OEHHA)
- Department of Toxic Substances Control (DTSC)
- State Water Resources Control Board; Regional Water Quality Control Board (RWQCB), Region 3 – Central Coast (Central Coast RWQCB)

Local agencies with hazardous materials oversight:

- County of San Luis Obispo Public Health Department – Division of Environmental Health
- San Luis Obispo Air Pollution Control District (SLOAPCD)

A summary of the most pertinent regulations is provided in the following subsections. Not all regulations associated with the organizations listed above are provided.

Federal and State Standards

Federal

Federal hazardous material laws and regulations apply to any hazardous substances used or stored during the project. Hazardous waste laws apply to hazardous waste generated by project activities during the time the project is active. The following federal laws are applicable to the project, but should not be considered comprehensive. Refer also to the DCPP Spill Contingency Plan for a listing of specific federal and State regulations.

Hazardous Waste Handling Requirements

Resource Conservation and Recovery Act (RCRA) and Associated Hazardous and Solid Waste Amendments (HSWA), 40 CFR 260. Implementation of RCRA resulted in the creation of a major federal hazardous waste regulatory program that is administered by the USEPA. Under RCRA, the USEPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the concept of regulating hazardous wastes from generation through disposal. HSWA specifically prohibits the use of certain techniques for the disposal of some hazardous wastes. Under RCRA, individual states may implement their own hazardous waste programs instead of RCRA, as long as the state program is at least as stringent as the federal RCRA requirements. USEPA approved California's program to implement federal hazardous waste regulations on August 1, 1992.

Asbestos and Lead

National Emissions Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 61 Subpart M. Under Subpart M, an asbestos containing materials (ACM) survey must be performed prior to renovation or demolition activities. Notification of the lead agency (SLOAPCD) is required 14 days prior to the start

of work (disturbance of ACM). Additional federal and state-level asbestos requirements related to OSHA standards in 29 CFR 1926.1101 are covered by the Asbestos Construction Standard, Title 8, CCR Section 1529, which is described separately below.

Worker Protection Rule, 40 CFR 763, Subpart G, and 29 CFR 1910.1001. This rule provides worker protection measures through engineering controls, worker training, labeling, respiratory protection, and waste management, and sets the permissible exposure level (PEL) for asbestos. The definition of ACM is also provided in these regulations.

Emergency Planning

Emergency Planning and Community Right-to-Know Act (EPCRA). Under the Emergency Planning and Community Right-to-Know Act (EPCRA), or Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), the USEPA requires local agencies to regulate the storage and handling of hazardous materials and requires development of a plan to mitigate the release of hazardous materials. Businesses that handle any of the specified hazardous materials must submit to government agencies (i.e., fire departments), an inventory of the hazardous materials, an emergency response plan, and an employee training program. The business plans must provide a description of the types of hazardous materials/waste onsite and the location of these materials. The information in the business plan can then be used in the event of an emergency to determine the appropriate response action, the need for public notification, and the need for evacuation.

Hazardous Materials Management Planning

Section 112(r) of the Clean Air Act Amendments of 1990, 40 CFR 68. The USEPA requires facilities that handle listed regulated substances to develop Risk Management and Prevention Programs (RMPPs) to prevent accidental releases of these substances. Stationary sources with more than a threshold quantity of a regulated substance shall be evaluated to determine the potential for and impacts of accidental releases from that covered process. Under certain conditions, the owner or operator of a stationary source may be required to develop and submit an RMPP. RMPPs consist of three main elements: a hazard assessment that includes offsite consequences analyses and a five-year accident history; a prevention program; and an emergency response program. RMPPs for existing facilities were required to be submitted in 1999 and must be updated every 5 years.

National Contingency Plan Requirements

Spill Prevention Control and Countermeasures Plans (SPCCP), 40 CFR 112.3 and 112.7. Facilities that store large volumes of hazardous materials are required to have a Spill Prevention Containment and Countermeasures Plan (SPCCP) per the requirements of 40 CFR 112. The SPCCP is designed to prevent spills from onsite facilities and includes requirements for secondary containment, provides emergency response procedures, establishes training requirements, and so forth.

Hazardous Materials Transportation

The Hazardous Materials Transportation Act (HMTA), 49 CFR 171, Subchapter C. The U.S. Department of Transportation (DOT), Federal Highway Administration, and the Federal Railroad Administration regulate transportation of hazardous materials at the federal level. The HMTA requires that carriers report accidental releases of hazardous materials to DOT at the earliest practical moment. Other incidents that must be reported include deaths, injuries requiring hospitalization, and property damage exceeding $50,000.

