5.16 Worker Health and Safety

This section analyzes the worker health and safety issues that may be encountered during construction and operation of the Huntington Beach Energy Project (HBEP). Because of the subject matter, this section follows a slightly different format than other sections in Section 5.0 of this Application for Certification (AFC). Instead of a standard discussion of affected environment, followed by the project's environmental consequences and proposed mitigation measures for significant impacts, this section contains worker safety information, including the laws, ordinances, regulations, and standards (LORS) that apply to the construction and operation of HBEP, and the demolition of existing units at the Huntington Beach Generating Station. Section 5.16.1 provides a brief description of the HBEP setting and the construction/demolition and operation work environment. Section 5.16.2 describes the project's fuel handling system. Section 5.16.3 describes the health and safety programs including the safety compliance and training programs that will be established onsite for HBEP construction, demolition and operation. Section 5.16.4 presents the applicable LORS, and Section 5.16.5 lists the regulatory agencies involved and key agency contacts. Section 5.16.6 presents permits required and the permitting schedules, and Section 5.16.7 provides the references used to prepare this section.

AES Southland Development, LLC (AES) considers worker safety to be its number one priority. A cornerstone policy for the delivery of all of AES's global projects and operations provides all workers, whether they are employees or contractors, with the right and responsibility to stop work on any job if unsafe conditions or behaviors are observed during the construction or operational phase of a project. HBEP will adhere to AES's corporate commitment and policies for worker health and safety, and safe work plans will be developed prior to the commencement of construction, demolition, and operational activities.

5.16.1 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, 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 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 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 Alamitos 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 2.1-10 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)

5.16.2 Fuel Handling System

The HBEP combustion turbine generators (CTG) will only combust natural gas. The natural gas requirement during nominal operation conditions is approximately 7,261 MMBtu/hr (total for six CTGs). Natural gas will be delivered to the HBEP site via the existing Southern California Gas Company, high-pressure natural gas pipeline located on the west side of the site near Newland Street. The high-pressure natural gas pipeline is a 16-inch-diameter line that operates at a nominal 145 pounds per square inch (psi). At HBEP, the natural gas will flow through a Southern California Gas Company metering station, and through an HBEP gas pressure control station, gas compression equipment, and gas scrubber/filtering equipment housed in a separate building to attenuate noise, prior to entering the CTGs. The 145 psi natural gas will also flow to the duct burner skid without requiring gas compression but it will require some level of scrubbing and filtration. The natural gas for the building heating systems will flow through the Southern California Gas Company metering station and the HBEP gas pressure control station, but will not require compression, filtering, or heating.

5.16.3 Health and Safety Programs

5.16.3.1 Environmental Checklist

Health and safety impacts analyzed in this AFC are evaluated with respect to the California Environmental Quality Act (CEQA) checklist. However, the CEQA checklist does not have specific questions for worker health and safety. The analysis below, however, is consistent with the analysis routinely conducted by CEC staff related to worker health and safety. Related analyses are also included in Section 5.5, Hazardous Materials Management, and Section 5.7, Noise.

5.16.3.2 Hazard Analysis

Workers will be exposed to HBEP construction/demolition, and operation safety hazards. A hazard analysis is included below to evaluate these hazards and assess control measures. The analysis identifies the hazards anticipated during construction/demolition and operation, and indicates which safety programs should be developed and implemented to mitigate and appropriately manage those hazards. The hazard analysis for construction/demolition activities is presented in Table 5.16-1; the hazard analysis prepared for plant operation is presented in Table 5.16-2. Because the types of hazards anticipated during construction/demolition and operation activities are similar, there is duplication between the tables.

Programs are overall plans that set forth the method or methods that will be followed to achieve particular health and safety objectives. For example, the Fire Protection and Prevention Program will describe what has to be done to protect against and prevent fires. This will include equipment required, such as alarm systems and firefighting equipment, and procedures to follow to protect against fires. The Emergency Action Program/Plan will describe escape procedures, rescue and medical procedures, alarm and communication systems, and response procedures for every hazardous material that can migrate, such as ammonia. The programs or plans are set forth in written documents that are usually kept at specific locations in the facility.

Each program or plan will contain minimum training requirements that are translated into detailed training courses for plant construction/ demolition and operating personnel and will adhere to the Property Owner's corporate safety policy and all applicable Occupation Safety and Health Administration (OSHA) and California Occupational Safety and Health Administration (Cal-OSHA) regulations. Training will be provided to construction/demolition and operating personnel as needed. For example, all plant operating personnel will receive training in escape procedures under the Emergency Action Program/Plan, but only those working with flammables will receive training under the Fire Protection and Prevention Program.

