

### 6.14 WASTE MANAGEMENT

This section presents a discussion of potential impacts from the generation, storage, and disposal of hazardous and non-hazardous wastes from the proposed Canyon Power Plant (CPP). Included in the discussion are descriptions of waste streams generated during construction and operation, descriptions of applicable waste disposal sites to be used by facility, proposed waste mitigation methods to minimize impacts to the environment, and applicable laws, ordinances, regulations, and standards (LORS).

The Canyon Power Plant (CPP) will consist of a nominal 200-megawatt (MW) simple-cycle plant, using four natural gas-fired General Electric LM 6000PC Sprint combustion turbines and associated infrastructure. The project site is located at 3071 East Miraloma Avenue, in a City of Anaheim (COA)-designated industrial zone.

The CPP and associated construction laydown areas will be located on approximately 10 acres of disturbed land located at 3071 East Miraloma Avenue. Main access to the CPP site will be at the southeast corner of the project site from East Miraloma Avenue. A second gated entrance will be accessible via East Miraloma Avenue with a third gate off the alley to the east of the site. (Total land disturbance will be approximately 10 acres.)

The existing CPP site is predominantly paved (concrete and asphalt). Principal land use for the site was food catering for a fleet of approximately 75 to 100 trucks, formerly operated by Orange County Food Service. Onsite structures include a kitchen/warehouse building, maintenance garage (9 service bays), truck wash facility (5 bays), two ice manufacturing buildings, several storage sheds, and an outdoor truck repair shop which includes storage lockers and petroleum products, all of which will be demolished as a part of the CPP project.

The following activities are not part of the CPP project:

- Three residential houses along East Miraloma Avenue have recently been removed and are not a part of this Application for Certification (AFC). The COA Risk Manager and Fire Department determined that the residential units posed security and fire risks, and therefore they were removed. A letter from the COA Risk Manager to the Public Utilities Department is included in Appendix Q.
- Soil remediation activities associated with Phase I, Phase II, and Supplemental Phase II reports. The COA, now as owner of the property, has determined that it will conduct any soil remediation activities to limit its environmental liability for future uses of the site. These activities will occur regardless of whether the CPP project obtains a CEC license.
- Installation of a temporary, 8-foot-high security fence around the perimeter of the entire 10-acre site.
- General maintenance activities including site cleanup and trash removal.

The project will include the construction and/or installation of the following components:

- **Proposed CPP site.** In addition to the four natural gas-fired GE LM 6000PC Sprint gas turbines, the plant will include generator step-up transformers (GSUs), a 69 kilovolt (kV) switchyard, onsite fuel gas compressors, a gas pressure control and metering station, a packaged chilled water system for combustion turbine engine (CTG) power augmentation with associated heating ventilation and air conditioning (HVAC)-type four-cell cooling tower, selective catalytic reduction system (SCR) emission control systems, and other associated plant infrastructure.
- **Gas pipeline.** Natural gas will be provided via a new 3,240-foot-long, 12-inch, 350 pounds per square inch gauge (psig) gas line owned and maintained by SoCal Gas Company (SCGC), which will be connected to new onsite fuel gas compressors that will be part of the CPP facility. From the CPP site, this new pipeline will run approximately 580 feet east in East Miraloma Avenue to Kraemer Boulevard, then north 2,660 feet in Kraemer Boulevard to East Orangethorpe Avenue to connect into SCGC's transmission line L-1218 in East Orangethorpe Avenue. (Total land disturbance will be 0.219 acre.)
- **Process water.** Process water for the project will be recycled water supplied from the Orange County groundwater replenishment system (GWRS) via a new 2,185-foot-long, 14-inch pipeline utilizing a new offsite booster pump station. The water pipeline will run east of the site on the north side of East Miraloma Avenue for 1,850 feet to the new pumping station located north of the curb in the COA-owned easement of East Miraloma Avenue, then north 210 feet in new easement from the Orange County Water District (OCWD), then 125 feet easterly in new easement to the GWRS line on the western side of the Carbon Canyon Diversion Channel. There, it will connect to the 60-inch-diameter GWRS recycled water line at an existing 36-inch stub up. (Total land disturbance for both line and pumping station will be 0.246 acre.)
- **Electrical interconnection.** Underground 69 kV cables will connect from GSUs to the onsite switchyard, which will use gas-insulated switchgear (GIS). There will be four new underground 69 kV circuits leaving the site. Two will proceed underneath and to the south side of East Miraloma Avenue approximately 100 feet to rise up and connect to the existing 69 kV overhead Vermont-Yorba lines via two new transition structures. The second two 69 kV underground circuits will proceed eastward approximately 4,000 feet in East Miraloma Avenue, turn south on Miller, then proceed approximately 3,000 feet to connect to the Dowling-Yorba 69 kV line at East La Palma Avenue. (Total land disturbance for both sets of cables will be 0.489 acre.)
- **Communications.** Fiber optic cable will run in a common trench with the approximately 7,000-foot 69 kV electric cables, where it will tie into existing underground fiber optic cable for the supervisory control and data acquisition (SCADA) system.