Worker Health and Safety

Occupational Safety and Health Act, 29 CFR et seq. Under the authority of the Occupational Safety and Health Act of 1970, the U.S. Occupational Safety and Health Administration (OSHA) has adopted numerous regulations pertaining to worker safety (29 CFR). These regulations set standards for safe work-places and work practices, including the reporting of accidents and occupational injuries. Some OSHA regulations contain standards relating to hazardous materials handling, including workplace conditions, employee protection requirements, first aid, and fire protection, as well as material handling and storage. Relevant citations are summarized below.

Hazard Communication, 29 CFR 1910.1200. The purpose of the OSHA Hazard Communication law is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information concerning any potential hazards is transmitted to employers and employees. This transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, material safety data sheets, and employee training.

Process Safety Management (PSM), 29 CFR 1910.119. Under this section, facilities which use, store, manufacture, handle, process, or move hazardous materials are required to:

- Conduct employee safety training;
- Have an inventory of safety equipment relevant to potential hazards;
- Have knowledge on use of the safety equipment;
- Prepare an illness prevention program;
- Provide hazardous substance exposure warnings;
- Prepare an emergency response plan; and
- Prepare a fire prevention plan.

In addition, 29 CFR 1910.119, Process Safety Management (PSM) of Highly Hazardous Chemicals, specifically requires prevention program elements to protect workers at facilities that have toxic, flammable, reactive or explosive materials. Prevention program elements are aimed at preventing or minimizing the consequences of catastrophic releases of chemicals and include process hazard analyses, formal training programs for employees and contractors, investigation of equipment mechanical integrity, and an emergency response plan.

State of California

State hazardous material and waste laws and regulations that apply to hazardous substances used or stored at DCPP are listed below. Summaries of these regulations are then provided in the paragraphs following.

California Health and Safety Code

- Division 20, Chapter 6.5, §25100-25249, Hazardous Waste Control
- Division 20, Chapter 6.95, §255500, et seq. Hazardous Materials Management Plan and Community Right-to-Know and Hazardous Materials Release Response Plans and Inventory (Business Plan Program) implemented by the San Luis Obispo County Public Health Department, Environmental Health Services Hazardous Materials Division (HMD). See Local Ordinances and Policies below.
- Proposition 65 Compliance, H&SC §25249.5 et seq.
- H&SC §§25340-25392, Carpenter-Presley-Tanner Hazardous Substance Account Act
- H&SC §§25531-25541, Risk Management and Prevention Program

California Water Code

- Division 7, Water Quality (Porter-Cologne Water Quality Control Act)

California Code of Regulations (CCR)

- Title 8, §1529, Asbestos Construction Standard
- Title 8, §1532.1, Lead Construction Standard
- Title 8, §5189, Accidental Release Plan (ARP)
- Title 8, §5192, Accidental Release Plan (ARP)
- Title 19, §2729, Employee Training Program
- Title 22, Division 4, Chapter 30, Hazardous Wastes
- Title 22, Division 4.5, §§66260-67786, Hazardous Waste Requirements
- Title 22, §66265.50-.56, Contingency/Emergency Response Plan

Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) is administered by the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC). DTSC has adopted extensive regulations governing the generation, transportation, and disposal of hazardous wastes. These regulations impose cradle-to-grave requirements for handling hazardous wastes in a manner that protects human health and the environment. The HWCL regulations establish requirements for identifying, packaging, and labeling hazardous wastes. They prescribe management practices for hazardous wastes; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills. Hazardous waste is tracked from the point of generation to the point of disposal or treatment using hazardous waste manifests. The manifests list a description of the waste, its intended destination, and regulatory information about the waste.

Hazardous Materials Management Planning

The Office of Emergency Services (OES), in support of local government, coordinates overall state agency response to major disasters. The office is responsible for assuring the State's readiness to respond to and recover from natural, manmade, and war-caused emergencies, and for assisting local governments in their emergency preparedness, response, and recovery efforts. During major emergencies, OES may call upon all State agencies to help provide support. Due to their expertise, the California National Guard, Highway Patrol (CHP), Department of Forestry and Fire Protection, Conservation Corps, Department of Social Services, and Caltrans are the agencies most often asked to respond and assist in emergency response activities.

Hazardous Materials Release Response Plans and Inventory Act. The California Accidental Release Prevention (CalARP) Program, Title 19 CCR Title Division 2, Chapter 4.5 and H&SC Chapter 6.95, Article 2 requires facilities that handle listed regulated substances to develop Accidental Release Plans (ARP). An RMPP and ARP can be submitted as the same document to the USEPA and State of California (see description of RMPP components in federal section above). The ARP should be updated to reflect newly constructed facilities at DCPP based on the quantity of hazardous materials stored.

