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4.11 WASTE MANAGEMENT

This section describes the various waste streams associated with the construction and operations of the proposed Project, particularly those generated at the power plant site. The discussion includes an evaluation of potential impacts resulting from the storage and handling of hazardous waste materials, and information on the applicable LORS that apply to the handling and disposal of waste resulting from the Project.

Non-hazardous wastes are degradable or inert materials that do not contain soluble pollutants in concentrations that would cause degradation of water quality and may be deposited at Class II or III disposal facilities (CCR, Title 14, § 17200 et seq.).

Hazardous waste is material that exceeds the criteria for toxicity, corrosivity, ignitability, or reactivity as established by the Department of Toxic Substance Control (DTSC). Hazardous waste generators must obtain USEPA identification numbers and use permitted treatment, storage, and disposal facilities. Registered hazardous waste transporters must handle the transfer of hazardous waste to appropriate Class I disposal facilities (CCR, Title 22, § 66262.10 et seq.).

There will be no waste disposal sites onsite, nor Project-specific disposal sites offsite. Wastes generated by the Project will be hauled by licensed contractors to existing licensed waste management facilities. A detailed description of the design, construction, and operation of the Project is provided in Section 2.2, Project Description.

4.11.1 Existing Conditions

The proposed power plant will be located on an undeveloped parcel of land immediately south of the Sycamore Landfill within the City of San Diego city limits. The parcel is located in an area currently zoned RS-1-8 (single family residential use). SR 52 is located to the immediate south of the Project site. The City of Santee is located approximately 1 mile south and east of the site. The transmission line runs north from the Project site to the utility switchyard through property owned by the Sycamore Landfill. The proposed temporary construction laydown areas will be located on previously disturbed Sycamore Landfill property approximately one-half mile north of the Project site (approximately 2.5 acres). Temporary construction parking will be located on an existing paved parking lot at 7927 Mission Gorge Road in the City of Santee.

The Project is proposed to connect to an existing SDG&E 230kV electric transmission system at the utility switchyard, that is approximately 1 mile north of the Project site. The proposed 230kV gen tie line route runs north along the west side of Sycamore Landfill Road for approximately 2,600 feet then northwest for approximately 2,600 feet to the utility switchyard.

The Project will connect to the existing 20-inch diameter SDG&E natural gas pipeline that is located 2,200 feet away from the proposed plant site at the intersection of Mast Boulevard and Landfill Road.

4.11.1.1 Phase 1 ESA

A Phase I Environmental Site Assessment (ESA) (Appendix G) was conducted at the site on July 19, 2011 to collect and interpret readily available data to identify recognized environmental conditions (RECs), if any, associated with the property. The Phase I was done in accordance with ASTM Standard E1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, including the USEPA All Appropriate Inquiry (AAI) standard. A REC is defined as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the Property or into the ground, groundwater, or surface water of the Property.”

The Phase I ESA report concluded that no RECs were identified. A copy of the Phase I ESA is included in Appendix G.

4.11.2 Environmental Consequences

Wastewater, solid non-hazardous waste, and liquid and solid hazardous waste will be generated at the plant site during facility construction and operation.

4.11.2.1 Significance Criteria

Analysis of impacts related to waste management from the Project is based on the following significance criteria:

- Non-hazardous solid wastes must not significantly alter available landfill, recycling, or treatment program capacities.
- Non-hazardous liquid wastes must not cause a publicly owned treatment system to violate any applicable waste discharge requirements.
- Hazardous solid wastes must not significantly alter available Class I landfill capacity.
- The facility must comply with all applicable laws regarding the handling of hazardous wastes.

Appendix G to the CEQA Guidelines also provides that a project has a significant impact when it:

- Breaches standards relating to solid waste or litter control;
- Creates a potential public health hazard or involves materials that pose a hazard; or
- Results in a need for new systems or substantial alterations to waste disposal facilities.

4.11.2.2 Construction Waste

The primary waste generated during construction will be solid non-hazardous waste. Secondary construction waste streams will consist of non-hazardous liquid waste, as well as minimal quantities of hazardous waste, both solid and liquid. Most of the hazardous wastes will be generated at the plant site. The types of waste and their estimated quantities are described in Table 4.11-1.

Table 4.11-1 Wastes Generated During Construction

Waste	Origin	Composition	Estimated Quantity	Classification
Construction non-hazardous waste (e.g., scrap wood, glass, plastic, paper, packing)	General demolition and construction debris (e.g., roofs, timber columns)	Normal refuse	5 cy/mo	Non-hazardous
Demolition materials inclusive of concrete, wood, scrap metal, and excavation of building and pad footers	General demolition and construction debris (foundations, footings) and excess soils	Normal refuse	9,859 cy in months 1 & 2	Non-hazardous
Empty hazardous material containers	General construction	Drums, containers, totes	100 containers	Hazardous and non-hazardous solids
Spent welding materials	General welding activity	Solid	20 lb/mo	Hazardous
Waste oil filters, drained	Construction equipment and vehicles	Solid	100 lb/mo	Non-hazardous
Engine waste lube oil flush lube oil	Engine generator lube oil flushes	Hydrocarbons	19,000 gal. of flush lube oil	Hazardous
Oily rags, oil sorbent excluding lube oil flushes	Cleanup of small spills	Hydrocarbons	Two 55-gal drums/mo	Hazardous
Solvents, paint, adhesives	Maintenance	Various, e.g. VOCs, SVOCs, metals, epoxies	180 lb/mo	Hazardous
Spent alkaline batteries waste solids	Equipment	Metals	50 batteries per month	Universal
Waste oil	Equipment, vehicles	Hydrocarbons	50 gal/mo	Non-RCRA hazardous liquid
Sanitary waste	Portable toilet holding tanks	Sewage	200 gal/day during life of construction	Non-hazardous liquid
Stormwater	Rainfall	Water	2,553 gpm during peak intensity	Non-hazardous liquid
Fluorescent mercury vapor lamps	Lighting	Metals, PCBs	50 lb/yr	Universal
Chemical cleaning fluid waste	Pipe cleaning and flushing	Citric Acid	300 lbs dissolved in 270k gal of solution (during construction)	Hazardous, Non-RCRA hazardous, non-hazardous liquid
Hydrotest water	Testing equipment and piping integrity	Water	270k gal of water (during construction)	