### 6.14.1 Affected Environment

#### 6.14.1.1 Plant Site

A Phase I Environmental Site Assessment (ESA) of the proposed CPP site has been prepared in accordance with the American Society for Testing Materials (ASTM) Practice E 1527-00. The objective of the Phase I ESA was to identify “Recognized Environmental Conditions” (RECs) that may exist on the CPP site. The site currently includes mixed commercial and residential land uses, consisting of industrial food catering, vending services, trucking-related uses (truck maintenance, parking, washing, and office space), and a demolition debris contractor. Miller Retarding Basin, which is a groundwater replenishment area, is located east-northeast of the site and includes Miller Basin and Kraemer Basin. The site vicinity generally includes industrial land uses and there is no future residential development anticipated in the immediate vicinity of the site. Other results of the Phase I ESA are located in Confidential Appendix M.

Based on the findings of the Phase I ESA of the site, a Phase II assessment and a supplemental Phase II ESA were performed in 2006 and 2007, respectively. Based on the findings and conclusions of the site assessments, the following recommendations are presented:

Prior to site redevelopment, onsite underground structures, including septic tanks, underground storage tanks (USTs), clarifiers, and hydraulic hoists, will be properly removed and disposed of. Additional confirmation testing maybe required following removal, per applicable regulations.

A soil management plan will be prepared to address soil impacted with metals, semi-volatile organic compounds (SVOCs), and/or total petroleum hydrocarbons (TPH-cc) at concentrations above the preliminary remediation goals (PRGs) to protect human health and the environment.

- **Lead** – No remediation is needed for the lead based because concentrations are below the U.S. Environmental Protection Agency (USEPA) Region IX PRG for lead in soil at an industrial site. However, if grading or excavating is conducted in the southwestern portion of the site, shallow soil within the area that once contained residential property would likely need to be classified as non-Resource Conservation and Recovery Act (RCRA) California designated hazardous waste because of the soluble threshold limits concentrations (STLC) lead concentrations exceeded 5 milligrams per liter (mg/L). All disposal of excavated soil will be completed per applicable Federal/State and Local regulations.

- **Arsenic** – There are elevated concentrations of arsenic in the soil. However these concentrations are considered to be within the range of naturally occurring arsenic concentrations for southern California.
- **SVOCs** – There was one sample location that had a detection of benzo(a)pyrene above the USEPA Region IX PRG for an industrial site. However, this was an isolated exceedance and the area is likely to be excavated due to TPH-cc.
- **TPH-cc** – There are three areas that are recommended for excavation in order to meet the generally accepted level of 1,000 milligrams per kilogram (mg/kg) for TPH heavier-range compounds. These three areas are located in the northern portion of the site where the former automotive garage operations occurred. Area 1 is estimated to be 40 feet long by 10 feet wide and 28 feet deep. Area 2 is estimated to be 20 ft feet long by 10 feet wide 20 feet deep. Area 3 is estimated to be 6 feet by 6 feet and 3 feet deep. The actual depth of excavation required will be determined based on the conditions encountered during excavation, and in coordination with the lead agency and field conditions encountered during excavation. These plans are described in more detail in the Supplemental Phase II Report (URS, 2007).

A post-excavation confirmation sampling plan will be prepared to assure the proper removal of impacted soil.

As described in more detail below in Section 6.14.2, the CPP will generate hazardous and non-hazardous wastes during the construction and operation phases of the project typical of a natural gas-fired combustion turbine power plant.

The above-described remediation activities are proposed for the CPP site prior to licensing and construction of the project. These remediation activities are required to be completed prior to the redevelopment of this site based on the results of the site assessments. Redevelopment of any new project on this site will necessitate remediation pursuant to the activities previously described.

#### **6.14.1.2 Offsite Structures**

Natural gas will be supplied by SCGC. The project will connect into SC Gas transmission L-1218 in East Orangethorpe Avenue through a new pipeline, 12 inches in diameter. The pipeline will be routed as shown on Figure 3-1.

