

## 5.14 Waste Management

This section discusses the potential effects on human health and the environment from nonhazardous and hazardous waste generated at the proposed Huntington Beach Energy Project (HBEP). Section 5.14.1 describes the project setting, project site investigations, and the waste and waste streams that would be generated by the project. Section 5.14.2 describes the project's environmental analysis in terms of waste and waste disposal sites. Section 5.14.3 discusses potential cumulative effects. Section 5.14.4 describes mitigation measures. Section 5.14.5 presents laws, ordinances, regulations, and standards (LORS) that apply to the generated waste. Section 5.14.6 discusses the agencies that have jurisdiction over the generated waste and provides agency contact information. Section 5.14.7 describes permits required for generated waste and a schedule for obtaining those permits, and Section 5.14.8 provides the references used to prepare this section.

### 5.14.1 Setting

The HBEP site is located in an industrial area of Huntington Beach at 21730 Newland Street, just north of the intersection of the Pacific Coast Highway (Highway 1) and Newland Street. The project will be located entirely within the existing Huntington Beach Generating Station, an operating power plant. The HBEP site is bounded on the west by a manufactured home/recreational vehicle park, on the north by a tank farm, on the north and east by the Huntington Beach Channel and residential areas, on the southeast by the Huntington Beach Wetland Preserve / Magnolia Marsh wetlands, and to the south and southwest by the Huntington Beach State Park and the Pacific Ocean. The site is located on a gently sloping coastal plain.

HBEP is a 939-megawatt combined-cycle power plant, consisting of two power blocks. Each power block is composed of three combustion turbines with supplemental fired heat recovery steam generators (HRSG), a steam turbine generator, an air-cooled condenser, and ancillary facilities. HBEP will reuse existing onsite potable water, natural gas, stormwater, process wastewater, and sanitary pipelines and electrical transmission facilities. No offsite linear developments are proposed as part of the project.

The project will use potable water, provided by the City of Huntington Beach, for construction and operational process and sanitary uses. During operation, stormwater and process wastewater will be discharged to a retention basin and then ultimately to the Pacific Ocean via an existing outfall. Sanitary wastewater will be conveyed to the Orange County Sanitation District via the existing City of Huntington Beach sewer connection. Two 230-kilovolt (kV) transmission interconnections will connect HBEP Power Blocks 1 and 2 to the existing onsite Southern California Edison (SCE) 230-kV switchyard.

HBEP construction will require the removal of the existing Huntington Beach Generating Station Units 1, 2, and 5. Demolition of Unit 5, scheduled to occur between the fourth quarter of 2014 and the end of 2015, will provide the space for the construction of HBEP Block 1. Construction of Blocks 1 and 2 are each expected to take approximately 42 and 30 months, respectively, with Block 1 construction scheduled to occur from the first quarter of 2015 through the second quarter of 2018, and Block 2 construction scheduled to occur from the first quarter of 2018 through the second quarter of 2020. Removal/demolition of existing Huntington Beach Generating Station Units 1 and 2 is scheduled to occur from the fourth quarter of 2020 through the third quarter of 2022.

Existing Huntington Beach Generating Station Units 3 and 4 were licensed through the California Energy Commission (00-AFC-13C) and demolition of these units is authorized under that license and will proceed irrespective of the HBEP. Therefore, demolition of existing Huntington Beach Generating Station Units 3 and 4 is not part of the HBEP project definition. However, to ensure a comprehensive review of potential project impacts, the demolition of existing Huntington Beach Generating Station Units 3 and 4 is included in the cumulative impact assessment. Removal/demolition of existing Huntington Beach Generating Station Units 3 and 4 will be in advance of the construction of HBEP Block 2.

HBEP construction will require both onsite and offsite laydown and construction parking areas. Approximately 22 acres of construction laydown will be required, with approximately 6 acres at the Huntington Beach Generating Station used for a combination of laydown and construction parking, and 16 acres at the AES Alamos Generating Station (AGS) used for construction laydown (component storage only/no assembly of components at AGS).

During HBEP construction, the large components will be hauled from the construction laydown area at the AGS site to the HBEP site as they are ready for installation.

Construction worker parking for HBEP and the demolition of the existing units at the Huntington Beach Generating Station will be provided by a combination of onsite and offsite parking. A maximum of 330 parking spaces will be required during construction and demolition activities. As shown on Figure 2.3-3 in Section 2.0, Project Description, construction/demolition worker parking will be provided at the following locations:

- Approximately 1.5 acres onsite at the Huntington Beach Generating Station (approximately 130 parking stalls)
- Approximately 3 acres of existing paved/graveled parking located adjacent to HBEP across Newland Street (approximately 300 parking stalls)
- Approximately 2.5 acres of existing paved parking located at the corner of Pacific Coast Highway and Beach Boulevard (approximately 215 parking stalls)
- 225 parking stalls at the City of Huntington Beach shore parking west of the project site.
- Approximately 1.9 acres at the Plains All American Tank Farm located on Magnolia Street (approximately 170 parking stalls)

#### 5.14.1.1 Site Investigations

Investigations that have been undertaken at the project site include a Phase I Environmental Site Assessment (ESA) in 2011–2012, in support of this Application for Certification (AFC), as well as previous Phase II ESAs and sampling events related to past site activities. These investigations have addressed the entire AES property.

##### 5.14.1.1.1 Site History

The AES Huntington Beach Generating Station is a natural gas fueled electrical power plant operated by AES since 1998. The power plant was formerly operated by SCE. Prior to development of the electrical power plant, the project site was vacant undeveloped land including a waterway and wetlands. The northern portion of the site was also identified as the Huntington Beach Airport, although this may have been a rudimentary airfield (EMS, 2012).

##### 5.14.1.1.2 Phase I Environmental Site Assessment

AES Southland Development, LLC (AES) retained Environmental Management Strategies, Inc. on October 24, 2011, to perform a Phase I ESA to support this AFC. The purpose of the Phase I ESA was to identify Recognized Environmental Conditions as defined by the U.S. Environmental Protection Agency's (EPA) Standards and Practices for All Appropriate Inquiries (40 Code of Federal Regulations Part 312). The ESA was conducted in accordance with methods prescribed by the American Society for Testing and Materials document entitled "Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process (Designation: E 1527-93, May 1993)." A copy of the Phase I ESA is provided as Appendix 5.14A.

The Phase I ESA report concluded that a number of Recognized Environmental Conditions, Historical Recognized Environmental Conditions, and De Minimis Conditions are present on the existing Huntington Beach Generating Station site.

The following Recognized Environmental Conditions were identified in the Phase I ESA:

- Plugged oil and gas wells both onsite and adjacent to the east
- Known contamination below existing aboveground storage tanks and presence of fuel pipelines onsite
- Groundwater below the site affected by metals, volatile organic compounds (VOC), and 1,4-dioxane
- Former extensive use of fuel oil
- Former use of concrete degreasing pits
- Former use of polychlorinated biphenyl (PCB)-containing oil and suspected transformer oil
- Large number of recorded underground storage tanks onsite without removal or closure documentation
- Known groundwater contamination on adjacent property to the north

Three closed underground storage tank cases are considered Historical Recognized Environmental Conditions at the existing Huntington Beach Generating Station. Several noted spills immediately addressed are considered De Minimus Conditions. In addition, two potential environmental concerns were noted in the Phase I report; potential presence of asbestos-containing buildings and lead-based paint on the existing Huntington Beach Generating Station, and the presence of VOCs in soil and groundwater underlying the existing site representing a potential vapor-intrusion issue (EMS, 2012).