Non-Hazardous Waste

Non-hazardous solid waste generated during construction will be collected in onsite dumpsters and picked up periodically by the San Diego Waste Management Authority. The waste will then be taken to the Sycamore Landfill Station, where it will be separated and/or consolidated. Recyclable materials can be segregated and transported by construction contractors or other private haulers to a local area recycling facility.

Approximately 60 tons of paper, wood, glass, and plastics will be generated from packing materials, waste lumber, insulation, and empty non-hazardous chemical containers during project construction. These wastes will be recycled where practical. Waste that cannot be recycled will be disposed of weekly in a Class III landfill. Onsite, the waste will be placed in dumpsters.

Wastewater

Depending on the chemical quality wastewater produced, wastewater could be classified as hazardous or non-hazardous. Wastewater generated during construction will include sanitary waste, stormwater runoff, pressure testing water, and equipment washdown water. During operation, wastewater generated will include sanitary waste, stormwater runoff, equipment washing {and other?} Sanitary waste will be collected in portable, self-contained toilets.. Equipment washwater and hydrostatic test water will be contained at specifically designated wash areas and disposed of offsite after required testing and characterization. Stormwater runoff will be managed in accordance with the contractor-developed stormwater pollution prevention plan that will be approved by the appropriate agencies prior to the start of construction. The generation of non-hazardous wastewater will be minimized through water conservation and reuse measures.

Hazardous Waste

Non-hazardous materials will be used whenever possible to minimize the quantity of hazardous waste generated. Hazardous waste generated during construction activities will consist of liquid waste, flushing-and-cleaning fluids, passivating fluids, and solvents. Some solid waste in the form of welding materials and dried paint may also be generated. The construction contractor will be the generator of hazardous construction waste and will be responsible for proper handling in compliance with all applicable federal, state, and local LORS, including licensing, training of personnel, accumulation limits and times, and reporting and recordkeeping.

The hazardous waste will be collected in satellite accumulation containers near the points of generation. This waste will be moved daily to the contractor's 90-day hazardous waste storage area located at the plant construction laydown area. The waste will be delivered to an authorized hazardous waste management facility before expiration of the 90-day storage limit.

In the event that soils are contaminated during construction or operational phases, these soils will be properly remediated. Several soil treatment and soil recycling facilities in California accept hydrocarbon-impacted soil that is classified by the generator as a nonhazardous waste pursuant to the Resource Conservation and Recovery Act (RCRA) and the CCR Title 22. Any hazardous soils found on the site will be disposed in accordance with all applicable LORS.

Waste Management

A summary of the management and minimization methods of each waste stream generated during the construction process is summarized in Table 4.11-2.

Table 4.11-2 Management of Wastes Generated During Construction

Waste	Waste Minimization and Management
Construction non-hazardous waste (e.g., scrap wood, glass, plastic, paper, packing)	Recycle and/or dispose of in a Class II or III landfill
Demolition materials inclusive of concrete, wood, scrap metal, and excavation of building and pad footers	Dispose of in Class II or III landfill. Recycle of materials where/when possible
Empty hazardous material containers	Containers < 5 gallons will be disposed as normal refuse. Containers > 5 gallons will be returned to vendors for recycling or reconditioning
Spent welding materials	Disposal at a Class I landfill
Waste oil filters, drained	Recycle at a permitted TSDF
Engine waste lube oil flush lube oil	Recycle at a permitted TSDF
Oily rags, oil sorbent excluding lube oil flushes	Recycle or dispose at a permitted TSDF
Solvents, paint, adhesives	Recycle at a permitted TSDF
Spent alkaline batteries waste solids	Recycle or dispose offsite at an Universal Waste Destination Facility
Waste oil	Dispose at a permitted TSDF
Sanitary waste	Remove by contracted sanitary service
Stormwater	Discharge to stormwater drain
Fluorescent mercury vapor lamps	Recycle or dispose offsite at an Universal Waste Destination Facility
Chemical cleaning fluid waste	Sample and characterize, if meets waste discharge requirements discharge in sanitary sewer, or manage for offsite disposal
Hydrotest water	Sample and characterize, if meets waste discharge requirements discharge in sanitary sewer, or manage for offsite disposal

4.11.2.3 Operations Waste

The primary waste generated during facility operations will be non-hazardous solid waste. However, varying quantities of both solid and liquid hazardous waste will also be generated periodically. Specific types of hazardous waste and their estimated quantities are discussed below in Table 4.11-3.