#### **6.14.1.3 Non-hazardous Solid Waste Disposal**

Existing non-hazardous solid waste disposal facilities in the general vicinity of the CPP are listed in Table 6.14-1. Several available Class III landfills are listed in Table 6.14-1 that accept non-hazardous wastes and inert solid wastes, including construction/demolition

**TABLE 6.14-1  
WASTE RECYCLING/DISPOSAL FACILITIES**

Solid Recycling/Waste Disposal Site <sup>1</sup>	Title 23 Class	Permitted Throughput	Permitted Capacity	Remaining Capacity	Estimated Closure Date	Enforce Action Taken
Frank R. Bowerman Sanitary LF 11002 Bee Canyon Access Road Irvine, CA 92618	III	8.5 thousand tons/day	127 million cubic yards	59.4 million cubic yards	2022	No
Prima Deshecha Sanitary Landfill 32250 La Pata Avenue San Juan Capistrano, CA 92675	II, III	4 thousand tons/day	172.9 million cubic yards	87.4 million cubic yards	2033	No
Olinda Alpha Sanitary Landfill 1942 N. Valencia Avenue Brea, CA 92823	III	8 thousand tons/day	74.9 million cubic yards	38.6 million cubic yards	2013	No
Chemical Waste Management Kettleman Hills Landfill (Solid Disposal) 35251 Old Skyline Road Kettleman City, CA 93239	I	8 thousand tons/day	10.7 million cubic yards	6 to 7 million cubic yards	Not available	No
Clean Harbors Buttonwillow Landfill (Solid Disposal) Lokern Road Kern County, CA	I	10.48 thousand tons/day	14.29 million cubic yards	Not available	2040	No
American Remedial Technologies (Solid Recycling) 2680 Seminole Avenue Lynwood, CA 90262	Not Applicable	25 thousand tons/month	0.3 million tons per year	Not available	Not available	No
TPS Technologies, Inc.(Soil Recycling) 12328 Hibiscus Avenue Adelanto, CA 92301	Not Applicable	1.35 thousand tons/day	0.35 million tons	Not available	Not available	No

<sup>1</sup> Data obtained from CIWMB Solid Waste Inventory System Database.

wastes. Liquid wastes are not accepted by these landfills. Industrial process solid waste is accepted on a case-by-case basis.

There are several soil treatment and soil recycling facilities in California that accept hydrocarbon-impacted soil that is classified by the generator as a non-hazardous waste per the RCRA and the California Code of Regulations (CCR) Title 22. Acceptable levels for treatment or recycling are established by the individual facilities.

#### **6.14.1.4 Hazardous Solid Waste Disposal**

Hazardous waste generated at the CPP site will be taken offsite for recycling or disposal by a permitted hazardous waste transporter to a permitted treatment, storage, and disposal facility or Class I landfill. There are two Class I landfills located in California: Clean Harbors' Buttonwillow Landfill in Kern County and Chemical Waste Management's Kettleman Hills Landfills. These landfills are described in Table 6.14-1. Hazardous waste generated during construction and operations phases at the CPP is not expected to significantly impact available landfill capacity.

#### **6.14.1.5 Hazardous and Non-hazardous Wastewater (Non-effluent Waste Streams)**

There is one California wastewater treatment and recycling facility that accepts RCRA hazardous, non-RCRA hazardous, and non-hazardous wastewater. The DeMenno/Kerdoon facility located in Compton, California receives an average of approximately 82,200 gallons per month of waste oil and oil water. The operating capacity is approximately 4.6 million gallons per month of waste oil and 84.1 million gallons per year of oily water. Oil is recovered and recycled at DeMenno/Kerdoon. Other nearby recycling facilities that accept used oil include Advanced Environmental, Inc. in Fontana; Evergreen Oil in Irvine; and Industrial Service Oil Company, Inc. in Downey.

#### **6.14.2 Environmental Consequences**

The analysis of impacts related to waste management from the CPP is based on significance criteria summarized as follows:

- 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.

Additionally, according to the California Environmental Quality Act (CEQA) Appendix G Guidelines, 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 which pose a hazard
- Results in a need for new systems or substantial alterations to waste disposal facilities

The following sections describe the wastes that are expected to be generated during construction and operation of the CPP, and how non-hazardous solid waste, wastewater, and hazardous solid and liquid wastes will be disposed.

#### **6.14.2.1 Construction**

The CPP will generate wastes typical for the construction of natural gas-fueled combustion turbine generator (CTG) power plants. Table 6.14-2 summarizes the anticipated waste streams to be generated during construction, along with appropriate management methods for treatment or disposal.

##### **6.14.2.1.1 Construction-related Non-hazardous Solid Waste.**

**Paper, Wood, Glass, and Plastics.** Paper, wood, glass, and plastics will be generated from packing materials, waste lumber, insulation, and empty non-hazardous chemical containers. Up to 10 tons of these types of wastes could be generated during project construction.

**Metals.** Waste metals will be generated from welding/cutting operations during construction, packing materials, and empty non-hazardous chemical containers. Aluminum waste will be generated from packing materials and electrical wiring. Up to 15 tons of waste metal could be generated during construction.