### 5.14.1.2 Project Waste Generation

Wastewater, nonhazardous waste, and hazardous waste will be generated at the HBEP site during facility demolition, construction, and operation.

#### 5.14.1.2.1 Demolition Phase

The following subsections describe the type and estimated amounts of wastes that will be generated from the demolition of the existing Huntington Beach Generating Station Units 1, 2, and 5.<sup>1</sup> Typical wastes generated during demolition are identified in Tables 5.14-1 and 5.14-2. The overall strategy for demolition is to recycle/salvage as much of the existing generation units as is cost effective. Therefore, waste generation information presented in the Tables 5.14-1 and 5.14-2 represent the maximum expected values.

TABLE 5.14-1  
Wastes Generated during Demolition of Huntington Beach Generating Station Units 1 and 2

Waste	Origin	Composition	Estimated Quantity	Classification	Disposal
Scrap wood, glass, plastic, paper, calcium silicate insulation, and mineral wool insulation	Demolition of piping, structure, tanks and equipment	General Construction waste	16,000 lb/week (dumpster)	Nonhazardous	Recycle and/or dispose of in a Class II or III landfill
Scrap Metals	Demolition of piping and structure	Metal	20,000 tons <sup>a</sup>	Nonhazardous	Recycle and/or dispose of in a Class III landfill
Concrete	Demolition	Concrete	1,500 tons during demo.	Nonhazardous	Recycle and/or dispose of in a Class III landfill
Asphalt	Demolition of roads and berms	Hydrocarbons	60 to 80 tons	Nonhazardous	Recycle and/or dispose of in a Class III landfill
Spent welding /cutting materials	Construction	Solid	100 lb/month	Nonhazardous	Recycle with vendors or dispose of at a Class I landfill if hazardous
Waste oil filters	Construction equipment and vehicles	Solids	200 lb/month	Nonhazardous	Recycle at a permitted treatment, storage, and disposal facility (TSDF)
Used and waste lubricating oil	CT and ST lube oil draining	Hydrocarbons	400 drums	Hazardous	Recycle at a permitted TSDF
Oily rags, oil sorbent excluding lubricating oil flushes	Cleanup of small spills	Hydrocarbons	100 lb/month	Hazardous	Recycle or dispose of at a permitted TSDF
Residual fuel oil from decommissioned storage tanks and piping	Demolition	Hydrocarbons	500 gallons	Hazardous	Recycle at a permitted TSDF

<sup>1</sup> Existing Huntington Beach Generating Station Units 3 and 4 were licensed through the CEC (00-AFC-13C) and demolition of these units is authorized under that license; therefore, demolition of existing Units 3 and 4 are not part of the project definition. However, to ensure a comprehensive review of potential project impacts, the demolition of existing Huntington Beach Generating Station Units 3 and 4 is included in the cumulative impact assessment.

TABLE 5.14-1  
**Wastes Generated during Demolition of Huntington Beach Generating Station Units 1 and 2**

Waste	Origin	Composition	Estimated Quantity	Classification	Disposal
Spent lead acid batteries	Construction equipment, trucks.	Heavy metals	5 batteries per year	Hazardous	Store no more than 10 batteries (up to 1 year) – recycle offsite
Spent alkaline batteries	Equipment	Metals	10 batteries per month	Universal Waste solids	Recycle or dispose of offsite at a universal waste destination facility
Asbestos waste	Demolition of unabated areas in old plant	Asbestos	Minimum of 1,000 tons <sup>b</sup>	Hazardous	Disposal in licensed and permitted landfill
Waste oil	Equipment, vehicles	Hydrocarbons	40 gal/month	Non-Resource Conservation and Recovery Act of 1976 (RCRA) hazardous liquid	Dispose of at a permitted TSDF
Sanitary waste	Portable toilet holding tanks	Sewage	1000 gal/day	Nonhazardous liquid	Remove by contracted sanitary service
Stormwater	Rainfall	Water	2.76 acre-feet <sup>c</sup> (from 10-year storm event)	Nonhazardous liquid	Discharge to stormwater drain
Fluorescent, mercury vapor lamps	Lighting	Metals and PCBs	100 lb/year	Universal waste solids	Recycle or dispose of offsite at an universal waste destination facility

<sup>a</sup>85% is ferrous material and 15% is copper based or alloy materials

<sup>b</sup>Includes water as part of the asbestos containing material weight

<sup>c</sup>Calculated from Orange County Hydrology Manual 10 year storm event

TABLE 5.14-2  
**Wastes Generated during Demolition of Huntington Beach Generating Station Unit 5**

Waste	Origin	Composition	Estimated Quantity	Classification	Disposal
Scrap wood, glass, plastic, paper, calcium silicate insulation, and mineral wool insulation	Demolition of piping, structure, tanks and equipment	General Construction waste	8,000 lb/week (dumpster)	Nonhazardous	Recycle and/or dispose of in a Class II or III landfill
Scrap metals	Demolition of Piping and Structure	Metal	2,000 tons <sup>a</sup>	Nonhazardous	Recycle and/or dispose of in a Class III landfill
Concrete	Demolition	Concrete	850 tons during demo.	Nonhazardous	Recycle and/or dispose of in a Class III landfill
Asphalt	Demolition of roads and berms	Hydrocarbons	20 to 30 tons	Nonhazardous	Recycle and/or dispose of in a Class III landfill
Spent welding /cutting materials	Construction	Solid	100 lb/month	Nonhazardous	Recycle with vendors or dispose of at a Class I landfill if hazardous

TABLE 5.14-2  
**Wastes Generated during Demolition of Huntington Beach Generating Station Unit 5**

Waste	Origin	Composition	Estimated Quantity	Classification	Disposal
Waste oil filters	Construction equipment and vehicles	Solids	200 lb/month	Nonhazardous	Recycle at a permitted TSDF
Used and waste lubricating oil	CT and ST lube oil draining	Hydrocarbons	200 drums	Hazardous	Recycle at a permitted TSDF
Oily rags, oil sorbent excluding lubricating oil flushes	Cleanup of small spills	Hydrocarbons	100 lb/month	Hazardous	Recycle or dispose of at a permitted TSDF
Residual fuel oil from decommissioned storage tanks and piping	Demolition	Hydrocarbons	1,000 gallons	Hazardous	Recycle at a permitted TSDF
Spent lead acid batteries	Construction equipment, trucks.	Heavy metals	5 batteries per year	Hazardous	Store no more than 10 batteries (up to 1 year) – recycle offsite
Spent alkaline batteries	Equipment	Metals	10 batteries per month	Universal waste solids	Recycle or dispose of offsite at a universal waste destination facility
Asbestos waste	Demolition of unabated areas in old plant	Asbestos	Minimum of 200 tons <sup>b</sup>	Hazardous	Disposal in licensed and permitted landfill
Waste oil	Equipment, vehicles	Hydrocarbons	40 gal/month	Non-RCRA hazardous liquid	Dispose at a permitted TSDF
Sanitary waste	Portable toilet holding tanks	Sewage	1000 gal/day	Nonhazardous liquid	Remove by contracted sanitary service
Stormwater	Rainfall	Water	2.76 acre-feet <sup>c</sup> (from 10-year storm event)	Nonhazardous liquid	Discharge to stormwater drain
Fluorescent, mercury vapor lamps	Lighting	Metals and PCBs	100 lb/year	Universal waste solids	Recycle or dispose of offsite at a universal waste destination facility

<sup>a</sup>85% is ferrous material and 15% is copper based or alloy materials

<sup>b</sup>Includes water as part of the asbestos containing material weight

<sup>c</sup>Calculated from Orange County Hydrology Manual 10 year storm event.