Table 4.11-3 Hazardous Wastes Generated During Project Operations

Waste	Origin	Composition	Estimated Quantity	Classification
Lubricating oil	Small leaks and spills from the plant lubricating oil system	Hydrocarbons	<10 gal/yr	Hydrocarbons <10 gal/yr
Engine lubricating oil	Engine lubrication	Hydrocarbon	~50 gal/mo disposal volume	Hazardous
Mineral oil	2 Station transformers	Mineral oil	Up to 20,000 gal during transformer maintenance . Maintenance occurs infrequently.	Hazardous

Waste	Origin	Composition	Estimated Quantity	Classification
SCR catalyst	SCR system (Warranty is 3 years; use tends to be 3 to 5 years)	Metal and heavy metals, including vanadium	42 tons every 3 to 5 years	Hazardous
CO catalyst	Oxidation catalyst (Use tends to be 3 to 5 years)	Metal and heavy metals, including vanadium	11 tons every 3 to 5 years	Hazardous
Oily rags, oil sorbent excluding lube oil flushes	Cleanup of small spills	Hydrocarbons	Two 55-gal drums/mo	Hazardous
Spent alkaline batteries waste solids	Equipment	Metals	50 batteries per month	Universal
Spent lead acid batteries (sealed)	LV Rooms	Heavy metals – 40% sulfuric acid	24V and 115V initially supplied. Battery life is 7 years	Hazardous
Treated coolant water rust inhibitor, and washdown drainage	Spillage, tank maintenance, radiator coolant system, and area wash down water	Water with water treatment chemicals, typically environmentally friendly water additives, typically Texaco HD, extended life, nitrate free	Disposal volumes will be dictated by equipment cooling water treatment & washdown frequency	May be hazardous if corrosive or splashed in eyes

Non-Hazardous Waste

The Project will produce operations-derived wastes typical of power generation facility operations and maintenance activities. These will include rags, broken and rusted metal and machine parts, defective or broken electrical materials, empty containers, typical refuse generated by workers and small office operations, and other miscellaneous solid wastes. The quantity generated is estimated to be about 1,040 cubic yards per year.

Non-hazardous solid waste generated during operation will be collected in onsite dumpsters and picked up periodically by the San Diego Waste Management Authority. The waste will then be taken to the Sycamore Landfill Station, where it will be separated and/or consolidated. Recyclable materials can be segregated and transported by construction contractors or other private haulers to an local area recycling facility. Paper, wood, glass, and plastics will be recycled where practical. Waste that cannot be recycled will be disposed of weekly in a Class III landfill. Onsite, the waste will be placed in dumpsters. Non-hazardous wastes are discussed below in Table 4.11-4.

Table 4.11-4 Non-Hazardous Wastes Generated During Project Operations

Waste Stream	Treatment
Used air filters	Recycle at nonhazardous waste facility
Sanitary wastewater	Liquids disposed to onsite septic system leach field

Wastewater

Depending on the chemical quality wastewater produced, it could be classified as hazardous or non-hazardous. Non-hazardous wastewater will be generated, including equipment washwater, stormwater runoff, and wastewater from pressure-testing the water and gas supply lines. Equipment washwater and hydrostatic test water will be contained at specifically designated wash areas and disposed of offsite after required testing and characterization. Stormwater runoff will be managed in accordance with the contractor-developed stormwater pollution prevention plan that will be approved by the appropriate agencies prior to the start of construction. The generation of non-hazardous wastewater will be minimized through water conservation and reuse measures. Sanitary waste will be treated in an onsite septic system.

Hazardous Waste

Non-hazardous materials will be used whenever possible to minimize the quantity of hazardous waste generated. Hazardous waste generated will include waste lubricating oil, absorbents, used filters, spent catalyst, lead-acid batteries, and chemical cleaning wastes. The catalyst units will contain heavy metals that are considered hazardous. Chemical cleaning wastes, consisting of alkaline and acidic cleaning solutions, will be generated from periodic cleaning of the piping. These wastes may contain high concentrations of heavy metals and will be collected for offsite disposal.

Hazardous waste will be managed at the Project site in compliance with CCR Title 22 requirements. Hazardous wastes will be removed by a licensed hazardous waste hauler, transported off site, and disposed of at a permitted hazardous waste facility under a required hazardous waste manifest. Copies of manifest reports, waste analysis, exception reports, destruction certifications, etc., will be kept on site and accessible for inspection for three years. Land disposal restriction notices/certificates will be kept on site and accessible for inspection for five years.

4.11.2.4 Waste Management

Waste Minimization

A waste minimization program will be implemented for operations and maintenance to reduce the volume of waste generated during construction and operation activities. The following general measures will be routinely employed to minimize the amount of hazardous waste generated by the Project:

- Operational improvements
- Changes in production processes and inputs
- Administrative controls (e.g., inventory control, in-house employee incentive programs and training, corporate/management commitment)

Specific practicable waste minimization methods that will be used include:

- Waste separation practices to maximize the opportunity for recycling
- Recycling of waste oil, used oil filters, solvents, and universal wastes

- Demineralized water treatment for the plant will use portable treatment units that will be shipped offsite for waste treatment and treatment unit regeneration

The effectiveness of source reduction approaches employed for each waste stream will be routinely evaluated to refine and improve the overall source reduction program. A summary of the management and minimization methods of each waste stream generated during the construction process is summarized in Table 4.11-5.