Hazardous Materials Transportation in California

California regulates the transportation of hazardous waste originating or passing through the State in Title 13 of the California Code of Regulations. The CHP and Caltrans have primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies. The CHP enforces materials and hazardous waste labeling and packing regulations that prevent leakage and spills of material in transit and provide detailed information to cleanup crews in the event of an incident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of the CHP. The CHP conducts regular inspections of licensed transporters to ensure regulatory compliance. Caltrans has emergency chemical spill identification teams at locations throughout the State.

Hazardous waste must be regularly removed from generating sites by licensed hazardous waste transporters. Transported materials must be accompanied by hazardous waste manifests.

Hazardous Material Worker Safety, California Occupational Safety and Health Act

The California Occupational Safety and Health Administration (Cal/OSHA) is responsible for assuring worker safety in the handling and use of chemicals in the workplace. Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations in Title 8 CCR. Cal/OSHA hazardous materials regulations include requirements for safety training, availability of safety equipment, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.

Cal/OSHA also enforces hazard communication program regulations, which contain training and information requirements, including procedures for identifying and labeling hazardous substances. The hazard communication program also requires that Material Safety Data Sheets (MSDS) be available to employees and that employee information and training programs be documented.

Asbestos and Lead

Asbestos-containing construction materials (ACCM) are defined by Cal/OSHA as any internal building component containing greater than 0.1 percent asbestos. This is more stringent than federal definitions of asbestos-containing materials (ACM), which contain asbestos in concentrations greater than 1 percent. ACM applies to all building components, including exterior materials and roofing. Lead-containing paint (LCP) is defined as paint containing 0.006 milligrams per kilogram (mg/kg) lead by weight. Lead-based paint (LBP) is defined as paint containing 0.05 mg/kg lead by weight. Asbestos and lead hazards associated with DCPP operations are subject to these rules. Existing ACM and LBP surveys cannot identify all materials, especially in or on internal building components. Compliance with 29 CFR 1926.1101, 40 CFR 61 Subpart M (NESHAPS), SLOAPCD Rule 701, and similar State laws listed below, requires sampling of suspect or presumed ACM before it is disturbed, if it is in a quantity of more than 260 linear feet on pipes, or 160 square feet on other facility components, or 35 cubic feet. Cal/OSHA requires registered asbestos abatement contractors to remove ACCM in quantities greater than 100 square feet.

The Asbestos Construction Standard, Title 8 CCR Section 1529. The Cal/OSHA asbestos standard for construction activities applies to all asbestos work where ACCM may be disturbed in quantities provided above.

The Asbestos Construction Standard regulates asbestos exposure in all construction work as defined in Title 8 CCR Section 1502, including but not limited to the following:

- Demolition or salvage of structures where asbestos is present;
- Removal or encapsulation of materials containing asbestos;
- Construction, alteration, repair, maintenance, or renovation of structures, substrates, or portions thereof, that contain asbestos;
- Installation of products containing asbestos;
- Asbestos spill/emergency cleanup;
- Transportation, disposal, storage, containment of and housekeeping activities involving asbestos or products containing asbestos, on the site or location at which construction activities are performed;
- Excavation which may involve exposure to asbestos as a natural constituent that is not related to asbestos mining and milling activities;
- Routine facility maintenance; and
- Erection of new electric transmission and distribution lines and equipment, and alteration, conversion and improvement of the existing transmission and distribution lines and equipment.

Cal/OSHA Lead Construction Standard, Title 8 CCR Section 1532.1. The Lead Construction Standard applies to all construction work where an employee may be occupationally exposed to lead. The standard applies to any construction activity that may release dust or fumes included but not limited to manual scraping, manual sanding, heat gun applications, power tool cleaning, rivet busting, abrasive blasting, welding, cutting, or torch burning of lead based coatings. Unless otherwise determined by approved testing methods, all paints and other surface coatings are assumed to contain lead at prescribed concentrations, depending on the application date of the paint or coating.

All construction work excluded from coverage in the general industry standard for lead by Section 5198(a)(2) is covered by this standard. Construction work is defined as work for construction, alteration and/or repair, including painting and decorating. It includes but is not limited to the following:

- Demolition or salvage of structures where lead or materials containing lead are present;
- Removal or encapsulation of materials containing lead;
- New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;
- Installation of products containing lead;
- Lead contamination/emergency cleanup;
- Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed; and
- Maintenance operations associated with the construction activities.

Local Ordinances and Policies

San Luis Obispo County Public Health Department – Division of Environmental Health

The administering agency for H&SC §25500-25543.3, 8 CCR §5189, 19 CCR §2720-2734, and 22 CCR §66262.34(a)(3) and 66265.52 is the San Luis Obispo County Public Health Department. The Division of Environmental Health is the local Certified Unified Program Agency and the administering agency for the Hazardous Materials Release Response Plans and Inventory Program.