**Soil.** During the onsite and offsite construction, soil and surface demolition debris (concrete, asphalt, and piping) are anticipated. These wastes may be transported and disposed of at an appropriate disposal facility. If contaminated soils are encountered during construction, these soils will need to be managed in accordance with applicable LORS and disposed of at appropriate facilities. Soil sampling will be conducted to characterize the waste prior to disposal. See Section 6.14.1.1 for a more detailed description of impacted soil areas.

Paper, wood, glass, plastics, and metals wastes will be segregated, where practical, for recycling. Non-recyclable wastes will be placed in covered dumpsters and removed on a regular basis by a certified waste handling contractor for disposal at a Class III landfill. Soil will be recycled as fill for grading and elevation, and it is expected that all soils will be used for this purpose onsite. If excess soils remain after grading, they will be disposed of as a non-hazardous waste at a Class III landfill or soil recycling facility, or disposed of as hazardous

**TABLE 6.14-2  
SUMMARY OF CONSTRUCTION WASTE  
STREAMS AND MANAGEMENT METHODS**

Material	Hazardous Classification	Estimated <sup>1</sup> Amount	Disposal Method
Paper, wood, glass, and plastics	Non-hazardous	10 tons	Weekly collection for recycling and/or disposal at a Class III Landfill
Metals	Non-hazardous	15 tons	Weekly collection for disposal at a Class III Landfill
Concrete	Non-hazardous	3,000 tons	Recycling dumpsters. If not recyclable, then disposal as a Class III Landfill
Empty Hazardous Containers	Hazardous Recyclable	2 cubic yards/week	Recondition, recycle, or waste disposal at Class I landfill
Waste paint, thinners and solvents	Hazardous	2 gal/week	Hazardous waste disposal facility or recycle
Oily rags	Hazardous	Less than one cubic yard per week	Hazardous waste disposal facility or recycle
Oil absorbents	Hazardous	Less than one cubic yard per week	Hazardous waste disposal facility or recycle
Waste Welding materials	Hazardous	Less than one cubic yard per week	Hazardous waste disposal facility or recycle
Waste oil	Hazardous	20 gal/week	Hazardous waste disposal facility or recycle
Spent Batteries; lead acid	Hazardous Recyclable	2 batteries/year	Recycle
Spent Batteries; alkaline	Hazardous Recyclable	60 batteries/month	Recycle

<sup>1</sup> All numbers are estimated.

waste at a Class I landfill. The disposal options will depend on the characterization of the waste per RCRA and CCR Title 22 criteria. Waste disposal facilities are listed in Table 6.14-1.

**6.14.2.1.2 Construction-related Hazardous Waste.** Most of the hazardous waste generated during construction will consist of liquid waste, such as flushing and cleaning fluids, passivating fluid (to prepare pipes for use), and solvents. Some hazardous solid waste such as welding materials, dried paint from construction activities, and possibly asbestos-containing materials may also be generated. Flushing and cleaning waste liquid will be generated as pipes are cleaned and flushed. The volume of flushing and cleaning liquid waste generated is estimated to be one to two times the internal volume of the pipes cleaned. The quantity of welding, solvent, and paint waste is expected to be minimal.

Hazardous wastes generated during facility construction will be handled and disposed of in accordance with applicable LORS. Hazardous wastes will be either recycled or disposed of in a licensed Class I disposal facility, as appropriate. Managed and disposed of properly, these wastes will not cause significant environmental or health and safety impacts. Most of the hazardous waste generated during construction, such as turbine cleaning wastes and used oil, can be recycled. The small quantities of hazardous waste that cannot be recycled are not expected to significantly impact the capacity of the Class I disposal facilities in California.

**Construction-related Wastewater.** Wastewater generated during construction will include sanitary waste, stormwater runoff, equipment washdown water, wastewater from pressure testing the gas supply line after it is constructed, and water from excavation dewatering during construction (if dewatering is required). Depending on the chemical quality of these wastewaters, they could be classified as hazardous or non-hazardous. The wastewaters will be sampled and if they are hazardous would be collected by a licensed hazardous waste hauler and disposed of at a licensed hazardous waste facility. Construction-related wastewater will be managed according to appropriate LORS. A construction SWPPP is included in Appendix N.

#### **6.14.2.2 Operations**

Operation of the facility will generate wastes resulting from processes, routine facility maintenance, and office activities typical of natural gas-fueled CTG power plant operations. The operating waste streams and management methods are summarized in Table 6.14-3 and are described in more detail below.