Table 4.11-5 Management of Wastes Generated During Project Operations

Waste	Waste Minimization and Management
Lubricating oil	Cleaned up using sorbent and rags—disposal of by certified oil recycler
Engine lubricating oil	Used oil recycled by certified oil recycler
Mineral oil	Used oil recycled by certified recycler only when transformer maintenance dictates
SCR catalyst	Recycled by SCR manufacturer or disposed of in Class I landfill
CO catalyst	Recycled by manufacturer
Oily rags, oil sorbent excluding lube oil flushes	Recycle or dispose at a permitted TSDF
Spent alkaline batteries waste solids	Recycle or dispose offsite at an Universal Waste Destination Facility
Spent lead acid batteries (sealed)	No additional batteries are planned to be stored on site – recycle offsite
Treated coolant water rust inhibitor, and washdown drainage	Shipped offsite for disposal if hazardous

4.11.2.5 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts are anticipated due to Project construction, operation, or maintenance.

4.11.3 Waste Disposal Sites

Table 4.11-6 describes three Class III waste disposal sites in the vicinity of the proposed Project, each of which is capable of accepting the non-hazardous solid waste that will be generated during project construction and operation.

Table 4.11-6 Summary of Class III Waste Disposal Sites in the Vicinity of the Project

Location	Characteristics					
	Current Annual Disposal Rate (tons per year)	Permitted Daily Disposal Rate (tons per day)	Actual Daily Disposal Rate (tons per day)	Remaining Capacity (million cubic yards)	Anticipated Year of Closure	Subject to Agency Enforcement Actions
Sycamore Landfill 8514 Mast Blvd. San Diego, CA 92071	889,584	3,965	2,542	47,388,428	2031	No
Borrego Landfill 2449 Palm Canyon Road Borrego Springs, CA 92004	4,904	50	50	478,836	2030	No

4.11 Waste Management

Location	Characteristics					
	Current Annual Disposal Rate (tons per year)	Permitted Daily Disposal Rate (tons per day)	Actual Daily Disposal Rate (tons per day)	Remaining Capacity (million cubic yards)	Anticipated Year of Closure	Subject to Agency Enforcement Actions
Otay Landfill 1700 Maxwell Road Chula Vista, CA 91911	1,489,072	5830	5,830	33,070,879	2021	No

Table 4.11-7 describes two Class I waste disposal facilities in the vicinity of the Project, each of which is capable of accepting state-regulated and Resource Conservation and Recovery Act (RCRA) hazardous waste solids that may be generated during the course of project construction and operation.

Table 4.11-7 Summary of Class I Solid Waste Disposal Facilities in the Vicinity of the Project

Location	Characteristics			
	EPA Identification Number	Current Disposal Rate (cy per year) ⁽⁵⁾	Anticipated Year of Closure	Subject to Agency Enforcement Actions
Clean Harbors, Inc. Buttonwillow 2500 W. Lokern Road Buttonwillow, CA 93206	CAD980675276	200,000-350,000 (1)	2030-2045	No
Chemical Waste 35251 Old Skyline Road Kettleman City, CA 93210	CAT000646117	500,000-750,000 (2)	2012	No

Table 4.11-8 provides information for wastewater treatment facilities capable of accepting and treating wastewater generated during project construction and operations.

Table 4.11-8 Wastewater Treatment Facilities in the Vicinity of the Project

Facility	EPA Identification Number#	Restrictions	Subject to Agency Enforcement Actions
Demunno Kerdoon 2000 North Alameda Str. Compton, CA 90222	CAT080013352	RCRA, Non-RCRA Hazardous Waste, and Non-Hazardous Waste	No
Crosby and Overton 1610 West 17 th Street Long Beach, CA 90813	CAD028409019	RCRA, Non-RCRA Hazardous Waste, and Non-Hazardous Waste	No
Veolia ES Tech. Sol. LLC 1704 W. First Street Azusa, CA 91702	CAD008302903	RCRA, Non-RCRA Hazardous Waste, and Non-Hazardous Waste	No

4.11.4 Facility Closure

When the power plant is closed, both non-hazardous and hazardous wastes must be handled properly. Closure can be temporary or permanent. Temporary closure would be for a period of time greater than the time required for normal maintenance, including overhaul of the reciprocating engine generator sets. Causes for temporary closure could be a disruption in the supply of natural gas or damage to the plant from earthquake, fire, storm, or other natural causes. Permanent closure would consist of a cessation in operations with no intent to restart operations and could be due to the age of the plant, damage to the plant beyond repair, economic conditions, or other unforeseen reasons. Handling of wastes for these two types of closure are discussed below.

4.11.4.1 Temporary Closure

For a temporary closure where there is no release of hazardous materials, plant security will be deployed 24 hours per day and the CEC will be notified. Depending on the length of shutdown, a contingency plan for the temporary cessation of operations will be implemented. This plan will be prepared prior to the Project startup and would ensure conformance with all applicable LORS and the protection of public health and safety and the environment. The plan, depending on the expected duration of the shutdown, could include draining all chemicals from storage tanks and other equipment and the safe shutdown of all equipment. All wastes will be disposed according to applicable LORS, as discussed in Section 4.11.7. Where the temporary closure is in response to facility damage, or where there is a release or threatened release of hazardous waste or materials into the environment, procedures will be followed as set forth in the Emergency Response Plan (ERP). Procedures include methods to control releases, notification of applicable authorities and the public, and emergency response and training for generating facility personnel in responding to and controlling releases of hazardous materials and hazardous waste. Once the immediate problem of hazardous waste and materials release is contained and cleaned up, temporary closure will proceed as described for a closure where there is no release of hazardous materials or waste.