Tables 5.16-1 and 5.16-2 list construction/demolition and operation activities and associated hazards, and includes in the "Control" column the program designed to reduce the occurrence of each hazard.

TABLE 5.16-1
Hazard Analysis for HBEP Construction/Demolition Activities

Activity	Hazard*	Control
Motor vehicle and heavy equipment use	Employee injury and property damage from collisions between people and equipment	Motor Vehicle and Heavy Equipment Safety Program
Forklift operation	Same as heavy equipment	Forklift Operation Program
Trenching and excavation	Employee injury and property damage from the collapse of trenches and excavations or exposure to fumes or vapors that have collected in the trench/excavation	Excavation/Trenching Program
Working at elevated locations	Falls from the same level and elevated areas	Fall Prevention Program Scaffolding/Ladder Safety Program Articulating Boom Platforms Program
Use of cranes and derricks	Property damage from falling loads; employee injuries from falling loads; and injuries and property damage from contact with crane or derrick	Crane and Material Handling Program Crane Operator certification
Working with flammable and combustible liquids	Fire/spills	Fire Protection and Prevention Program; Housekeeping and Material Handling and Storage Program

TABLE 5.16-1
Hazard Analysis for HBEP Construction/Demolition Activities

Activity	Hazard*	Control
Hot work (including cutting and welding)	Employee injury and property damage from fire; exposure to fumes during cutting and welding; ocular exposure to ultraviolet and infrared radiation during cutting and welding	Hot Work Safety Program; Respiratory Protection Program; Employee Exposure Monitoring Program; Personal Protective Equipment (PPE) Program, Fire Protection and Prevention Program; Hexavalent Chromium Program
Inspection and maintenance of temporary systems used during construction activities	Employee injury and property damage from contact with hazardous energy sources (electrical, thermal, mechanical, etc.)	Electrical Safety Program; Lock-Out/Tag-Out Program
Working on electrical equipment and systems	Employee contact with live electricity and energized equipment	Electrical Safety Program; PPE Program
Exposure to asbestos and lead	Personnel who are working with or have the potential to be exposed to asbestos and lead during demolition of existing facility	Asbestos and Lead Program
Exposure to hazardous waste	Personnel who are working with or have the potential to be exposed to contaminated soil, groundwater, or debris during construction/demolition	Hazardous Waste Program
Confined space entry	Employee injury from physical and chemical hazards	Permit-required, Confined-space Entry Program
General construction activity	Employee injury from hand and portable power tools	Hand and Portable Power Tool Safety Program; PPE Program; Powder-actuated Tools Program
General construction activity	Employee injury/property damage from inadequate walking and work surfaces	Housekeeping and Material Handling and Storage Program
General construction activity	Employee exposure to occupational noise	Hearing Conservation Program; PPE Program
General construction activity	Employee injury from improper lifting and carrying of materials and equipment	Back Injury Prevention Program
General construction activity	Employee injury to head, eye/face, hand, body, foot, and skin	PPE Program
General construction activity	Employee exposure to hazardous gases, vapors, dusts, and fumes	Hazard Communication Program; Respiratory Protection Program; PPE Program; Air Monitoring Program
General construction activity	Employee exposure to various hazards; reporting of hazardous conditions during construction	Injury and Illness Prevention Program
General construction activity	Heat and cold stress	Heat and Cold Stress Monitoring and Control Program
Construction and testing of high-pressure steam and air systems	Employee injury and property damage due to failure of pressurized system components or unexpected release of pressure	Pressure Vessel and Pipeline Safety Program; Electrical Safety Program; Lock-Out/Tag-Out Program

*The hazards and hazard controls provided are generic to construction/demolition activities. During various phases of construction/demolition, a task-specific hazard analysis will be performed to more specifically evaluate the relevant hazards and to develop appropriate controls.