**6.14.2.2.1 Operations-related Non-hazardous Solid Wastes.** The CPP will produce maintenance and plant wastes typical of CTG power generation operations. The following types of non-hazardous solid waste may be generated: rags, CTG inlet air filters, broken and rusted metal and machine parts, defective or broken electrical materials, empty containers, and other miscellaneous solid wastes, including the typical refuse generated by workers and small office operations.

Office paper, newsprint, aluminum cans, wood, insulation, yard debris, gravel, scrap metal, cardboard, glass, plastic containers, and other non-hazardous waste material will be segregated and recycled to the extent practical, and the remainder will be removed on a regular basis by a certified waste-handling contractor for disposal at a Class III landfill.

#### **6.14.2.2.2 Operations-related Wastewater.**

**Wastewater.** Industrial wastewater will consist of cooling tower/chillers blowdown, reverse osmosis (RO) reject, condensation drains from the CTG intercoolers, and oil-water separator effluent. Municipal wastewater will consist of plant and sanitary sewer drainage.

**TABLE 6.14-3  
HAZARDOUS WASTES GENERATED  
AT THE FACILITY DURING OPERATIONS**

Waste	Origin	Composition	Estimated Quantity	Classification	Disposal
Lubricating oil	Gas turbine lubricating oil system	Hydrocarbons	Small amounts from leaks and spills	Hazardous	Cleaned up using absorbents and rags – disposed of by certified oil recycler
Lubricating oil filters	Gas turbine lubricating oil system	Paper, metal, and hydro-carbons	Approximately 12 per year	Hazardous	Recycled by certified oil recycler
Laboratory analysis waste	Water treatment	Miscellaneous analysis reagent chemicals	Approximately 50 gallons per year	Hazardous	Recycled by certified recycler
Spent SCR & CO catalyst units	SCR/CO system	Metal and heavy metals, including vanadium	Catalyst changed out every few years	Hazardous	Recycled by SCR/CO manufacturer or disposed of in Class I landfill
Oily rags	Maintenance, wipe down of equipment, etc.	Hydrocarbons, cloth	Approximately 800 rags per year	Hazardous	Recycled by certified oil recycler
Oil absorbents	Cleanup of small spills	Hydrocarbons	Approximately 200 lb/yr	Hazardous	Recycled or disposed of by certified oil recycler
Cooling tower sludge	Deposited in cooling tower basin by cooling water	Dirt from air, arsenic from water	200 lb/yr	Potentially hazardous, but usually not	Class II landfill if non-hazardous; Class I if hazardous
Chemical feed area drainage	Spillage, tank overflow, area washdown water	Water with water treatment chemicals	Minimal	May be hazardous if corrosive	Onsite neutralization, if required, then discharged to cooling tower basin

Circulating (or cooling) water system blowdown will consist of raw makeup water and other recovered process wastewater sources that have been concentrated by evaporative losses in the cooling tower, and residues of the chemicals added to the circulating water. These chemicals will control scaling and biological growth in the cooling tower and corrosion of the circulating water piping and heat exchanger tubes. Cooling water treatment will require the addition of a pH (potential of hydrogen) control agent (acid), a mineral scale dispersant, corrosion inhibitors, and biocide. A portion of this concentrated water will then be removed from the cooling tower via the blowdown to prevent the mineral scale formation on heat transfer surfaces and to ensure compliance with air quality regulations. The blowdown will

be collected and drained by gravity to the plant common wastewater lift station. The lift station will transfer the wastewater to the Orange County Sanitation District (OCSD) sanitary sewer system.

Water treatment will be provided onsite prior to use for water injection for oxides of nitrogen (NO<sub>x</sub>) control. Demineralized water will be used for NO<sub>x</sub> injection water. The demineralized (DI) water will be produced by an RO and ion exchange system. The RO reject will be pumped to the wastewater sump via an underground drain line. CTG inter cooler condensation drains and CTG evaporation cooled blowdown will be collected and drained by gravity to the plant common wastewater lift station. The lift station will transfer the wastewater to the OCSD sanitary sewer system.

Area drains will be located near mechanical equipment where it is determined that oil could mix with rainwater or other water sources. The water collected by these drains will be directed to the oil-water separator, which separates out any oil before the effluent is deposited to the wastewater lift station. The lift station will transfer the wastewater to the OCSD sanitary sewer system. The oil-contaminated fluid will be pumped out by a vacuum truck on an as-needed basis and disposed of at a facility specifically qualified to handle such waste.

Hazardous containments will not have drains but will be pumped out by vacuum pump if hazardous materials are present and will be stored and disposed of according to the appropriate LORS.

**Stormwater.** Stormwater will be conveyed overland via sheet flow and collected using a network of catch basins. Stormwater from the catch basins will flow through an underground piping system to an underground-vault multi-chamber treatment device that removes sedimentation, coarse materials, and oil from the water.