4.11.4.2 Permanent Closure

The Project's PPA with SDG&E has a duration of 20 years after the start of commercial operations (2014 through 2034). However, operation of the plant could be longer. When the plant is permanently closed, the handling of non-hazardous and hazardous waste and hazardous materials will be part of a general closure plan that will attempt to maximize the recycling of all facility components. Unused chemicals will be sold back to the suppliers or other purchasers or users. All equipment will be drained of chemicals and shut down to protect public health and safety and the environment. All non-hazardous wastes will be collected and disposed in accordance with applicable LORS. The site will be secured 24 hours per day during the Project decommissioning activities.

4.11.5 Cumulative Impacts

The description of cumulative projects is included in Section 3.17. This section analyzes the potential cumulative impacts of the proposed Project when examined in the context of past, present and reasonably foreseeable projects.

The Project will produce small amounts of waste during construction, as described above in Section 4.11.2.1. The Project will also produce incremental amounts of hazardous and non-hazardous waste during operation, as described above in Section 4.11.2.2. Waste generation will be minimized, and most of the waste, both hazardous and non-hazardous, will be recycled.

The Project is anticipated to generate non-hazardous solid waste that will contribute to the total waste generated in San Diego County and in California. It is estimated that the Project will generate approximately 4,960 tons of solid waste during construction and about 1,040 cubic yards a year from operations (including approximately 80 tons of hazardous waste). This amount of waste is insignificant compared to the total amount generated throughout San Diego County, which totaled 2,991,620 tons of solid waste in 2010 (CIWMB 2010). Additionally, there is adequate recycling and landfill capacity in California to recycle and dispose of the waste generated by Project. The Project will be included in the San Diego County's Waste Reduction Program. Depending on the location within the County, the solid waste hauler will provide curbside collection of recyclables on a routine basis, and delivery of recyclables to recycling facilities. Therefore, the impact of the Project on solid waste recycling and disposal capacity is less than significant.

Hazardous waste generated during operation of the power plant will consist of waste oil, filters, SCR and oxidation catalysts, and cleaning compounds. Waste oil and catalysts will be transported for recycling or disposal offsite. Cleaning compounds or residual cleaning wastes will be removed and disposed of offsite. Hazardous waste treatment and disposal capacity in California is considered more than adequate for acceptance of the Project's residual waste streams. Therefore, the effect of the Project on hazardous waste recycling, treatment, and disposal capability is less than significant.

Therefore, cumulative effects from the Project and other projects in the region are not expected to be significant.

4.11.6 Mitigation Measures

The following mitigation measures, including Project design features and Best Management Practices (BMPs), will ensure that impacts from the Project are less than significant.

WM-1: A waste minimization program will be implemented for operations and maintenance to reduce the volume of waste generated during construction and operation activities. The following general measures will be routinely employed to minimize the amount of hazardous waste generated by the Project:

- Operational improvements
- Changes in production processes and inputs
- Administrative controls (e.g., inventory control, in-house employee incentive programs and training, corporate/management commitment)

Specific practicable waste minimization methods that will be used include:

- Waste separation practices to maximize the opportunity for recycling
- Recycling of waste oil, used oil filters, solvents, and universal wastes

- Demineralized water treatment for the plant will use portable treatment units that will be shipped offsite for waste treatment and treatment unit regeneration

The effectiveness of source reduction approaches employed for each waste stream will be routinely evaluated to refine and improve the overall source reduction program.

WM-2:

The Applicant will develop a comprehensive Waste Management Program in conjunction with all Project construction and operations activities. The purpose of the program is to create procedures for proper storage, labeling, packaging, recordkeeping, manifesting, use of waste minimization principles, and disposal of hazardous materials and waste. The program will implement practices for recycling, handling, and disposal of wastes that are proven to be effective for this type of project. Adherence to the program will also assure Project compliance with all applicable LORS. The following procedures will be included in the Waste Minimization and Management Program:

- A description of each hazardous waste stream
- Waste classification procedures
- Designation of waste and recyclable material storage locations
- Accumulation, handling, transport, treatment, and disposal procedures for each waste.
- Waste minimization procedures.
- Preparedness, prevention, contingency, and emergency procedures, including in the event of an unplanned closure or planned temporary facility closure.
- Regional disposal options available at licensed treatment and disposal facilities for waste that cannot be recycled.

WM-3:

All relevant facility employees, during the construction and operation phases of the Project will receive Waste Management training. The Waste Management training will emphasize LORS compliance, and will include:

- Awareness training for hazardous waste recognition, segregation, accumulation, and labeling
- Personal protection equipment training
- Inspection of satellite accumulation areas; spill contingencies; and waste minimization procedures.
- Procedures to reduce the volume of hazardous wastes generated at the projects.