### **Nonhazardous Waste**

The following nonhazardous waste is expected to be generated as part of the demolition of existing Huntington Beach Generating Station Units 1, 2, 5:

- Mixed nonhazardous wastes, including debris that has wood, metal, or other nonhazardous material attached to it in a manner that is not economical for separation for recycling purposes
- Plastics from cleaned piping, equipment, and utilities that have been classified as nonhazardous
- Electrical equipment that has been classified as nonhazardous and cannot be salvaged
- Duct work or other ventilation material that is determined to be non-recyclable and that has been classified as nonhazardous
- General waste that has been classified as nonhazardous

Nonhazardous material will be stockpiled near the active work area in a location that is easily accessible. The waste will be stored in a manner that will not allow surface water to move through the waste and into nearby areas. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared for the management of stormwater during construction and demolition activities, as described in Section 5.15.

### ***Hazardous Waste***

The following hazardous waste is expected to be generated as part of the demolition of existing Huntington Beach Generating Station Units 1, 2, 5:

- Asbestos waste, potentially friable, from demolition of unabated areas in old plant
- Electrical equipment that has been classified as hazardous and cannot be salvaged
- Used oils removed from equipment
- Various universal wastes (for example, fluorescent light tubes)
- Lead-acid storage batteries

The waste will be temporarily stored in containers (drums, roll-off boxes, etc.) pending characterization for waste profiling. The SWPPP will address the engineering controls that will be required for management of stormwater during demolition activities. A Construction Waste Management Plan will be prepared to describe procedures that will be used during demolition and construction activities.

### ***Recyclable Material***

It is estimated that 2,350 tons of recyclable concrete will be generated from removal of the existing foundations and that 22,000 tons of metal will also be recyclable from demolition of the existing Huntington Beach Generating Station Units 1, 2, and 5. The metal consists of fencing, tanks, support beams, piping, miscellaneous building materials, equipment, and components. Additionally, plastic, electrical components, and other miscellaneous materials will be recycled when practical. A waste-minimization program will be established to recycle and reuse as much of the demolition materials as economically and practically possible.

#### **5.14.1.2.2 Construction Phase**

During HBEP construction, the primary waste generated will be nonhazardous waste. However, some hazardous waste will also be generated. All of the hazardous wastes will be generated at the project site. The types of waste and their estimated quantities are described in the following discussion. Typical wastes generated during construction are identified in Table 5.14-3.

### ***Nonhazardous Solid Waste***

The following nonhazardous waste streams potentially could be generated during HBEP construction:

- **Paper, wood, glass, and plastics.** Approximately 288 tons of paper, wood, glass, and plastics will be generated from packing materials, waste lumber, insulation, and empty nonhazardous 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.
- **Metal.** Approximately 36 tons of metal including steel (from welding and cutting operations, packing materials, and empty nonhazardous chemical containers) and aluminum waste (from packing materials and electrical wiring) will be generated during construction. Waste will be recycled, where practical, and nonrecyclable waste will be deposited in a Class III landfill.

### ***Wastewater***

Wastewater generated during HBEP construction will include sanitary waste, stormwater runoff, equipment washdown water, 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 nonhazardous. If needed, wastewater would be sampled and if found hazardous would be disposed of appropriately. Methods for disposing of nonhazardous wastewaters are identified in Section 5.14.1.2.2.

TABLE 5.14-3  
Wastes Generated during HBEP Construction

Waste	Origin	Composition	Estimated Quantity	Classification	Disposal
Scrap wood, glass, plastic, paper, calcium silicate insulation, and mineral wool insulation	Construction	Normal refuse	8,000 lb/month (dumpster)	Nonhazardous	Recycle and/or dispose of in a Class II or III landfill
Scrap Metals	Construction	Parts, containers	1,000 lb/month	Nonhazardous	Recycle and/or dispose of in a Class III landfill
Concrete	Construction	Concrete	60 tons <sup>a</sup> during construction	Nonhazardous	Recycle and/or dispose of in a Class III landfill
Empty liquid material containers	Construction	Drums, containers, totes	100 containers <sup>b</sup>	Nonhazardous solids	Containers <5 gallons will be disposed as normal refuse. Containers >5 gallons will be returned to vendors for recycling or reconditioning.
Spent welding materials (for example, welding rods)	Construction	Solid	100 lb/month	Nonhazardous	Recycle with vendors or dispose of at a Class I landfill if hazardous
Waste oil filters	Construction equipment and vehicles	Solids	100 lb/month <sup>c</sup>	Nonhazardous	Recycle at a permitted TSDf
Used and waste lubricating oil	CT and ST lube oil flushes	Hydrocarbons	360 drums <sup>d</sup> (life of project construction)	Hazardous	Recycle at a permitted TSDf
Oily rags, oil sorbent excluding lubricating oil flushes	Cleanup of small spills	Hydrocarbons	100 lb/month	Hazardous	Recycle or dispose at a permitted TSDf
Solvents, paint, adhesives	Maintenance	Varies	180 lb/month	Hazardous	Recycle at a permitted TSDf
Spent lead acid batteries	Construction equipment, trucks.	Heavy metals	5 batteries per year	Hazardous	Store no more than 10 batteries (up to 1 year) – recycle offsite
Spent alkaline batteries	Equipment	Metals	10 batteries per month	Universal waste solids	Recycle or dispose of offsite at a universal waste destination facility
Steam turbine cleaning waste	Pre-boiler piping	Corrosive cleaning chemicals	200 gallons before plant startup	Hazardous or nonhazardous liquid	Dispose of at a permitted TSDf
Waste oil	Equipment, vehicles	Hydrocarbons	40 gal/month	Non-RCRA hazardous liquid	Dispose of at a permitted TSDf
Sanitary waste	Portable toilet holding tanks	Sewage	1,000 gal/day	Nonhazardous liquid	Remove by contracted sanitary service
Stormwater	Rainfall	Water	4.46 acre-feet <sup>e</sup> (from 10-year storm event)	Nonhazardous liquid	Discharge to stormwater drain

TABLE 5.14-3  
Wastes Generated during HBEP Construction

Waste	Origin	Composition	Estimated Quantity	Classification	Disposal
Fluorescent, mercury vapor lamps	Lighting	Metals and PCBs	100 lb/year	Universal waste solids	Recycle or dispose of offsite at a universal waste destination facility
Passivating and chemical cleaning fluid waste	Pipe cleaning and flushing	Varies	600,000 gallons <sup>f</sup> (life of project construction)	Hazardous or nonhazardous liquid	Sample and characterize – if clean, dispose of in sanitary sewer; otherwise, manage appropriately offsite
Hydrotest water	Testing equipment and piping integrity	Water	300,000 gallons (life of project construction)	Hazardous or nonhazardous liquid	Sample and characterize – if clean, dispose of in storm drain; otherwise, manage appropriately offsite

<sup>a</sup>30 cubic yards

<sup>b</sup>Containers include <5-gallon containers and 55-gallon drums or totes

<sup>c</sup>Assumes one oil change

<sup>d</sup>Assumes 2500 gallons for each generator times 8 units

<sup>e</sup>Calculated from 10 years of precipitation data from John Wayne Airport

<sup>f</sup>Estimated quantities for clean, flush and rinse of six HRSGs

### **Hazardous Waste**

Most of the hazardous waste generated during HBEP construction will consist of water from excavation dewatering (if it contains contaminants), flushing and cleaning fluids, passivating fluid (to prepare pipes for use), and solvents. Other hazardous waste, such as welding materials and dried paint, also may be generated during construction.