The soils underlying the CPP site are suitable to accept percolated stormwater. Therefore, following sediment and oil removal, the stormwater will flow to an onsite underground vault to allow for percolation back into the soil. The percolation vault will include an overflow outlet to allow for stormwater in excess of the 25-year storm event to flow to the existing municipal storm drain system in East Miraloma Avenue. The plant site will consist of paved roads, paved parking areas, and graveled areas. Stormwater treatment is discussed separately in Section 6.5, Water Quality.

The domestic waste system will collect discharge from sinks, toilets, and other sanitary facilities and will discharge to the sanitary sewer system.

**Domestic/Sanitary Wastewater.** A relatively small staff will operate and maintain the plant. Therefore, a relatively small amount of domestic sewage will be generated. Domestic

wastewater will flow by gravity to the plant main wastewater lift station for eventual transfer to the OCSD sanitary sewer system.

**6.14.2.2.3 Operations-related Hazardous Wastes.** Hazardous waste generated will include spent catalyst from the selective catalytic reduction system (SCR) and Oxidation Catalyst systems, used oil from equipment maintenance, and oil-contaminated materials such as spent oil filters, rags, or other cleanup materials. Spent catalyst will be returned to the manufacturer for metals reclamation and/or disposal. Used oil generated will be recycled, and oil- or heavy metals-contaminated materials (e.g., filters) requiring disposal will be disposed of at a Class I waste disposal facility. Other occasional waste streams include alkaline or acid cleaning solutions used during chemical cleaning of the CTG. Table 6.14-3 summarizes the hazardous waste to be generated from operation of the plant.

Hazardous wastes will be collected by a licensed hazardous waste hauler and disposed of at a hazardous waste facility. Hazardous wastes will be transported offsite using a hazardous waste manifest. Copies of manifest reports, waste analysis, exception reports, and destruction certifications will be kept onsite and accessible for inspection for three years. Land disposal restriction notices/certificates will be kept onsite and accessible for inspection for five years.

#### **6.14.2.3 Abandonment/Closure**

Premature closure or unexpected cessation of plant operations will be outlined in the facility's closure plan. The plan will outline steps to secure hazardous and non-hazardous materials and wastes. Such steps will be consistent with best management practices (BMPs), the Hazardous Materials Business Plan (HMBP), and according to applicable LORS. The plant will include monitoring of vessels and receptacles of hazardous material and wastes, safe cessation of processes using hazardous materials or hazardous wastes, and inspection of secondary containment structures.

Planned permanent closure impacts will be incorporated into the facility closure plan and evaluated at the end of the plant's economic operation. The facility closure plan will document non-hazardous and hazardous waste management practices including: the inventory, management, and disposal of hazardous materials and wastes, and permanent disposal of permitted hazardous materials and waste storage units.

#### **6.14.2.4 Cumulative Impacts**

The Class I and Class III landfills and soil and water recycling facilities in the general CPP site area have adequate recycling and disposal capacities for the CPP project. Therefore, cumulative impacts from the CPP project and other projects in the region are not expected to be significant.

### 6.14.3 Mitigation Measures

#### 6.14.3.1 Construction

**WM-1: Hazardous Waste-related Training.** Prior to the initiation of the project construction phase, construction employees will receive hazardous waste-related training, focusing on the recognition of potentially hazardous building materials and subsurface soil contamination and contingency procedures to be followed to protect worker safety and the public.

**WM-2: Waste Management Plan.** A detailed waste management plan for all waste generated during construction will be prepared at least 60 days prior to rough grading to assure proper storage, labeling, packaging, recordkeeping, manifesting, waste minimization principles, and disposal or recycling of all hazardous materials and waste. A waste management plan will also be prepared for operation of the CPP. The waste management plans will include:

- A description of each hazardous waste stream
- Handling, storage, transport, treatment, and disposal procedures for each type of waste
- Preparedness, prevention, contingency, and emergency procedures
- Personnel training

**WM-3: Hazardous Waste Storage.** All hazardous wastes will be stored onsite for less than 90 days (or other accumulation periods as allowed by CCR Title 22, Section 66262.34 for hazardous waste generators) and will be managed in accordance with state and federal hazardous waste generator requirements. Hazardous wastes, as well as hazardous materials that are spilled or otherwise become unsuitable for use, will be stored in an appropriately segregated hazardous waste storage area surrounded by a containment structure to control leaks and spills. The containment area will be constructed according to local codes and requirements. The hazardous waste storage area will be inspected and maintained at least weekly, as required.

**WM-4: Hazardous Waste Disposal.** Hazardous wastes will be collected by a licensed hazardous waste hauler and disposed of at a hazardous waste facility. Hazardous wastes are transported offsite using a hazardous waste manifest. Copies of manifest reports, waste analysis, exception reports, destruction certifications, and the like will be kept onsite and accessible for inspection for three years. Land disposal restriction notices/certificates will be kept onsite and accessible for inspection for five years.