WM-4:

The Applicant will obtain an Environmental Protection Agency Identification Number from the DTSC prior to generating any hazardous waste during construction or operation. Hazardous wastes will be accumulated on site for fewer than 90 days (or other accumulation periods, as allowed by Title 22 CCR

66262.34 for hazardous waste generators) and will be managed in accordance with state and federal hazardous waste generator requirements. Hazardous wastes and hazardous materials that are spilled or otherwise become unsuitable for use will be stored in an appropriately segregated hazardous waste storage area that is surrounded by a containment structure to control leaks and spills. The containment area will be constructed according to local codes and requirements. Hazardous waste containers and labels will be maintained according to applicable regulations. The hazardous waste storage areas will be inspected and maintained at least weekly, as required by Title 22 CCR.

WM-5: Hazardous wastes will be collected by a licensed hazardous waste hauler and disposed of at a hazardous waste facility. Hazardous wastes are transported off site using a hazardous waste manifest. Copies of manifest reports, waste analysis, exception reports, destruction certifications, etc., will be kept on site and accessible for inspection for three years. Land disposal restriction notices/certificates will be kept on site and accessible for inspection for five years.

4.11.7 Laws, Ordinances, Regulations, and Standards

Non-hazardous and hazardous waste handling at the Project will be governed by federal, state, and local laws. Applicable laws and regulations address proper waste handling, storage, and disposal practices to protect the environment from contamination and to protect facility workers and the surrounding community from exposure to non-hazardous and hazardous waste. Table 4.11-9 presents a summary of the LORS applicable to waste handling at the power plant.

Table 4.11-9 Applicable LORS for Waste Management

LORS	Purpose	Applicability (AFC Section Explaining Conformance)
Federal		
RCRA Subtitle D	Regulates design and operation of solid waste landfills	Solid waste will be collected and disposed of in conformance with Subtitle D. (Subsection 4.11.3)
RCRA Subtitle C	Controls storage, treatment, and disposal of hazardous waste	Hazardous waste will be handled by contractors in conformance with Subtitle C. (Subsection 4.11.2).
Clean Water Act	Controls discharge of wastewater to the surface waters of the U.S. Applies to waste water discharged to the City of San Diego Industrial Wastewater Control Program	Project will discharge plant and sanitary wastewater under an industrial permit, to City of San Diego in accordance with waste discharge requirements. Project will conform to Waste Discharge Requirements (WDRs) established by the City. Ultimate discharge will take place under the City’s NPDES permit. (Subsections 4.11.1)
49 CFR Parts 172, 173, 179.	Meet standards for labels, placards, and markings on hazardous waste shipments	Hazardous waste containers and vehicles used for shipping hazardous waste from the Site will be labeled according to regulations

4.11 Waste Management

LORS	Purpose	Applicability (AFC Section Explaining Conformance)
State		
California (CA) Integrated Waste Management Act (CIWMA)	Controls solid waste collectors, recyclers and depositor	Project solid waste will be collected and disposed of by a collection company in conformance with the CIWMA. (Subsection 4.11.3)
CA Hazardous Waste Control Law (HWCL)	Controls storage, treatment, and disposal of hazardous waste	Hazardous waste will be handled by contractors in conformance with HWCL. (Subsection 4.11.1)
Porter-Cologne Water Quality Control Act	Controls discharge of wastewater to the surface and ground waters of California. Applies to waste water discharged to the City of San Diego Industrial Wastewater Control Program (IWCP)	Project will discharge industrial and sanitary wastewater to the City of San Diego's sanitary sewer. Discharge will be in accordance with WDRs established by permit to allow the City (IWCP) to conform to the requirements of its NPDES permit. (Subsection 4.11.1)
California Fire Code	Controls storage of hazardous materials and wastes and the use and storage of flammable/combustible liquids	Wastes will be accumulated and stored in accordance with Fire Code requirements. Permits for storage containers will be obtained from the City of San Diego Fire Department. (Subsection 4.11.2)
Local		
City of San Diego General Plan	Section 8 of City's General Plan identifies Department of Public Works as responsible department within city to administer solid waste management rules	Identifies policies and programs for waste management in the City of San Diego. (Subsection 4.11.5)
County of San Diego Code of Regulatory Ordinances, Title 6 - Health and Sanitation, Division 8 – Sewage and Refuse Disposal, Chapter 7	Prevent accumulation of junk	The Project will prevent the accumulation of junk materials/equipment through routine offsite shipment of waste and recyclable materials. (Subsection 4.11.1)

Federal

The RCRA, 42 USC, Section 6901 to 6992k, provides the basic framework for federal regulation of solid wastes (nonhazardous and hazardous waste), landfills, underground storage tanks, and certain medical wastes. RCRA's Subtitle D establishes state responsibility for regulating nonhazardous wastes, including provisions for the design and operation of solid waste landfills. Subtitle C controls the generation, transportation, storage, and disposal of hazardous waste through a comprehensive "cradle to grave" system of hazardous waste management techniques and requirements. 40 CFR, Subchapter I, Solid Wastes, was established to implement the provisions of the RCRA. The regulations establish the criteria for classification of solid waste disposal facilities (landfills) hazardous waste characteristic criteria and regulatory thresholds, hazardous waste generator requirements, and requirements for the management of used oil and universal waste. The USEPA is responsible for implementing the law, and the implementing regulations are set forth in 40 CFR 260, et seq. The law allows USEPA to delegate the administration of the RCRA programs to the various states provided that the state programs

meet the federal requirements. California's program was authorized by USEPA on August 1, 1992, and the California EPA's DTSC is responsible for administering the program.