When pipes are cleaned and flushed, waste will be generated. The volume of flushing and cleaning 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. Wastewaters generated during construction could also be considered hazardous, if demonstrated so by sampling. Methods for recycling and disposal of hazardous wastes during construction are described in Section 5.14.4.1.2.

#### **5.14.1.2.3 Operation Phase**

During HBEP facility operations, the primary waste generated will be nonhazardous waste. However, varying quantities of hazardous waste also will be generated periodically. The types of wastes and their estimated quantities are discussed below.

### **Nonhazardous Waste**

The HBEP will produce facility wastes typical of power generation facility operations and maintenance activities. These will include rags, turbine air filters, broken and rusted metal and machine parts, defective or broken electrical materials, empty containers, the typical refuse generated by workers and small office operations, and other miscellaneous wastes. The quantity of all nonhazardous waste generated is estimated to be about 26 cubic yards per year (approximately 39 tons per year). Large metal parts will be recycled.

### **Nonhazardous Wastewater**

The HBEP water balance schematic diagrams, provided in Section 2.0, Figure 2.1-6a and 2.1-6b, illustrate the expected waste streams and Table 2.1-2 lists waste stream flow rates. The wastewater collection system will collect sanitary wastewater from sinks, toilets, and other sanitary facilities.

General HBEP facility drainage will consist of area washdown, sample drains, equipment leakage, and drainage from facility equipment areas. Water from these areas will be collected in a system of floor drains, hub drains, sumps, and piping, and will be routed to the facility's concrete-lined wastewater sump. Water from this sump will

be sampled and analyzed at an approved lab. If contamination is present, the water will be trucked offsite for disposal at an approved wastewater disposal facility. If sampling results show no contamination, the water will be discharged to the stormwater drainage system.

### **Hazardous Waste**

Hazardous waste generated during HBEP operations will include waste lubricating oil, used oil filters from turbine equipment, spent catalysts, and chemical cleaning wastes. The catalyst units will contain heavy metals that are considered hazardous. Chemical cleaning wastes, which consist of alkaline and acidic cleaning solutions, will be generated from periodic pipe cleaning. These wastes may contain high concentrations of heavy metals and will be collected for offsite disposal at a permitted facility.

The chemical feed area drains will collect spillage, tank overflows, effluent from maintenance operations, and liquid from area washdowns. Water collected will be sampled and, if it is not contaminated, released to the stormwater drainage system. The quantity of this effluent is expected to be minimal.

Wastes that potentially will be generated during HBEP operations are summarized in Table 5.14-4.

TABLE 5.14-4  
Hazardous Wastes Generated During Operation

Waste	Origin	Composition	Estimated Quantity	Classification	Disposal
Lubricating oil/oil sorbents	Small leaks and spills from the gas turbine lubricating oil system	Hydrocarbons	700 lb/year	Hazardous	Cleaned up using sorbent and rags – disposed of by certified oil recycler
Lubricating oil filters	Gas turbine lubricating oil system	Paper, metal, and hydrocarbons	1,000 lb/year	Hazardous	Recycled by certified oil recycler
Lubricating oil	Maintenance of turbine, equipment	Hydrocarbons	500 lb/year	Hazardous	Recycled by certified oil recycler
Solvents, paint, adhesives	Maintenance	Varies	200 lb/month	Hazardous	Recycle at a permitted TSDF
Laboratory analysis waste	Water treatment	Waste reagents/ laboratory chemicals	50 gals/year	Hazardous	Recycled by certified recycler
selective catalytic reduction (SCR) catalyst units	SCR system (Warranty is 3 years—use tends to be 3 to 5 years)	Metal and heavy metals, including vanadium	60 to 70 tons every 3 to 5 years	Hazardous	Recycled by SCR manufacturer or disposed of in Class I landfill
Carbon monoxide catalyst units	HRSO (Use tends to be 3 to 5 years)	Metal and heavy metals, including vanadium	6 to 7 tons every 3 to 5 years	Hazardous	Recycled by manufacturer
Spent lead acid batteries	Electrical room, equipment	Metals	5 batteries/year	Hazardous	Store no more than 10 batteries (up to 1 year) – recycle offsite
Spent alkaline batteries	Equipment	Metals	50 lb/year	Universal waste solids	Recycle or dispose of offsite at a universal waste destination facility
Fluorescent tubes	Lighting of maintenance areas	Metals	50 lb/year	Universal waste solids	Recycle or dispose of offsite at a universal waste destination facility

TABLE 5.14-4  
Hazardous Wastes Generated During Operation

Waste	Origin	Composition	Estimated Quantity	Classification	Disposal
Electronic Components	Distributed Control System (DCS), plant computers, instruments	Metals	100 lb/ year	Universal Waste Solids	Recycle with an approved facility
Oily rags	Maintenance, wipe down of equipment, etc.	Hydrocarbons, cloth	300 lb/year (~800 rags per year)	Hazardous	Recycled by certified oil recycler
Chemical feed area drainage	Spillage, tank overflow, area washdown water	Water with water treatment chemicals	Minimal	May be hazardous if corrosive	Discharged to sewer if nonhazardous; shipped offsite for disposal if hazardous

## 5.14.2 Environmental Analysis

### 5.14.2.1 Significance Criteria

The project, as designed, will not have a significant effect on the environment in terms of waste management (California Environmental Quality Act Guidelines Section 15002(g), Appendix G), as the project will not:

- Be located on a site that is included on a list of hazardous materials sites (Cortese List) compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- Have solid waste disposal needs beyond the capacity of appropriate landfills to accommodate them.

The risks or hazards posed by the transportation of hazardous materials, including hazardous wastes, are described and analyzed in Section 5.5, Hazardous Materials Handling.

### 5.14.2.2 Cortese List

An examination of the Department of Toxic Substance Control (DTSC) Hazardous Waste and Substances Site List (Cortese List) shows that 22 of the 383 sites currently on the list for Orange County compiled pursuant to Government Code Section 65962.5 are located within the city limits of Huntington Beach (DTSC, 2012a).

Of the 22 sites, the closest one is within a quarter-mile of the HBEP property. This facility is the closed Ascon Landfill, which is located to the northeast of the HBEP site. The Ascon Landfill site is a vacant 38-acre parcel that formerly operated as a landfill, mainly for drilling operations wastes, from 1938 through 1984. Corrective action has been underway for a number of potential contaminants of concern since 1984 (DTSC, 2012a).

In addition, the HBEP site is located on a Cortese-listed site. The entire HBEP site is listed in a corrective action status with active cleanup ongoing (DTSC, 2012a). Numerous site investigations have been completed and corrective action and site cleanup are under way on the affected parcels. The site investigations related to the AES HBEP property are discussed in Section 5.14.1.2.1 and site history is outlined in Section 5.14.1.2.2.

The existing Huntington Beach Generating Station site has undergone various site investigations and/or corrective action and cleanups; therefore, it is highly unlikely that any impacts will result from Cortese-listed properties, nor will the HBEP present a significant hazard to the public or the environment.

### 5.14.2.3 Solid Waste Disposal

Nonhazardous waste (often referred to as municipal waste or garbage) will be recycled or deposited in a Class III landfill. Hazardous wastes will be delivered to a permitted offsite TSD facility for treatment or recycling, or will be deposited in a permitted Class I landfill. The following sections describe the waste disposal sites feasible for

disposal of HBEP wastes. As explained and demonstrated, the project is not expected to have any significant environmental impacts related to solid waste disposal.