Compliance with H&SC Chapter 6.95 requires DCPP to detail the operating and storage procedures involving acutely hazardous materials (AHM) in a Hazardous Materials Management Plan (HMMP). The HMMP contains a hazard assessment of AHM stored and used at DCPP, including a discussion of the consequences of the release of AHM into the environment. The HMMP also contains best management practices for the storage and use of AHM. The primary goal of the HMMP is to protect public health and environment by promoting the safe storage, use, and disposal of hazardous materials.

San Luis Obispo County is responsible for yearly inspections, issuing notices of violation, reinspections, and maintaining a database inventory of the following:

- Chemicals stored and used at DCPP. The chemical inventory lists one of four hazard categories for each chemical entry. The four hazard categories are:
  1. Fire
  2. Acute
  3. Pressure Release
  4. Radioactive
- Types and quantities of hazardous waste generated.
- Underground storage tank (UST) system details, including active or removed status.
- Site assessment records from investigation and remediation of documented unauthorized releases of hazardous materials or waste into the environment.

San Luis Obispo County APCD, Rule 701 NESHAPS

Rule 701 implements National Emission Standards for Hazardous Air Pollutants (NESHAPS) as promulgated in 40 CFR 61, Subpart M, for renovation or demolition of facilities with regulated ACM (RACM). The definition of "renovation" means removal of any load-bearing building component. The rule requires notification of SLOAPCD and payment of a fee depending on the extent of work (see Rule 302N) at least 14 days prior to start of work. The form and rule can be found online (CARB, 2004). Expedited notifications are usually permitted if previously unknown ACM is identified within internal building components.

D.6.3 Environmental Impacts and Mitigation Measures for the Proposed Project

D.6.3.1 Definition and Use of Significance Criteria

According to Appendix G of the *CEQA Guidelines*, a project would normally be considered to have a significant health or safety effect if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; or
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to California Health and Safety Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

Additionally, the CPUC normally considers an impact from hazardous materials to be significant and require additional mitigation if project construction or operation would:

- Result in soil contamination, including flammable or toxic gases, at levels exceeding federal, State, or local hazardous waste limits established by 40 CFR Part 261 and Title 22 CCR 66261.21, 66261.22, 66261.23, and 66261.24;
- Result in mobilization of contaminants currently existing in the soil, creating potential pathways of exposure to humans or other sensitive receptors that would result in exposure to contaminants at levels that would be expected to be harmful; or
- Result in the presence of contaminated soils or groundwater within the project area, and as a result, expose workers and/or the public to contaminated or hazardous materials during construction activities, at levels in excess of those permitted by California Occupational Safety and Health Administration (Cal/OSHA) in CCR Title B and the federal Occupational Safety and Health Administration (OSHA) in Title 29 CFR Part 1910.

D.6.3.2 Replacement Steam Generator Transport

PG&E has identified procedures previously established at DCPP to minimize the potential for accidental release of hazardous materials. Existing programs at DCPP include emergency response procedures, employee training requirements, hazard recognition training, fire control procedures, hazard communications training, personal protection equipment training, and release reporting requirements. Employee training at DCPP would include both initial and refresher training for safe handling of hazardous materials. As part of the DCPP permit under the National Pollutant Discharge Elimination System (NPDES) program, the SPCCP (DCPP, 2001) and Best Management Practices (BMPs) Plan would also be implemented. It is expected that the contractor for the Proposed Project would also obtain, review, and maintain copies of the DCPP environmental procedures and comply with the procedures and policies. Other relevant programs include the following:

- Hazard Communication Program
- Hazardous Waste Workplace Accumulation Areas
- Hazardous Materials Management Program.

RSG transport would involve short-term use of heavy equipment that require hazardous materials (e.g., fuels, petroleum, oil, and lubricants) for routine operation. Table D.6-4 provides a summary of transportation equipment required for the steam generator transport phase of the project, including proposed use, the number of each type of equipment to be used, and associated hazardous materials.

Impact H-1: Heavy equipment fuel, oil, or hydraulic line leak or rupture could cause hazardous materials release

During transport of the RSGs, hazardous materials such as vehicle fuels, oils, and other vehicle maintenance fluids would be used and stored onsite. Spills of hazardous materials during transport activities could potentially cause soil, surface water, or groundwater contamination. This potentially significant impact (Class II) would be reduced to a less than significant level through the implementation of Mitigation Measures H-1a and H-1b.