Title 49 CFR, Parts 172 and 173, addresses the DOT established standards for transport of hazardous materials and hazardous wastes. The standards include requirements for labeling, packaging, and shipping of hazardous materials and hazardous wastes, as well as training requirements for personnel completing shipping papers and manifests. Section 172.205 specifically addresses use and preparation of hazardous waste manifests in accordance with Title 40, CFR, Section 262.20.

The CWA, 33 USC, Section 1251 et seq., provides the regulatory framework for managing the discharge of wastewater to surface waters of the United States. USEPA has nationwide authority to implement the CWA, but states may be authorized to administer various aspects of the National Pollutant Discharge Elimination System (NPDES) as well as pretreatment programs. California is authorized under the CWA to administer the NPDES program, implement publicly owned treatment works' pretreatment programs, oversee federal facilities, and issue general permits.

The Applicant will obtain an Environmental Protection Agency Identification Number from the DTSC prior to generating any hazardous waste during construction or operation.

State

Nonhazardous solid waste is regulated by the California Integrated Waste Management Act (CIWMA), PRC Division 30, Section 40000 et seq. The CIWMA addresses the solid waste landfill diversion requirement and provides a solid waste management system to reduce, recycle, and reuse solid waste generated in the state to the maximum extent feasible in an efficient and cost-effective manner to conserve natural resources, protect the environment, and improve landfill safety. Local agencies are required to develop and establish recycling programs, reduce paper waste, purchase recycled products, and implement integrated waste management programs that conform to the state's requirements. The County of San Diego Department of Environmental Health (DEH), Local Enforcement Agency (LEA) has the authority to verify the proper storage and disposal of solid waste in San Diego County.

As stated previously, RCRA allows states to develop their own programs to regulate hazardous waste. California developed its own program by passage of the California Hazardous Waste Control Law (CHWCL), California Health and Safety Code, Section 25100 et seq. The California law provides the framework under which hazardous wastes must be managed in California. The law provides for the development of a state hazardous waste program that administers and implements the provisions of the federal RCRA program. It also provides for the designation of California-only hazardous wastes (non-RCRA hazardous wastes) and the development of standards that are equal to or, in some cases, more stringent than federal requirement. In addition, the law specifies two hazardous waste criteria (Soluble Threshold Limit Concentration and Total Threshold Limit Concentration) that are not required under RCRA.

Title 22, CCR Division 4.5, establishes requirements for the management and disposal of hazardous waste in accordance with the CHWCA and deferral RCRA. As with the federal requirements, waste generators must determine if their wastes are hazardous according to specified characteristics or lists of hazardous wastes. Hazardous waste generators must obtain

identification numbers; prepare manifests before transporting hazardous waste off site; and use only permitted treatment, storage, and disposal facilities. Generator standards also include requirements for recordkeeping, reporting, packaging, and labeling. Additionally, California requires that hazardous waste is transported by licensed hazardous waste transporters. California Health & Safety Code, Chapter 6.11, established the Certified Unified Program Agency (CUPA), which consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for hazardous materials and hazardous waste management.

Primary authority for the statewide administration and enforcement of California's hazardous waste laws rests with the DTSC. However, the County of San Diego DEH, Hazardous Materials Division (HMD), is the CUPA for this project and provides most regulatory functions covering hazardous waste generators. Accumulation of hazardous waste on site is regulated under the CCR, Section 66262.34. Hazardous waste cannot be accumulated on site for more than 90 days, so any hazardous waste stored at the Project site will have to be appropriately transported for recycling or disposal within that time period.

Wastewater is regulated under California's Porter-Cologne Water Quality Control Act, which established a statewide system for water pollution control. See California Water Code, Section 13000 et seq. The State Water Resources Control Board and the nine Regional Water Quality Control Boards are the principal agencies responsible for control of water quality and issuing permits under the NPDES program.

Local

The San Diego County Solid Waste Management Program is certified by the CIWMD as the LEA for solid waste facilities in San Diego County and provides guidance for remediation of contaminated sites and for siting and management of facilities that store, collect, treat, dispose, or transfer hazardous wastes.

The City of San Diego manages waste generation, recycling, and disposal programs through its Department of Environmental Services. The City of San Diego has passed a Construction and Demolition (C&D) ordinance. To meet the requirements of the C&D ordinance, the Applicant will submit a Recycling and Solid Waste Management Form. The form must comply with City of San Diego and state solid waste and recycling and diversion regulations and standards prior to approval.

For hazardous waste, the designated CUPA for the Project site is the County of San Diego DEH, HMD, which has delegated authority to administer state and federal programs. The CUPA regulates the storage of hazardous materials in underground storage tanks and cleanup of petroleum releases from underground storage tanks under the City of San Diego General Plan requirements.

The County of San Diego DEH, HMD, and the San Diego RFPD will be contacted in the event of a release of hazardous wastes or materials to the environment. The County of San Diego DEH, HMD, assumes enforcement responsibility for the implementation of Title 23 of the CCR and regulates the generation and storage of hazardous waste for the PPEC area.

The San Diego County Fire Department has a countywide Hazardous Materials (HazMat) team consisting of firefighters who have completed formal training in hazardous materials incident response. The HazMat team can respond to emergencies in San Diego County to identify the type and source of hazardous material, oversee evacuation, and to assist in confining the spill.