#### 5.14.2.3.1 Nonhazardous Waste

Approximately 390 tons of nonhazardous waste will be generated during HBEP construction and approximately 25,544 tons of nonhazardous waste will be generated during demolition of existing Huntington Beach Generating Station Units 1, 2, and 5. In addition, nonhazardous waste will continue to be generated during HBEP operation. Nonhazardous wastes will be recycled to the extent possible, and what cannot be recycled will be disposed of at a permitted landfill as discussed below.

It is anticipated that all excavated soil generated during construction of HBEP or during the demolition of existing Huntington Beach Generating Station Units 1, 2 and 5 will be used onsite for grading and leveling purposes. In the event that some excavated soil is not reused onsite, it would be classified for disposal on the basis of sampling completed once the soil is excavated and stockpiled. Soil determined to be nonhazardous could be suitable for reuse at a construction site or disposal at a regional disposal facility.

The County of Orange owns and operates two landfills in the vicinity of the HBEP site; Frank R. Bowerman Sanitary Landfill, Orlinda Alpha Sanitary Landfill, (County of Orange, 2012). The Frank R. Bowerman Sanitary Landfill and Orlinda Alpha Sanitary Landfill are the nearest landfills to HBEP that may be used to handle the project's solid waste and recyclables (CalRecycle, 2012a). Both landfills have adequate capacity to handle and dispose of solid waste generated by the HBEP facility, as shown in Table 5.14-5.

TABLE 5.14-5  
Solid Waste Disposal Facilities in the Vicinity of HBEP

Landfill/ Transfer Station	Location	Class	Permitted Capacity <sup>a</sup> (cubic yards)	Remaining Capacity <sup>a</sup> (cubic yards)	Permitted Throughput <sup>a</sup> (tons per day)	Estimated Closure Date <sup>a</sup>	Violation of Minimum State Standards Noted <sup>a</sup>
Frank R. Bowerman Sanitary Landfill	Irvine, CA	III	266,000,000	198,000,000	8,500	12/31/2022	Yes <sup>b</sup>
Olinda Alpha Sanitary Landfill	Brea, CA	III	148,000,000	47,000,000	8,000	12/31/2021	Yes <sup>c</sup>
Rainbow Environmental Services, Inc. Transfer Station	Huntington Beach, CA	NA	NA	NA	2,800	Not Listed	No

<sup>a</sup>Based on CalRecycle Solid Waste Information System Database with a violation search from 2009-2012 (CalRecycle, 2012a)

<sup>b</sup>One violation in 2009 for Gas Monitoring and Control. No violations in 2010 and 2011.

<sup>c</sup>Violations in 2009, 2010, and 2011 for Gas Monitoring and Control

NA = not applicable

The Frank R. Bowerman Sanitary Landfill is located at 11002 Bee Canyon Access Road, Irvine, California 92618. As an active solid waste landfill, this facility accepts mixed municipal, construction, and demolition debris, and industrial waste. The disposal area currently covers 341 acres, and the entire facility comprises 725 acres (CalRecycle, 2012a).

The Olinda Alpha Sanitary Landfill is located at 1942 N. Valencia Avenue, Brea, California 92823. As an active solid waste landfill, this facility accepts mixed municipal, construction and demolition debris, industrial waste, agriculture, tires, and wood waste. The disposal area currently covers 420 acres, and the entire facility comprises 565 acres (CalRecycle, 2012a).

Rainbow Environmental Services (Rainbow) provides waste hauling in Huntington Beach, including waste hauling for the existing Huntington Beach Generating Station and will also provide waste hauling for HBEP. Rainbow operates a transfer station in Huntington Beach located at 17121 Nichols Street, Huntington Beach, CA 92647. It is permitted as a large-volume transfer and processing facility, comprising 17 acres and accepting mixed municipal

waste, industrial waste, construction and demolition waste, agriculture, inert, metals, manure, and green materials. The waste is processed and then transported to one of the area landfills for disposal (CalRecycle, 2012a).

According to CalRecycle and the Orange County Waste and Recycling Department, the combined capacity of the Frank R. Bowerman and Olinda Alpha Sanitary Landfills is more than 414 million cubic yards of refuse and the estimated combined remaining capacity is approximately 245 million cubic yards of refuse. According to CalRecycle, there was one violation related to gas monitoring and control in 2009 at Frank R. Bowerman Sanitary Landfill and 10 instances of violations related to gas monitoring and control in 2009, 2010, and 2011 at Olinda Alpha Sanitary Landfill (CalRecycle, 2012a). Adequate landfill capacity exists; therefore, disposal of nonhazardous waste will not be a constraint on HBEP development or operation. Impacts related to landfill capacity will be less than significant.

#### **5.14.2.3.2 Hazardous Waste**

Hazardous waste generated at the HBEP facility will be stored at the facility for less than 90 days. The waste will then be transported to a TSD facility by a permitted hazardous waste transporter. These facilities vary considerably in what they can do with the hazardous waste they receive. Some can only store waste, some can treat the waste to recover usable products, and others can dispose of the waste by incineration, deep-well injection, or landfilling. (Incineration and deep-well injection of these materials are not permitted in California.)

According to DTSC, there are 56 facilities in California that can accept hazardous waste for treatment and recycling (DTSC, 2012b). For ultimate disposal, California has three hazardous waste (Class I) landfills. The closest commercial hazardous waste disposal facility is Waste Management's Kettleman Hills Landfill.

##### ***Waste Management Kettleman Hills Landfill***

This facility accepts Class I and II waste. The B-18 landfill is permitted for and will accept all hazardous wastes except radioactive, medical, and unexploded ordnance. Currently, B-18 landfill phase 1 and 2 are in operation with a permitted capacity of 10.7 million cubic yards. B-18 phase 1 and 2 are near capacity, but B-18 phase 3 will be opening with a permitted capacity of approximately 5 million cubic yards and a life expectancy of 8 years (Henry, 2012). After B-18 closes, a new B-20 landfill will be opened on currently undeveloped land on the site. B-20 has a permitted capacity of 15 million cubic yards and a life expectancy of 24 years (Henry, 2012). As a whole, Kettleman Hills Landfill will be accepting waste for the next 32 years, until 2044. However, they are continuously searching for more expansion opportunities (Henry, 2012).

##### ***Clean Harbors Buttonwillow Landfill***

This landfill is permitted at 13.1 million cubic yards and can accept 4,050 tons per day (Linton, 2012). The landfill is permitted to accept waste until 2040 (CalRecycle, 2012a). Buttonwillow has been permitted to manage a wide range of hazardous wastes, including RCRA hazardous wastes, California hazardous waste, and non-hazardous waste for stabilization treatment, solidification, and landfill. It can handle waste in bulk (solids and liquids) and in containers. Typical waste streams include non-hazardous soil, California hazardous soil, hazardous soil for direct landfill, hazardous waste for treatment of metals, plating waste, hazardous and non-hazardous liquid, and debris for microencapsulation (Clean Harbors, 2012).

##### ***Clean Harbors Westmoreland Landfill***

This facility is not currently open and accepting waste because the Buttonwillow facility can accommodate the current hazardous waste generation rate. The facility is, however, available in reserve and could be reopened if necessary. The landfill's conditional use permit prohibits the acceptance of some types of waste, including radioactive (except geothermal) waste, flammables, biological hazard waste (medical), PCBs, dioxins, air- and water-reactive wastes, and strong oxidizers.

##### ***Additional Facilities***

In addition to hazardous waste landfills, there are numerous offsite commercial hazardous waste treatment and recycling facilities in California. Facilities currently used by the Huntington Beach Generating Station include

Demmenno/Kerdoone in Compton, Pacific Resource Recovery in Los Angeles, Veolia ES Technical Solutions in Azusa, Lighting Resources Inc in Ontario, and Siemens Water Technologies in Vernon. All hazardous waste not treated or recycled by these facilities would then be transported to one of the permitted hazardous waste landfills discussed above.