TABLE 5.16-2
Hazard Analysis for HBEP Operation Activities

Activity	Hazard*	Control
Motor vehicle and heavy equipment use	Employee injury and property damage from collisions between people and equipment	Motor Vehicle and Heavy Equipment Safety Program
Forklift operations	Same as heavy equipment	Forklift Operation Program
Trenching and excavation	Employee injury and property damage from the collapse of trenches and excavations	Excavation/Trenching Program
Working at elevated locations	Falls from the same level and elevated areas	Fall Protection Program; Scaffolding/Ladder Safety Program
Use of cranes or derricks	Property damage from falling loads, employee injuries from falling loads, injuries and property damage from contact with crane or derrick	Crane and Material Handling Program
Working with flammable and combustible liquids	Fire/spills	Fire Protection and Prevention Program
Working with hazardous materials	Employee injury due to ingestion, inhalation, dermal contact	Hazard Communication Program
Hot work (including cutting and welding)	Employee injury and property damage from fire; exposure to fumes during cutting and welding; ocular exposure to ultraviolet and infrared radiation during cutting and welding	Hot Work Safety Program; Respiratory Protection Program; Employee Exposure Monitoring Program; PPE Program; Fire Protection and Prevention Program; Hexavalent Chromium Program
Transformer Fires	Employee injury and property damage from fire;	A transformer fire protection plan will be included within the Fire Protection and Prevention Program
Troubleshooting and maintenance of plant systems and general operational activities	Employee injury and property damage from contact with hazardous energy sources (electrical, thermal, mechanical, etc.)	Electrical Safety Program; Lock-Out/Tag-Out Program
Working on electrical equipment and systems	Employee contact with live electricity	Electrical Safety Program; PPE Program
Confined space entry	Employee injury from physical and chemical hazards	Permit-required, Confined-space Entry Program
General plant operation activities	Employee injuries from hand and portable power tools	Hand and Portable Power Tool Safety Program; PPE Program
General plant operation activities	Employee injury and property damage from inadequate walking and work surfaces	Housekeeping and Material Handling and Storage Program
General plant operation activities	Employee overexposure to occupational noise	Hearing Conservation Program; PPE Program
General plant operation activities	Employee injury from improper lifting and carrying of materials and equipment	Back Injury Prevention Program
General plant operation activities	Employee injury and property damage from unsafe driving	Safe Driving Program
General plant operation activities	Employee overexposure to hazardous gases, vapors, dusts, and fumes	Hazard Communication Program; Respiratory Protection Program; PPE Program; Employee Exposure Monitoring Program

TABLE 5.16-2
Hazard Analysis for HBEP Operation Activities

Activity	Hazard*	Control
General plant operation activities	Reporting and repair of hazardous conditions	Injury and Illness Prevention Program
General plant operation activities	Heat and cold stress	Heat and Cold Stress Monitoring and Control Program
General plant operation activities	Ergonomic injuries	Ergonomic Awareness Program
Maintenance and repair of high-pressure steam and air systems	Employee injury and property damage due to failure of pressurized system components or unexpected release of pressure	Pressure Vessel and Pipeline Safety Program; Electrical Safety Program; Lock-Out/Tag-Out Program
Ammonia storage	Ammonia release	Emergency Action Program/Plan; Risk Management Plan

* The hazard and hazard controls provided are generic to operational activities. Task specific hazard analysis is required for all medium and high risk work activities in the operational phase.

5.16.3.3 Training and Safety Programs

To protect the safety and health of workers during HBEP construction/demolition and operation, health and safety programs designed to mitigate hazards and comply with applicable regulations will be implemented. Periodic internal audits will be performed by qualified individuals to determine whether proper work practices are being used to mitigate hazardous conditions and to evaluate regulatory compliance. A comprehensive Environmental, Health and Safety audit will be conducted on an annual basis during the construction phase and every 3 years during HBEP operation.

Specific training program content for all construction/demolition employees will be required of all construction/demolition contractors. All construction/demolition workers will be required to attend a HBEP site safety orientation prior to being allowed to work at the site and are required to follow all Federal, State and local employee safety rules and regulations and HBEP Safety programs while on site. Construction/demolition worker safety related certifications and licenses will be verified during the pre-qualification process using PICS[1] and/or a HBEP internal validation process.

The following sections contain information on the anticipated content of the health and safety programs.

5.16.3.3.1 Construction Health and Safety Program

The following construction/demolition safety programs will be developed and implemented during construction/demolition of the HBEP as outlined in the following lists.

Injury and Illness Prevention Program

- Philosophy and safety commitment
- Safety leadership and responsibilities
- Accountability
- Specific core safety processes (see Construction Safety Programs later in this section)
- Employee communication
- Planning “job hazard analysis and pre-task”
- Compliance with work rules and safe work practices
- Measurement of compliance and effectiveness of prevention methods, inspections/audits
- Communication of performance and implementation of necessary improvements
- Training and other communication requirements

[1] PICS is a third-party contractor qualifying system for safety training, performance and work history.