Table D.6-4. Hazardous Materials Associated with Proposed Transportation Equipment

Equipment Description	Proposed Use	Number Proposed	Associated Hazardous Material(s)
Prime Movers			
Barge	Transport RSGs	1	Fuel Oil
Tractor trailers	Transport RSGs to RSG storage facility	3	POL
Tugboats	Stabilize barge movement	2	Fuel Oil
Spud barge (tentative)	Stabilize barge movement	1	Fuel Oil
Bulldozer (tentative)	Assist prime movers, and act as temporary bollards to stabilize the barge	2	POL
Service Fleet			
Tractor/trailers	Shuttle gear/equipment	3	POL
Hydraulic pumps	For gantry crane	2	POL
Forklift, 18-ton	Move/load equipment onto tractor trailers and trucks	3	POL, Current Load
Utility/mechanic trucks, 1-ton	Utility and heavy equipment maintenance	5	POL, Solvents
Crawler crane	Set/remove ramps for barge offloading	2	POL
Light tower, portable, diesel	Facilitate night work	4	Diesel/Oil (if generator)
Pickup trucks	Transport of utility, personnel, and light-duty material	6	POL
Autos/sport utility vehicles	Transport of utility, personnel, and light-duty material	6	POL
Traffic control vehicles	Traffic control	2	POL
Generators	Power generation	4	Diesel/Oil

Notes: POL: Petroleum, oil, lubricants
Source: PG&E, 2004a, Table 5.3-1.

Mitigation Measures for Impact H-1, Heavy equipment fuel, oil, or hydraulic line leak or rupture could cause hazardous materials release

H-1a **Implement DCPP Spill Response Procedures.** In the event of a fuel, oil, or hydraulic line leak or rupture, collect spilled fluid with absorbent materials. Prevent or stop spill from spreading to the environment. In the event that a spill reaches bare soil, excavate impacted soil and dispose of with absorbent materials. In the event that a spill occurs on Port San Luis Harbor District property or in ocean water, Central Coast RWQCB and Harbor District personnel shall be immediately notified and corrective measures, such as containment, shall be taken immediately. A copy of the DCPP Spill Prevention Control and Countermeasure Plan shall remain with the contractor at all times.

In addition, PG&E shall develop and implement a worker environmental training program that communicates to all appropriate personnel location-specific environmental concerns and appropriate work practices, including spill prevention and response measures, as well as site-specific physical conditions to lessen the impact of potential spills (i.e., identification of flow paths to sensitive resources). A copy of this plan shall be submitted for CPUC approval prior to commencement of RSG transport activities.

H-1b **Conduct Routine Inspections and Maintenance of Transporter.** All transporter vehicles shall be inspected at the beginning of each work day~~, during any stop of 15 minutes or longer,~~ and at the end of each work shift. While in transport, continual visual inspections shall be conducted by the crew. If any leaks are observed during transport, appropriate action shall be taken to stop the leak prior to the continuance of transport. Any necessary spill response shall be conducted

according to Mitigation Measure H-1a. ~~Temporary drip pans shall be used to contain leaks from slow leaking equipment (for example, dripping oil or hydraulic line). Small leaks shall be repaired at the next scheduled stop after discovery. Large leaks shall be repaired immediately, and the ground shall be protected by 20 mil high-density polyethylene (HDPE) or similar barrier until repairs are complete. Routine maintenance or repairs shall be conducted on appropriate containment systems, and all fluids removed from vehicles shall be collected and manifested.~~

Impact H-2: Heavy equipment maintenance could cause hazardous materials release

Use of solvents and cleaners, or replacement of used waste oils and lubricants during routine maintenance or unscheduled repairs may impair the environment or adversely affect human health and safety if proper use and disposal procedures are not followed. An unauthorized release of a significant quantity of hazardous materials or waste may adversely impact the environment over time. This potentially significant impact (Class II) would be reduced to a less than significant level through the implementation of Mitigation Measure H-2a.

Mitigation Measures for Impact H-2, Heavy equipment maintenance could cause hazardous materials release

H-2a **Properly Handle Maintenance Waste.** Routine maintenance or unscheduled repairs shall be conducted on appropriate containment systems, and all fluids removed from vehicles or used for cleaning shall be properly contained, labeled, and manifested, according to the procedures of the DCPP Spill Prevention Control and Countermeasure Plan. All hazardous waste shall be properly disposed of in accordance with federal and State regulations, and local ordinances. Storage of hazardous material on property outside of DCPP (e.g., Port San Luis Harbor District) shall be prohibited unless a license (or agreement) from the property owner and an insurance policy or bond for clean-up are obtained. In addition, the worker environmental training program discussed in Mitigation Measure H-1a shall include discussion of material handling, storage, and disposal procedures per applicable regulations and designed to ensure hazardous materials are handled and contained safely.