4.11.8 Agencies and Agency Contacts

Agencies with jurisdiction to issue applicable permits or enforce LORS related to waste management are provided in Table 4.11-10.

Table 4.11-10 Agencies and Agency Contacts for Waste Management

Topic	Agency	Name	Title	Phone	Email	Mailing Address
Hazardous waste regulations	California Environmental Protection Agency Department of Toxic Substances Control	Andre Amy	Duty Officer	(818) 771-6500	aamy@dtsc.ca.gov	9211 Oakdale Avenue Chatsworth, CA 91311-6505
Water quality protection regulations for non-hazardous solid waste	San Diego Regional Water Quality Control Board	John Robertus	Executive Director	(858) 467-2952	JRobertus@waterboards.ca.gov	151 East Carmel Street San Marcos, CA 92078
County Health and Sanitation Code Enforcement	Department of Planning and Land Use, County of San Diego	Tim Kirkland	Code Enforcement Coordinator	(760) 940-2855	Tim.Kirkland@sdcounty.ca.gov	5201 Ruffin Road, Suite B San Diego, CA 92123
Release of hazardous materials	County of San Diego Department of Environmental Health, Hazardous Materials Division	J. Swanson	Environmental Health Specialist II	(619) 338-2232	Hmdutyeh@sdcounty.ca.gov	PO Box 129261 San Diego, CA 92112
Industrial and sanitary wastewater discharge	City of San Diego Public Utilities Department, Wastewater Branch Industrial Wastewater Control Program	Brian Taylor	Area Inspector	(858) 654-4100	BTaylor@sandiego.gov	9192 Topaz Way San Diego, CA 92123-1119

4.11.9 Required Permits and Permitting Schedule

The Applicant will obtain an Environmental Protection Agency Identification Number from the DTSC prior to generating any hazardous waste during construction or operation. The Project will conform to Waste Discharge Requirements (WDRs) established by the City, with eventual surface water discharge taking place under the City’s National Pollutant Discharge Elimination System (NPDES) permit.

The Applicant will be required to develop a Hazardous Waste Management Plan for the County of San Diego Department of Environmental Health, Hazardous Materials Division.

The Applicant will be required to prepare and implement a Construction and Demolition Recycling and Solid Waste Management Form for the City of San Diego, Department of Environmental Services.

A summary of applicable permits is presented in Table 4.11-11.

Table 4.11-11 Applicable Permits and Schedule

Responsible Agency	Permit/Approval	Schedule
Department of Toxic Substances Control (DTSC)	USEPA Hazardous Waste Generator Identification Number	30 days prior to generation of hazardous waste
County of San Diego Department of Environmental Health (DEH), Hazardous Materials Division (HMD)	Hazardous Waste Generator Program Permit; Hazardous Materials Business Plan	30 days prior to generation of hazardous waste and storage of hazardous materials on site
City of San Diego, Department of Environmental Services	Waste Management Form	60 days prior to construction

4.11.10 References

California Integrated Waste Management Board (CIWMB). 2010. Solid Waste Information System Database 2010 information downloaded from <http://www.calrecycle.ca.gov/SWFacilities/Directory>.

DATA ADEQUACY WORKSHEETS

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (1) (C)	A detailed description of the design, construction and operation of the facilities, specifically including the power generation, cooling, water supply and treatment, waste handling and control, pollution control, fuel handling, and safety, emergency and auxiliary systems, and fuel types and fuel use scenarios; and	2.2		
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	4.11.4		
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	4.11.1, 4.11.2, 4.11.3, 4.11.5, 4.11.6		
Appendix B (g) (12) (A)	A Phase I Environmental Site Assessment (ESA) for the proposed power plant site using methods prescribed by the American Society for Testing and Materials (ASTM) document entitled "Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process" (Designation: E 1527-93, May 1993), which is incorporated by reference in its entirety; or an equivalent method agreed upon by the applicant and the CEC Staff that provides similar documentation of the potential level and extent of site contamination. The Phase I ESA shall have been completed no earlier than one year prior to the filing of the AFC.	4.11.1.1, Appendix G		

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (12) (B)	A description of each waste stream estimated to be generated during project construction and operation, including origin, hazardous or nonhazardous classification pursuant to Title 22, California Code of Regulations, § 66261.20 et seq., chemical composition, estimated annual weight or volume generated, and estimated frequency of generation.	4.11.2		
Appendix B (g) (12) (C)	A description of all waste disposal sites which may feasibly be used for disposal of project wastes. For each site, include the name, location, classification under Title 23, California Code of Regulations, § 2530 et seq., the daily or annual permitted capacity, daily or annual amounts of waste currently being accepted, the estimated closure date and remaining capacity, and a description of any enforcement action taken by local or state agencies due to waste disposal activities at the site.	4.11.3		
Appendix B (g) (12) (D)	A description of management methods for each waste stream, including methods used to minimize waste generation, length of on- and off-site waste storage, re-use and recycling opportunities, waste treatment methods used, and use of contractors for treatment.	4.11.2		
Appendix B (h) (1) (B)	A discussion of any measures proposed to improve adverse site conditions.	4.11.6		
Appendix B (h) (1) (D) (v)	The waste disposal system and on-site disposal sites;	4.11.2		

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	4.11.8		
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	4.11.8		
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	4.11.8		
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	4.11.9		