Fire Protection and Prevention Program

- General requirements
- Housekeeping and proper material storage
- Employee alarm/communication system
- Portable fire extinguishers
- Fixed firefighting equipment
- Fire control and containment
- Transformer fire protection and prevention
- Flammable and combustible liquid storage
- Dispensing and disposal of flammable liquids
- Service and refueling areas
- Training

Personal Protective Equipment Program

- Personal protective devices
- Hazard analysis
- Training
- Head protection
- Eye/face protection
- Body protection
- Hand protection
- Foot protection
- Skin protection
- Fall protection
- Electrical arc flash protection
- Respiratory protection
- Hearing protection

First Aid, CPR, and Automated External Defibrillator

- General requirements
- Written program
- Training
- Maintenance

Emergency Action Program/Plan

Emergency procedures for the protection of personnel, equipment, the environment, and materials:

- Fire and emergency reporting procedures
- Response actions for accidents involving personnel and/or property
- Bomb threat response procedures
- Site assembly and emergency evacuation route procedures
- Natural disaster response

Reporting and notification procedures for emergencies and contacts, including offsite and local authorities:

- Alarm and communication systems
- Spill response, prevention, and control action plan
- Emergency response equipment
- Emergency personnel (response team) responsibilities and notification roster
- Training requirements

Construction Safety Programs

Motor Vehicle and Heavy Equipment Safety Program
- Operation and maintenance of vehicles
- Inspection
- PPE
- Training

Forklift Operation Program
- Trained and certified operators
- Fueling operations
- Safe operating parameters
- Training

Excavation/Trenching Program
- Shoring, sloping, and benching requirements
- California Occupational Safety and Health Administration permit requirements
- Inspection
- Air monitoring
- Access and egress

Fall Protection Program
- Evaluation of fall hazards
- Protection devices
- Training

Scaffolding/Ladder Safety Program
- Construction and inspection of equipment
- Proper use
- Training

Articulating Boom Platforms Program
- Inspection of equipment
- Load ratings
- Safe operating parameters
- Operator training

Crane and Material Handling Program
- Certified and licensed operators
- Inspection of equipment
- Load ratings
- Safe operating parameters
- Training

Hazardous Waste Program
- Evaluation of hazard
- Training
- Air monitoring
- Medical surveillance
- Health and Safety Plan preparation

Hexavalent Chromium Program
- Exposure determination
- Monitoring schedule requirements
- Reporting of results (employee notification)
- Recordkeeping
- Establish regulated areas
- Establish hygiene control areas
- Controls implementation
- Medical surveillance
- Training

Hot Work Safety Program
- Welding and cutting procedures
- Acetylene and fuel gas safety procedures
- Fire watch
- Hot work permit
- PPE
- Training

Employee Exposure Monitoring Program
- Exposure evaluation
- Monitoring requirements
- Reporting of results
- Medical surveillance
- Training

Electrical Safety Program
- Grounding procedure
- Overhead and underground utilities
- Utility clearance
- Assured Grounding Program/Ground Fault Circuit Interrupters
- Training

Lock-out/Tag-Out Program
- Allocation of devices (locks, tags, and adaptors)
- Lock-out/tag-out sequencing
- Types/magnitudes of energy
- Types/locations of machines
- Verification
- Training

Permit-required Confined-space Entry Program
- Air monitoring and ventilation requirements
- Rescue procedures
- Lock-out/tag-out and blocking, blinding, and blanking requirements
- Permit completion
- Training

Hand and Portable Power Tool Safety Program
- Guarding and proper operation
- Training

Powder-actuated Tool Safety Program
- Operator qualification
- Inspection requirements
- Repair requirements
- Storage requirements
- Training

Housekeeping and Material Handling and Storage Program
- Storage requirements
- Walkways and work surfaces
- Equipment handling requirements
- Training

Hearing Conservation Program
- Identifying high-noise environments
- Exposure monitoring
- Medical surveillance requirements
- Hearing-protective devices
- Training

Back Injury Prevention Program
- Proper lifting and material handling procedures
- Training

Hazard Communication Program
- Labeling requirements
- Storage and handling
- Material Safety Data Sheets
- Chemical inventory
- Training

Respiratory Protection Program
- Selection and use
- Storage
- Fit testing
- Medical requirements
- Inspection and repair
- Training

Heat and Cold Stress Monitoring and Control Program
- Monitoring requirements
- Prevention and control

Pressure Vessel and Pipeline Safety Program
- Line-breaking program
- Equipment inspection and maintenance
- Blocking, bleeding, and blanking
- Training

5.16.3.3.2 Operation Health and Safety Program

Upon completion of construction and commencement of operations of Block 1 and Block 2 at HBEP, the construction Health and Safety Plan will transition into an operation-oriented program reflecting the hazards and controls necessary during operation. The following outline sets forth the topics that will be included in the Operations Health and Safety Program.