#### 5.14.2.4 Waste Disposal Summary

The HBEP facility will generate nonhazardous waste that will add to the total waste generated in Orange County and in California. However, there is adequate recycling and landfill capacity in California to recycle and dispose of the waste generated by HBEP. It is estimated that HBEP will generate approximately 398 tons of solid waste during construction (including approximately 8 tons of hazardous waste), 26,749 tons of solid waste during demolition of Units 1, 2, and 5 (including approximately 1,205 tons of hazardous waste), and about 39 tons a year from operations. Considering that 3,522,125 tons of solid waste was landfilled in Orange County in the year 2010, HBEP's contribution will likely represent less than one percent of the county's total waste generation in a single year (CalRecycle, 2012b). Therefore, the impact of the project on solid waste recycling and disposal capacity will not be significant.

Hazardous waste generated will consist of asbestos (from the demolition of Huntington Beach Generating Station Units 1, 2 and 5), and waste oil, filters, SCR, and oxidation catalysts, and fluids used to clean piping from the HBEP. HBEP's waste oil, catalysts, and the deionization trailer unit will be recycled. Hazardous waste treatment and disposal capacity in California is more than adequate. Therefore, the effect of HBEP on hazardous waste recycling, treatment, and disposal capability will not be significant.

#### 5.14.3 Cumulative Effects

A cumulative impact refers to a proposed project's incremental effect together with other closely related past, present, and reasonably foreseeable future projects whose impacts may compound or increase the incremental effect of the proposed project (Public Resources Code § 21083; California Code of Regulations, Title 14, §§15064(h), 15065(c), 15130, and 15355).

The quantities of nonhazardous and hazardous wastes that would be generated during HBEP construction and operation would be relatively low: an estimated 398 tons of solid waste during construction, 26,749 tons of solid waste during demolition of Units 1, 2, and 5, and approximately 39 tons per year during HBEP operations. Recycling efforts would be prioritized wherever practical, and capacity is available in a variety of treatment and disposal facilities. Considering that 3,522,125 tons of solid waste was landfilled in Orange County in the year 2010, HBEP's contribution will likely represent less than one percent of the County's total waste generation in a single year (CalRecycle, 2012b). As set forth in Table 5.14-5, sufficient landfill capacity is available in the project area. Therefore, the added waste quantities generated by HBEP would not result in significant cumulative waste management impacts.

##### 5.14.3.1 Cumulative Effects of Waste Generation during Demolition of Units 3 and 4<sup>2</sup>

As discussed in Section 5.14.1.3.1 and 5.14.1.3.2, nonhazardous and hazardous waste will be generated from the construction and demolition of existing Huntington Beach Generating Station Units 1, 2, and 5. Demolition of existing Huntington Beach Generating Station Units 3 and 4, while not part of HBEP, will result in equivalent amounts of nonhazardous and hazardous wastes, including paper, wood, glass and plastics, scrap metals, concrete, waste oil, sanitary waste, used and waste lubricating oil, waste oil, oily rags, spent batteries, fluorescent lamps, and asbestos waste. Recycling efforts would be prioritized during demolition of Units 3 and 4 wherever practical. Considering that 3,522,125 tons of solid waste was landfilled in Orange County in the year 2010, HBEP's contribution will likely represent less than one percent of the county's total waste generation in a single year (CalRecycle, 2012b). Even with cumulative waste derived by construction of the HBEP and demolition of existing Huntington Beach Generating Stations Units 1, 2, and 5, and the existing Units 3, and 4, as noted in Table 5.14-5,

<sup>2</sup> Existing Huntington Beach Generating Station Units 3 and 4 were licensed through the CEC (00-AFC-13C) and demolition of these units is authorized under that license; therefore, demolition of existing Units 3 and 4 are not part of the project definition. However, to ensure a comprehensive review of potential project impacts, the demolition of existing Huntington Beach Generating Station Units 3 and 4 is included in the cumulative impact assessment.

sufficient landfill capacity is available in the project area. Therefore, the added waste quantities generated by the demolition of Units 3 and 4 would result in less-than-significant cumulative waste management impacts.

### **5.14.4 Mitigation and Waste Management Methods**

The handling and management of waste generated by HBEP will follow the hierarchical approach of source reduction, recycling, treatment, and disposal. The first priority will be to reduce the quantity of waste generated through pollution prevention methods (for example, high-efficiency cleaning methods). The next level of waste management will involve reusing or recycling wastes (for example, used oil recycling). For wastes that cannot be recycled, treatment will be used, if possible, to make the waste nonhazardous (for example, neutralization). Finally, offsite disposal will be used for residual wastes that cannot be reused, recycled, or treated.

The following sections present methods for managing nonhazardous and hazardous waste generated by HBEP.

#### **5.14.4.1 Construction and Demolition Phases**

Handling requirements and mitigation measures for the handling of wastes during HBEP construction and existing Huntington Beach Generating Station demolition are described in the following sections.

##### **5.14.4.1.1 Nonhazardous Wastes**

Nonhazardous waste generated during construction and demolition will be collected in onsite dumpsters and picked up periodically by Rainbow Hauling or another permitted waste hauler. The waste then will be taken to a permitted local landfill. Recyclable materials can be segregated and transported by construction contractors or other private haulers to an area recycling facility. Rainbow Hauling or another permitted waste hauler can provide drop boxes or debris boxes for large quantities of recyclables.

Wastewater generated during construction and demolition will include sanitary waste and could include excavation dewatering water, equipment washwater, and stormwater runoff. Sanitary waste will be collected in portable, self-contained toilets. Excavation dewatering water will be contained in portable tanks and sampled prior to offsite disposal. Equipment washwater will be contained at designated wash areas and will be disposed of offsite. Stormwater runoff will be managed in accordance with a stormwater management permit, which will be obtained before construction starts. Nonhazardous wastewater generation will be minimized by water conservation and reuse measures.

##### **5.14.4.1.2 Hazardous Wastes**

Most hazardous waste generated during demolition and construction will consist of excavation dewatering water, flushing and cleaning fluids, passivating fluids, and solvents. The exception will be a significant amount of asbestos waste from demolition of unabated areas in the old plant during the demolition phase. The total tonnage of asbestos waste generated by demolition of existing Huntington Beach Generating Station Units 1, 2, and 5 is expected to be approximately 1,200 tons. Some waste in the form of welding materials and dried paint also may be generated. Nonhazardous materials will be used whenever possible during construction of HBEP to minimize the quantity of hazardous waste generated. The demolition and construction contractor will be the generator of hazardous demolition and construction waste and will be responsible for proper handling in compliance with applicable federal, state, and local laws and regulations, 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 HBEP onsite construction laydown area. The waste will be delivered to an authorized hazardous waste management facility before expiration of the 90-day storage limit.

#### **5.14.4.2 Operation Phase**

Handling requirements and mitigation measures for the handling of wastes during HBEP operations are described in the following sections.

#### 5.14.4.2.1 Nonhazardous Wastes

Wastewater from facility sinks, toilets, and showers will be disposed of through a connection to the existing City of Huntington Beach sanitary sewer.

Nonhazardous waste will be collected and deposited in a local landfill. Whenever practical, recycling will be implemented throughout the facility to minimize the quantity of nonhazardous waste that must be disposed of in a landfill.