**WM-5: Spill Control and Management.** Spill control and management procedures will be included in the emergency response procedures developed for the proposed CPP prior to

operation. The purpose of the spill control and management procedures is to avoid accidental mixing of incompatible chemicals and spills during transfer of chemicals. The design of spill control and management procedures will include the containment, collection, and treatment systems. The spill response procedures are further discussed in Section 6.12, Hazardous Materials Handling.

**WM-6: Hazardous Materials Training.** Facility employees will receive hazardous materials training as required by the Occupational Safety and Health Administration (OSHA), Hazard Communication Standard. Additionally, employees will be trained in hazardous waste procedures, spill contingencies, and waste minimization procedures in accordance with CCR Title 22. Hazardous waste training includes the following subjects:

- Hazardous waste characteristics
- Use and management of containers
- Waste packing
- Marking and labeling
- Accumulation/storage areas
- Inspections
- Emergency equipment preparedness and prevention
- Contingency plan
- Emergency response procedures
- Spill response and containment
- Hazardous waste manifesting and transportation requirements
- Waste minimization practices

**WM-7: Procedures to Minimize Hazardous Waste Generation.** Procedures to minimize hazardous waste generation will be established. Employees will be trained in procedures to reduce the volume of hazardous wastes generated at the CPP. The procurement of hazardous materials will be controlled to minimize surplus materials onsite and to prevent unused materials from becoming “off-spec.” Non-hazardous materials will be used in lieu of hazardous materials whenever possible. Hazardous wastes will be recycled whenever possible.

Implementation of the above waste management procedures for handling demolition and construction-related debris, and hazardous wastes, where encountered will mitigate demolition and construction-related impacts to a less-than-significant level. No further mitigation is proposed.

**6.14.3.2 Operations**

**6.14.3.2.1 Plant Site.** The Applicant will update the waste management procedures for the site and implement them for operations at the CPP. In addition the applicant will develop and implement procedures and requirements as outlined in the HMBP. These procedures and programs will minimize potential plant operations-related impacts.

**6.14.3.2.2 Offsite Structures.** Periodic inspection and maintenance of the natural gas supply pipeline and water pumping station in accordance with applicable LORS will mitigate potential operations-related impacts associated with the pipeline.

**6.14.3.2.3 Monitoring Program.** Environmental impacts related to waste management issues caused by construction and operation of the CPP are expected to be minimal. Therefore, extensive monitoring programs are not required. Monitoring of generated waste volumes and characteristics during construction and operation of the CPP will be conducted in accordance with monitoring and reporting requirements in the appropriate permits that will be obtained for construction and operation.

**6.14.4 Applicable LORS**

The following summarizes the applicable LORS which govern the handling of non-hazardous and hazardous wastes. The LORS applicable to the handling of waste at the project site are also summarized in Table 6.14-4.

**6.14.4.1 Federal**

The RCRA, 42 USC, Section 6901 to 6992k, provides the basic framework for federal regulation of non-hazardous and hazardous waste. RCRA's Subtitle D establishes state responsibility for regulating non-hazardous waste through a comprehensive "cradle to grave" system of hazardous waste management techniques and requirements. The USEPA is responsible for implementing the law, and the implementing regulations are set forth in 40CFR 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 USEPA's Department of Toxic Substances Control (DTSC) is responsible for administering the program.

The Clean Water Act (CWA) 33 USC, Section 1251 et seq. provides the regulatory framework for managing the discharge of wastewater to surface waters of the U.S. 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

**TABLE 6.14-4  
APPLICABLE LORS**

LORS	Applicability	Conformance (Section)
<b>Federal</b>		
RCRA Subtitle C and D, 42 USC 6901 to 6992k, and Section 6.12.2.1.40 CFR260, et seq.	Regulate non-hazardous and hazardous wastes. Laws implemented by the state.	Section 6.14.4.1
	Implementing regulations for RCRA Subtitle C law. Implemented by USEPA by delegating to the state.	Section 6.14.4.1
Federal Clean Water Act, 33 USC 1251 et seq.	Regulates wastewater discharges to surface waters of the U.S. The NPDES program is administered at the state level.	Section 6.14.4.1
<b>State</b>		
California Integrated Waste Management Act, Public Resources Code 40000 et seq.	Implements RCRA regulations for non-hazardous waste.	Section 6.14.4.2
Porter-Cologne Water Quality Control Act of 1998, Water Code 13000 et seq.	Regulates wastewater discharges to surface and groundwater of California. NPDES program implemented by SWRCB.	Section 6.14.4.2
22 CCR 66262.34	Regulates accumulation periods for hazardous waste generators. Typically hazardous waste cannot be stored onsite for more than 90 days.	Section 6.14.4.2
California Hazardous Waste Control Law, California Health and Safety Code 25100 et seq.	Regulates hazardous waste handling and storage. Implemented by the Anaheim Fire Department Hazardous Materials Section.	
<b>Local</b>		
Anaheim Fire Department Hazardous Materials Section	Regulates enforcement responsibility for the implementation of Title 23, Division 3, Chapters 16 and 18 of the CCR, as it relates to hazardous material storage and petroleum UST cleanup.	Section 6.14.4.3
	Regulates hazardous waste generator permitting, and hazardous waste handling and storage.	Section 6.14.4.3