D.6.3.3 Replacement Steam Generator Staging and Preparation

Development of temporary facilities would involve use of heavy-duty construction equipment at the proposed temporary staging area (TSA), which would be at the southern end of the DCPP site on a previously developed flat terrace area. Operating construction equipment involves routine use and storage of hazardous materials such as vehicle fuels, oils, and other vehicle maintenance fluids. As with the transport activities described above, spills of hazardous materials during staging and preparation activities could potentially cause soil, surface water, or groundwater contamination (Impact H-1 and H-2). Spill response procedures and proper handling of hazardous waste (Mitigation Measures H-1a, H-1b and H-2a) would ensure that these potential impacts are less than significant (Class II).

Excavation would be limited to minor trenching for installation of utilities for the proposed RSG storage facility and other temporary facilities. There are no known contaminated sites within a one mile radius of DCPP. If excavation and/or construction dewatering activities encounter previously unknown hazardous materials contamination of soil or groundwater, appropriate action, including regulatory notification, would need to be undertaken immediately.

Impact H-3: Previously unknown contaminated soil/groundwater could be encountered during construction

Excavation and/or construction dewatering activities during staging and preparation may encounter previously unknown hazardous materials contamination of soil or groundwater. Contamination may be inadvertently released to un-impacted areas and/or create a health risk for construction workers. This potentially significant impact (Class II) would be reduced to a less than significant level through the implementation of Mitigation Measure H-3a.

Mitigation Measures for Impact H-3, Previously unknown contaminated soil/groundwater could be encountered during construction

H-3a Stop Work Immediately and Notify Appropriate Project Personnel and Regulators. If impacted soil and/or groundwater is encountered during excavation and/or groundwater dewatering, work shall stop immediately. Impacted soil shall be placed on 20-mil high-density polyethylene (HDPE) and covered. The construction superintendent, designated PG&E and CPUC personnel, and applicable regulatory agencies shall be notified immediately. Contingency planning for such an event shall be conducted prior to start of work. The nature and extent of contamination shall be identified through soil and/or water testing, and appropriate remedial action proposed and approved by the CPUC prior to disturbing additional material.

D.6.3.4 Original Steam Generator Removal, Transport, and Storage

Asbestos-containing construction materials (ACCM), asbestos-containing materials (ACM), lead-containing paint (LCP) and lead-based paint (LBP) hazards may by encountered during dismantling activities associated with OSG removal. Existing ACM and LBP surveys cannot identify all materials, especially in or on internal building components. Compliance with 29 CFR 1926.1101, 40 CFR 61 Subpart M (NESHAPS), SLOAPCD Rule 701, and other state laws requires sampling of suspect or presumed ACM before it is disturbed, and Cal/OSHA requires registered asbestos abatement contractors to remove ACCM.

Impact H-4: Previously unknown asbestos or lead could be encountered

Existing asbestos and lead surveys cannot identify all asbestos- or lead-containing materials, especially in or on internal building components. During OSG removal and other construction activities, previously unknown ACM, ACCM and/or LCP hazards may be encountered. Compliance with federal regulation to survey prior to demolition or renovation activities (NESHAPs, discussed above, Section D.6.2) would ensure that this impact would be less than significant (Class III).

During activities related to OSG removal, transport, and storage, including construction of the OSG Storage Facility, hazardous materials and waste may be generated or encountered. Spills or improper use and disposal of solvents, cleaners, or replacement of used waste oils and lubricants during routine maintenance or unscheduled repairs may impair the environment or adversely affect human health and safety if proper use and disposal procedures are not followed. As with the construction activities described for RSG staging and preparation above, spills could potentially cause soil or groundwater contamination (Impact H-1 and H-2). Spill response procedures and proper handling of hazardous waste (Mitigation Measures H-1a, H-1b, and H-2a) would ensure that these potential impacts are less than significant (Class II).

Similarly, excavation related to OSG Storage Facility construction could encounter previously unknown contaminated soil or groundwater (Impact H-3). Implementing previously identified measures (Mitigation Measure H-3a) would ensure that this impact is reduced to a less than significant level (Class II).

D.6.3.5 Replacement Steam Generator Installation

During activities related to RSG installation, hazardous materials and waste may be generated. Spills or improper use and disposal of solvents, cleaners, or replacement of used waste oils and lubricants during routine maintenance or unscheduled repairs may impair the environment or adversely affect human health and safety if proper use and disposal procedures are not followed. As with the construction activities described for the Proposed Project, spills could potentially cause soil or groundwater contamination (Impact H-1 and H-2), and proper spill response procedures (Mitigation Measures H-1a, H-1b, and H-2a) would need to be implemented to ensure that these impacts are less than significant (Class II).

There would be no permanent change in the levels of hazardous materials use or waste generation at DCPP as a result of the Proposed Project. Except for the quantities of waste generated over the short-term duration of the Proposed Project, the Proposed Project would cause no permanent change when compared to the existing environmental setting.