#### 5.14.4.2.2 Hazardous Wastes

To avoid the potential effects on human health and the environment from handling and disposing of hazardous wastes, procedures will be developed to ensure proper labeling, storage, packaging, recordkeeping, and disposal of all hazardous wastes. The following general procedures will be employed:

- HBEP will be classified as a hazardous waste generator and will obtain a site-specific EPA identification number that will be used to manifest hazardous waste from the HBEP facility. Hazardous waste from the HBEP facility will be stored onsite for less than 90 days before offsite disposal, treatment, or recycling.
- Hazardous wastes will be accumulated onsite according to the California Code of Regulations Title 22 requirements for satellite accumulation.
- Hazardous wastes will be stored at HBEP in appropriately segregated storage areas surrounded by berms to contain leaks and spills. The bermed areas will be sized to hold the full contents of the largest single container and, if not roofed, will be sized for an additional 20 percent to allow for rainfall. These areas will be inspected daily.
- Hazardous wastes will be collected by a licensed hazardous waste hauler using a hazardous waste manifest. Wastes will be shipped only to authorized hazardous waste management facilities. If necessary, biannual hazardous waste generator reports will be prepared and submitted to the DTSC. Copies of manifests, reports, waste analyses, and other documents will be kept onsite and will remain accessible for inspection for at least 3 years.
- Employees will be trained in hazardous waste procedures, spill contingencies, and waste minimization.
- Procedures will be developed to reduce the quantity of hazardous waste generated. Nonhazardous materials will be used instead of hazardous materials whenever practical, and wastes will be recycled whenever practical.

Specifically, hazardous waste handling will include the following practices. Handling of hazardous wastes in this way will minimize the quantity of waste deposited to landfills:

- Waste lubricating oil will be recovered and recycled by a waste oil recycling contractor, such as Evergreen Oil, Inc.
- Spent oil filters and oily rags will be recycled.
- Spent SCR and oxidation catalysts will be recycled by the supplier, if possible, or disposed of in a Class I landfill.

#### 5.14.4.3 Facility Closure

When HBEP is closed, both nonhazardous and hazardous wastes must be handled properly. Closure can be temporary or permanent. Temporary closure would be for a period greater than the time required for normal maintenance, including overhaul or replacement of the combustion turbines. Causes for temporary closure could be a disruption in the supply of natural gas, flooding of the site, 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 result from 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.

### 5.14.4.3.1 Temporary Closure

For a temporary closure of one or both of HBEP Blocks 1 and 2, where there is no release of hazardous materials, facility security will be deployed on a 24-hour basis, and the CEC will be notified. Depending on the length of shutdown necessary, a contingency plan for the temporary cessation of operations will be implemented. The plan will be developed to 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 of according to applicable LORS, as discussed in Section 5.14.5.

If 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 a risk management plan. Procedures include methods to control releases, notification of applicable authorities and the public, 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.

### 5.14.4.3.2 Permanent Closure

The planned life of the HBEP facility is 30 years, although operation could be longer. When the facility is permanently closed, the handling of nonhazardous and hazardous waste and hazardous materials will be part of a general closure plan that will attempt to maximize the recycling of facility components. Unused chemicals will be sold back to the suppliers or other purchasers or users. All equipment containing chemicals will be drained and shut down to protect public health and safety and the environment. All nonhazardous wastes will be collected and disposed of in appropriate landfills or waste-collection facilities. All hazardous wastes will be disposed of according to applicable LORS. The site will be secured 24 hours per day during decommissioning activities.

### 5.14.4.3.3 Monitoring

Because the environmental impacts caused by construction and operation of the facility are expected to be minimal, extensive monitoring programs will not be required. Generated waste, both nonhazardous and hazardous, will be monitored during project construction and operation in accordance with the monitoring and reporting requirements mandated by the regulatory permits to be obtained for construction and operation.

## 5.14.5 Laws, Ordinances, Regulations, and Standards

Nonhazardous and hazardous waste handling at HBEP 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 nonhazardous and hazardous waste. Table 5.14-6 presents a summary of the LORS applicable to waste handling at the HBEP facility.

TABLE 5.14-6  
Laws, Ordinances, Regulations, and Standards for Waste Management

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
<b>Federal</b>			
RCRA Subtitle D	Regulates design and operation of non-hazardous solid waste landfills. HBEP solid waste will be collected and disposed of by a collection company in conformance with Subtitle D.	California Integrated Waste Management Board (CIWMB)	Sections 5.14.5.1, 5.14.4.1, 5.14.4.2.1, 5.14.1.2.2
RCRA Subtitle C	Controls storage, treatment, and disposal of hazardous waste. Hazardous waste will be handled by contractors in conformance with Subtitle C.	DTSC	Sections 5.14.5.1, 5.14.4.1.2, 5.14.4.2.2, 5.14.1.2.2

TABLE 5.14-6  
Laws, Ordinances, Regulations, and Standards for Waste Management

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
Clean Water Act (CWA)	Controls discharge of wastewater to the surface waters of the United States.	Regional Water Quality Control Board	Sections 5.14.5.1, 5.14.4.1.1, 5.14.4.2.1
<b>State</b>			
California Integrated Waste Management Act (CIWMA)	Controls solid waste collectors, recyclers, and depositors. HBEP solid waste will be collected and disposed of by a collection company in conformance with the CIWMA.	CIWMB and the Orange County Integrated Waste Management Department	Sections 5.14.5.2, 5.14.4.1, 5.14.4.2.1, 5.14.1.2.2
Hazardous Waste Control Law (HWCL)	Controls storage, treatment, and disposal of hazardous waste. Hazardous waste will be handled by contractors in conformance with the HWCL.	DTSC	Sections 5.14.5.2, 5.14.4.1.2, 5.14.4.2.2, 5.14.1.2.2
Porter-Cologne Water Quality Control Act	Controls discharge of wastewater to surface waters and groundwaters of California.	Regional Water Quality Control Board	Sections 5.14.5.2, 5.14.4.1.1, 5.14.4.2.1
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, as needed, from the City of Huntington Beach Fire Department.	City of Huntington Beach Fire Department	Sections 5.14.7, 5.14.5.4, 5.14.4.2.2
<b>Local</b>			
Orange County Integrated Waste Management Plan	Provides guidance for local management of solid waste and household hazardous waste (incorporates the county's Source Reduction and Recycling Elements, which detail means of reducing commercial and industrial sources of solid waste). Waste will be recycled in a manner consistent with applicable LORS.	Orange County Integrated Waste Management Department	Sections 5.14.6, 5.14.7, 5.14.5.3, 5.14.4.2.2
Orange County Health Care Agency-Environmental Health Division (OC HCA-EHD), Hazardous Waste Inspection Program	<p>OC HCA-EHD shares the Certified Unified Program Agency (CUPA) duties with a number of municipalities in Orange County. In most Orange County cities, the OC HCA-EHD administers the Hazardous Waste, Underground Storage Tank, Aboveground Petroleum Storage Tank, and CalARP programs while the Fire Agencies administer the hazardous materials disclosure and business emergency plan requirements. The Huntington Beach Fire Department is the city entity that administers these two requirements.</p> <p>HBEP will comply with the Orange County and Huntington Beach Fire Department Hazardous Waste Inspection Program requirements concerning storage and handling of hazardous materials and wastes and will also cooperate with the agencies on resolution of any environmental issues at the site.</p>	Orange County Health Care Agency-Environmental Health Division	Sections 5.14.6, 5.14.7, 5.14.5.3, 5.14.4.2.2