NPDES = National Pollutant Discharge Elimination System

program, implement publicly owned treatment works' pretreatment programs, oversee federal facilities, and issue general permits.

#### **6.14.4.2 State**

Non-hazardous solid waste is regulated by the California Integrated Waste Management Act, Public Resources Code, and Section 40000 et seq. The law 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, to protect the environment, and to 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 Orange County Board of Supervisors and the California Integrated Waste Management Board designated the Environmental Health Division as the Local Enforcement Agency for Orange County.

Wastewater is regulated under California's Porter-Cologne Water Quality Control Act, which established a statewide system for water pollution control, 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.

Accumulation of hazardous waste onsite is regulated under the CCR, Section 66262.34. Hazardous waste cannot be stored onsite for more than 90 days, so any hazardous waste stored onsite at the CPP would have to be appropriately transferred within that time period.

As stated previously, RCRA allows states to develop their own programs to regulate hazardous waste. California has developed its own program by passage of the California Hazardous Waste Control Law, California Health and Safety Code, 25100 et seq. It should be noted that California's Hazardous Waste Control Law includes non-RCRA hazardous wastes. In addition, the law specifies two hazardous waste criteria (Soluble Threshold Limit Concentration and Total Threshold Limit Concentration) that are not required under RCRA. Primary authority for the statewide administration and enforcement of California's Hazardous Waste Control Law rests with the DTSC. However, the local Certified Unified Program Agency, operated through the COA Fire Department, will provide most of the regulatory functions covering hazardous waste generators.

#### **6.14.4.3 Local**

For hazardous waste, the designated Certified Unified Program Agency (CUPA) for the project site is the Anaheim Fire Department Hazardous Materials Section (AFDHMS). The AFDHMS regulates the generation of hazardous waste through the implementation of state and federal programs. In the event of a release or hazardous waste or materials to the environment from the project, the AFDHMS will be promptly notified. The AFDHMS assumes enforcement responsibility for the implementation of state and federal laws regulating the generation and storage of hazardous waste within the COA.

#### **6.14.5 Agency Contacts**

Agencies with jurisdiction to issue applicable permits or enforce LORS related waste management are shown in Table 6.14-5.

**TABLE 6.14-5  
AGENCY CONTACTS**

Agency	Contact	Title	Telephone
COHCA, Environmental Health Service	Pearl Boelter	Hazardous Waste Program Manager	(714) 433-6010
COHCA, Environmental Health Service	Patti Henshaw	Solid Waste Specialist	(714) 433-6011
Anaheim Fire Department Hazardous Materials Section (HMS)	Joe Kaslowski	Hazardous Material Specialist	(714)765-4031
Anaheim Fire Department	John White	Deputy Fire Marshal	(714)765-4055

### 6.14.6 Applicable Permits

The CPP facility will apply for a USEPA hazardous waste generator identification number from the DTSC and a hazardous waste generator permit from the Anaheim Fire Department Hazardous Materials Section (HMS).

The facility will be required to develop an HMBP for the AFDHMS.

A summary of applicable permits is presented in Table 6.14-6.

**TABLE 6.14-6  
APPLICABLE PERMITS**

Jurisdiction	Potential Permit Requirements	Schedule
Federal	No federal permits are required	
State	No state permits are required	
Local		
Anaheim Fire Department	Hazardous Waste Generator Program Permit	Before the commencement of construction or operations
Hazardous Materials Section (HMS)	Hazardous Materials Business Plan	Within 30 days of starting operation

### 6.14.7 References

AMEC. 2006a. Phase I Site Assessment.

2006b. Phase II Environmental Site Assessment.

Barclays Law Publishers. ND. Barclays Official California Code of Regulations.

Environmental Data Resources. 2006. Database Report.

Office of the Federal Register. 1997. Code of Federal Regulations, Title 40, Parts 260 to 265, Revised July 1.

URS Corporation. 2007. Phase II Supplemental Environmental Site Assessment.