D.6.4 Environmental Impacts and Mitigation Measures for the Alternatives

D.6.4.1 Replacement Steam Generator Offloading Alternative

Transportation from the Intake Cove to the TSA would be shorter in distance and take less transportation time than the Proposed Project. However, this route begins on the Pacific Coast, and sensitive receptors (i.e., fragile coastal habitat) are in the immediate work zone. Hazardous materials and waste may be generated, and additional diligence would be appropriate for all oversight personnel. Spills or improper use and disposal of solvents, cleaners, or replacement of used waste oils and lubricants during routine maintenance or unscheduled repairs may impair the environment much more quickly than they would in the vicinity of Port San Luis for the Proposed Project. Spills or leaks would adversely affect human health and safety if proper use and disposal procedures are not followed. It is expected that PG&E and the transporter contractor would immediately implement spill response procedures in the event of a spill or leak. As with the transport activities described for the Proposed Project, spills could potentially cause soil or groundwater contamination (Impact H-1 and H-2). Also similar to the Proposed Project, spill response procedures, proper handling of hazardous waste, and proper maintenance of heavy duty transporters (Mitigation Measures H-1a, H-1b, and H-2a) would ensure that these potential impacts are less than significant (Class II).

D.6.4.2 Temporary Staging Area Alternatives

During construction activities related to steam generator staging at alternative TSA locations, hazardous materials and waste may be generated. Spills or improper use and disposal of solvents, cleaners, or replacement of used waste oils and lubricants during routine maintenance or unscheduled repairs may impair the environment or adversely affect human health and safety if proper use and disposal procedures are not followed. As with the construction activities described for the Proposed Project, spills could potentially cause soil or groundwater contamination (Impact H-1 and H-2), and proper spill response procedures (Mitigation Measures H-1a, H-1b, and H-2a) would need to be implemented to ensure that these impacts are less than significant (Class II).

D.6.4.3 Original Steam Generator Storage Facility Location Alternatives

During construction activities related to steam generator storage at the OSG Storage Facility Location Alternative sites, hazardous materials and waste may be generated. Spills or improper use and disposal of solvents, cleaners, or replacement of used waste oils and lubricants during routine maintenance or unscheduled repairs may impair the environment or adversely affect human health and safety if proper use and disposal procedures are not followed. As with the construction activities described for the Proposed Project, spills could potentially cause soil or groundwater contamination (Impact H-1 and H-2) and previously unknown contaminated soil or groundwater could be encountered (Impact H-3). Spill response procedures, proper handling of hazardous waste, ~~and~~ proper maintenance of heavy duty transporters (Mitigation Measures H-1a, H-1b, and H-2a) and notification of appropriate project personnel and regulators (Mitigation Measure H-3a) would ensure that these potential impacts are less than significant (Class II).

D.6.4.4 Original Steam Generator Offsite Disposal Alternative

During the transport of the steam generator to an offsite disposal location, hazardous materials and waste may be generated and impacts would be similar to those discussed for the OSG Storage Facility Location Alternative above. Disposal of OSGs offsite would have greater potential impacts and would be less preferred than the Proposed Project or the OSG Storage Facility Location Alternatives due to its long transport distance and greater exposure to the general public.

D.6.5 Environmental Impacts of the No Project Alternative

The No Project Alternative would force DCPP to shut down early, around 2013 or 2014. Discontinuing operations at DCPP would decrease the risk for potential spills, leaks, ruptures, or otherwise release of hazardous materials that could cause soil or water contamination and would eliminate the continuation of hazardous materials generation at DCPP.

It is anticipated that environmental and safety concerns are likely to preclude the addition of new nuclear, hydroelectric, and coal and oil-fired generation as replacement for DCPP. Construction and operation of new natural gas-fired power plants or renewable resources (such as wind power) and transmission lines may be necessary; however, their locations and development schedules cannot be predicted. New power facilities and related construction activities would need to comply with federal, State, and local requirements for hazardous materials management, which would include strategies to minimize potential impacts.

D.6.6 Mitigation Monitoring, Compliance, and Reporting Table

Table D.6-5 shows the mitigation monitoring, compliance, and reporting program for hazardous materials.