TABLE 5.14-6  
Laws, Ordinances, Regulations, and Standards for Waste Management

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
Huntington Beach Fire Department	<p>OC HCA-EHD shares the CUPA duties with a number of municipalities in Orange County. In most Orange County cities, the OC HCA-EHD administers the Hazardous Waste, Underground Storage Tank, Aboveground Petroleum Storage Tank, and CalARP programs while the Fire Agencies administer the hazardous materials disclosure and business emergency plan requirements. The Huntington Beach Fire Department is the city entity that administers these two requirements.</p> <p>HBEP will comply with the Orange County and Huntington Beach Fire Department Hazardous Waste Inspection Program requirements concerning storage and handling of hazardous materials and wastes and will also cooperate with the agencies on resolution of any environmental issues at the site.</p>	Huntington Beach Fire Department	Sections 5.14.6, 5.14.7, 5.14.5.3, 5.14.4.2.2

### 5.14.5.1 Federal LORS

EPA regulates wastewater under the CWA. The federal statute that controls nonhazardous and hazardous waste is the RCRA 42 USC 6901, et seq. RCRA's implementing regulations are found in 40 Code of Federal Regulations 260, et seq. Subtitle D assigns responsibility for the regulation of nonhazardous waste to the states; federal involvement is limited to establishing minimum criteria that prescribe the best practicable controls and monitoring requirements for solid waste disposal facilities. Subtitle C controls the generation, transportation, treatment, storage, and disposal of hazardous waste through a comprehensive "cradle-to-grave" system of hazardous waste management techniques and requirements. It applies to all states and to all hazardous waste generators (above certain levels of waste produced). HBEP will conform to this law in its generation, storage, transport, and disposal of any hazardous waste generated at the facility. EPA has delegated its authority for implementing the law to the State of California.

### 5.14.5.2 State LORS

Wastewater is regulated by the State and Regional Water Quality Control Boards under the Porter-Cologne Water Quality Control Act. Nonhazardous waste is regulated by the CIWMA, found in Public Resources Code Section 40000, et seq. This law provides an integrated statewide system of solid waste management by coordinating state and local efforts in source reduction, recycling, and land disposal safety. Counties are required to submit Integrated Waste Management Plans to the state. This law directly affects Orange County and the solid waste hauler and disposer that will collect HBEP solid waste. It also affects HBEP to the extent that hazardous wastes are not to be disposed of along with solid waste.

RCRA allows states to develop their own programs to regulate hazardous waste. The programs must be at least as stringent as RCRA. California has developed its own program in the California HWCL (Health and Safety Code Section 25100, et seq.). Because California has elected to develop its own program, the HWCL performs essentially the same regulatory functions as RCRA and is the law that will regulate hazardous waste at HBEP. However, the HWCL includes hazardous wastes that are not classified as hazardous waste under RCRA. Because hazardous wastes will be generated at the HBEP facility during construction and operation, the HWCL will require the Applicant to adhere to storage, recordkeeping, reporting, and training requirements for these wastes.

### 5.14.5.3 Local LORS

The Orange County Integrated Waste Management Department administers the guidance for local management of solid waste in the City of Huntington Beach. For solid nonhazardous waste and hazardous waste, the laws are enforced primarily by the OC HCA-EHD, with hazardous materials business plans and emergency management plans

being enforced by the Huntington Beach Fire Department. Both agencies will serve as the CUPA for HBEP. The OC HCA-EHD serves as the Local Enforcement Agency (LEA) for the project site (Lane, 2012).

Local agency requirements and LORS associated with the project will be addressed before the construction and operation of the facility, and the facility would conform to all local requirements. These include the need to obtain a Hazardous Materials Business Plan (HMBP) from the Huntington Beach Fire Department that will permit the storage of hazardous materials and wastes in accordance with state and local regulations. HMBP will be filed with the Huntington Beach Fire Department and will be updated annually in accordance with applicable regulations.

For emergency spills, the Huntington Beach Fire Department has specialists within its Hazardous Waste Inspection Program who will respond to the spills after initial assessment by the fire department first responders (Smythe, 2012).

The closest fire station to HBEP is Huntington Beach Fire Department's Station No. 4 at 21441 Magnolia Street in Huntington Beach, California, 92646. The station is approximately 1.5 miles away and would provide the first response to a fire at the project site, with an approximate 5-minute response time 80 percent of the time. If hazardous materials were involved in the incident, Station No. 4 would be the first onsite, requesting additional resources from the other seven stations in the district, and the HazMat Team as applicable. If needed, Huntington Beach Fire has mutual aid agreements for additional response from other Orange County fire departments. The HazMat team is stationed at Station No. 6 at 18591 Edwards Street Huntington Beach, California, 92647, approximately 5.5 miles from the project site (Smythe, 2012).

Wastes generated by HBEP will be managed in a manner consistent with applicable LORS.

#### 5.14.5.4 Codes

The design, engineering, and construction of hazardous waste storage and handling systems will be in accordance with all applicable codes and standards:

- The Uniform Fire Code
- The Uniform Building Code
- The Uniform Plumbing Code
- California Building Code
- California Fire Code
- City of Huntington Beach Municipal Code

#### 5.14.6 Agencies and Agency Contacts

Several agencies, including EPA at the federal level and DTSC and California Environmental Protection Agency at the state level, regulate nonhazardous and hazardous waste and will be involved in the regulation of the waste generated by the HBEP. The regulations, however, are administered and enforced primarily through the OC HCA-EHD, which is the designated CUPA, with the Huntington Beach Fire Department acting as a Participating Agency. The persons to contact for nonhazardous and hazardous waste management are listed in Table 5.14-7.

TABLE 5.14-7  
Agency Contacts for Waste Management

Issue	Agency	Persons Contact
<b>Nonhazardous Waste</b>		
Solid Waste and Recycling LEA	OC HCA-EHD (LEA)	Kathryn Cross, Supervising Hazardous Waste Specialist 1241 East Dyer Road, Suite 120 Santa Ana, CA 92705 (714) 433-6270 KCross@ochca.com

TABLE 5.14-7

**Agency Contacts for Waste Management**

<b>Issue</b>	<b>Agency</b>	<b>Persons Contact</b>
Orange County Integrated Waste Management Plan Administration	Orange County Integrated Waste Management Department	Lauren Ortega, Public Relations Specialist OC Waste & Recycling Headquarters 300 N. Flower Street, Suite 400 Santa Ana, CA 92703 (714) 834-7202 Lauren.Ortega@ocwr.ocgov.com
<b>Hazardous Waste</b>		
Hazardous Waste Compliance and Inspections	OC HCA-EHD	Pearl Boelter, Program Manager Environmental Health Division 1241 East Dyer Road, Suite 120 Santa Ana, CA 92705 (714) 433-6010 pboelter@ochca.com  Susan Berg, Inspector Environmental Health Division 1241 East Dyer Road, Suite 120 Santa Ana, CA 92705 (714) 433-6231 sberg@ochca.com
Hazardous Waste Compliance and Inspections	Huntington Beach Fire Department	Dave Smythe, Hazardous Materials Specialist/Program Manager Huntington Beach Fire Department 2000 Main Street Huntington Beach, CA 92648 (714) 536-5469 dsmythe@surfcity-hb.org

### 5.14.7 Permits and Permit Schedule

The temporary storage of hazardous wastes at HBEP will be included in the HMBP submitted to the Huntington Beach Fire Department Hazardous Materials Programs as described in Section 5.5, Hazardous Materials. No additional permits are required and therefore a schedule indicating when permits outside the authority of the CEC will be obtained and the steps the Applicant has taken or plans to take to obtain such permits are not applicable.

### 5.14.8 References Cited or Consulted

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