Table D.6-5. Mitigation Monitoring Program – Hazardous Materials

IMPACT H-1	**Heavy equipment fuel, oil, or hydraulic line leak or rupture could cause hazardous materials release (Class II)**
MITIGATION MEASURE	**H-1a: Implement DCPP Spill Response Procedures.** In the event of a fuel, oil, or hydraulic line leak or rupture, collect spilled fluid with absorbent materials. Prevent or stop spill from spreading to the environment. In the event that a spill reaches bare soil, excavate impacted soil and dispose of with absorbent materials. In the event that a spill occurs on Port San Luis Harbor District property or in ocean water, Central Coast RWQCB and Harbor District personnel shall be immediately notified and corrective measures, such as containment, shall be taken immediately. A copy of the DCPP Spill Prevention Control and Countermeasure Plan shall remain with the contractor at all times. In addition, PG&E shall develop and implement a worker environmental training program that communicates to all appropriate personnel location-specific environmental concerns and appropriate work practices, including spill prevention and response measures, as well as site-specific physical conditions to lessen the impact of potential spills (i.e., identification of flow paths to sensitive resources). A copy of this plan shall be submitted for CPUC approval prior to commencement of RSG transport activities.
Location	Transport routes, staging areas, construction sites, and disposal area(s)
Monitoring / Reporting Action	Per DCPP Spill Prevention Control and Countermeasure Plan report to RWQCB
Effectiveness Criteria	Continuous monitoring
Responsible Agency	CPUC
Timing	Before and during all steam generator replacement activities
MITIGATION MEASURE	**H-1b: Conduct Routine Inspections and Maintenance of Transporter.** All transporter vehicles shall be inspected at the beginning of each work day~~, during any stop of 15 minutes or longer,~~ and at the end of each work shift. While in transport, continual visual inspections shall be conducted by the crew. If any leaks are observed during transport, appropriate action shall be taken to stop the leak prior to the continuance of transport. Any necessary spill response shall be conducted according to Mitigation Measure H-1a. ~~Temporary drip pans shall be used to contain leak from slow leaking equipment (for example, dripping oil or hydraulic line). Small leaks shall be repaired at the next scheduled stop after discovery. Large leaks shall be repaired immediately, and the ground shall be protected by 20 mil high-density polyethylene (HDPE) or similar barrier until repairs are complete. Routine maintenance or repairs shall be conducted on appropriate containment systems, and all fluids removed from vehicles shall be collected and manifested.~~
Location	Transport routes
Monitoring / Reporting Action	Per DCPP Spill Prevention Control and Countermeasure Plan report to RWQCB
Effectiveness Criteria	Continuous monitoring
Responsible Agency	CPUC
Timing	During transport of steam generators
IMPACT H-2	**Heavy equipment maintenance could cause hazardous materials release (Class II)**
MITIGATION MEASURE	**H-2a: Properly Handle Maintenance Waste.** Routine maintenance or unscheduled repairs shall be conducted on appropriate containment systems, and all fluids removed from vehicles or used for cleaning shall be properly contained, labeled, and manifested, according to the procedures of the DCPP Spill Prevention Control and Countermeasure Plan. All hazardous waste shall be properly disposed of in accordance with federal and state regulations, and local ordi-

Table D.6-5. Mitigation Monitoring Program – Hazardous Materials

	nances. Storage of hazardous material on property outside of DCPP (e.g., Port San Luis Harbor District) shall be prohibited unless a license (or agreement) from the property owner and an insurance policy or bond for clean-up are obtained. In addition, the worker environmental training program discussed in Mitigation Measure H-1a shall include discussion of material handling, storage, and disposal procedures per applicable regulations and designed to ensure hazardous materials are handled and contained safely.
Location	Transport routes, staging areas, construction sites, and disposal area(s)
Monitoring / Reporting Action	Per DCPP Spill Prevention Control and Countermeasure Plan report to RWQCB
Effectiveness Criteria	Continuous monitoring
Responsible Agency	CPUC
Timing	During all steam generator replacement activities
IMPACT H-3	**Previously unknown contaminated soil/groundwater could be encountered during construction (Class II)**
MITIGATION MEASURE	**H-3a: Stop Work and Notify Appropriate Project Personnel and Regulators.** If impacted soil and/or groundwater is encountered during excavation and/or groundwater dewatering, work shall stop immediately. Impacted soil shall be placed on 20-mil HDPE and covered. The construction superintendent, designated PG&E and CPUC personnel, and applicable regulatory agencies shall be notified immediately. Contingency planning for such an event shall be conducted prior to start of work. The nature and extent of contamination shall be identified through soil and/or water testing, and appropriate remedial action proposed and approved by the CPUC prior to disturbing additional material.
Location	Proposed construction areas requiring excavation and/or groundwater dewatering.
Monitoring / Reporting Action	Monitor excavated soil and/or pumped groundwater for potential impacts from previous and unknown unauthorized releases of hazardous materials. If encountered, stop work and notify superintendent, DCPP project manager, and CPUC.
Effectiveness Criteria	HAZWOper 24-hour Supervisor Training for the Construction Foreman and continuous monitoring
Responsible Agency	CPUC
Timing	During construction excavation and/or dewatering

D.6.7 References

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