Injury and Illness Prevention Program

- Personnel with the responsibility and authority for implementing the plan
- Safety and health policy
- Work rules and safe work practices
- System for ensuring that employees comply with safe work practices
- Employee communications
- Identification and evaluation of workplace hazards
- Methods and/or procedures for correcting unsafe or unhealthy conditions, work practices, and work procedures in a timely manner based on the severity of the hazards
- Specific safety procedures (see Plant Operation Safety Program)
- Training and instruction

First Aid, CPR, and Automated External Defibrillator

- General requirements
- Written program
- Training
- Maintenance

Fire Protection and Prevention Program

General requirements

- Fire hazard inventory, including ignition sources and mitigation
- Housekeeping and proper materials storage
- Employee alarm/communication system
- Portable fire extinguishers
- Fixed firefighting equipment
- Fire control
- Flammable and combustible liquid storage
- Use of flammable and combustible liquids
- Dispensing and disposal of liquids
- Training
- Personnel to contact for information on plan contents

Emergency Action Program/Plan

This program/plan is part of the Risk Management Plan and Process Safety Management Program.

- Emergency escape procedures and emergency escape route assignments
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate
- Procedures to account for all employees after emergency evacuation has been completed
- Rescue and medical duties for those employees performing rescue and medical duties
- Fire and emergency reporting procedures
- Alarm and communication system
- Personnel to contact for information on plan contents
- Response procedure for ammonia release
- Training requirements

Personal Protective Equipment Program

- Hazard analysis and prescription of PPE
- Personal protective devices
- Head protection
- Eye and face protection
- Body protection
- Hand protection
- Foot protection
- Skin protection
- Sanitation
- Safety belts and life lines for fall protection
- Protection for electric shock
- Medical services and first aid/bloodborne pathogens
- Respiratory protective equipment
- Hearing protection
- Training

Plant Operation Safety Program

Motor Vehicle and Heavy Equipment Safety Program
- Operation and maintenance of vehicles
- Inspection
- PPE
- Training

Forklift Operation Program
- Trained and certified operators
- Fueling operations
- Safe operating parameters
- Training

Excavation/Trenching Program
- Shoring, sloping, and benching requirements
- Cal-OSHA permit requirements
- Inspection
- Air monitoring
- Access and egress

Fall Protection Program
- Evaluation of fall hazards
- Protection devices
- Training

Scaffolding/Ladder Safety Program
- Construction and inspection of equipment
- Proper use
- Training

Articulating Boom Platforms Program
- Inspection of equipment
- Load ratings
- Safe operating parameters
- Operator training

Crane and Material Handling Program
- Certified and licensed operators
- Inspection of equipment
- Load ratings
- Safe operating parameters
- Training

Hot Work Safety Program
- Welding and cutting procedures
- Acetylene and fuel gas safety
- Fire watch
- Hot work permit
- PPE
- Training

Workplace Ergonomics Program
- Identification of personnel at risk
- Evaluation of personnel
- Workplace and job activity modifications
- Training

Employee Exposure Monitoring Program
- Exposure evaluation
- Monitoring requirements
- Reporting of results
- Medical surveillance
- Training

Electrical Safety Program
- Grounding procedure
- Overhead and underground utilities
- Utility clearance
- Training

Lock-out/Tag-Out Program
- Allocation of lock-out/tag-out devices (locks, tags, and adaptors)
- Machine specific lock-out/tag-out procedures
- Steps for verification of isolation
- Training (Affected and Authorized and Interaction with Energized Electrics)
- Annual program review

Permit-required Confined-space Entry Program
- Air monitoring and ventilation requirements
- Rescue procedures
- Lock-out/tag-out and blocking, blinding, and blanking requirements
- Permit completion
- Training

Hand and Portable Power Tool Safety Program
- Guarding and proper operation
- Training

Housekeeping and Material Handling and Storage Program
- Storage requirements
- Walkways and work surfaces
- Equipment handling requirements
- Training

Hearing Conservation Program
- Identifying high-noise environments
- Exposure monitoring
- Medical surveillance requirements
- Hearing-protective devices
- Training

Back Injury Prevention Program
- Proper lifting and material-handling procedures
- Training

Hazard Communication Program
- Labeling requirements
- Storage and handling
- Material Safety Data Sheets
- Chemical inventory
- Training

Respiratory Protection Program
- Selection and use
- Storage
- Fit testing
- Medical requirements
- Inspection and repair
- Training

Heat and Cold Stress Monitoring and Control Program
- Monitoring requirements
- Prevention and control

Pressure Vessel and Pipeline Safety Program
- Line-breaking policy
- Equipment inspection and maintenance
- Blocking, bleeding, and blanking
- Communication
- Training

Safe Driving Program
- Inspection and maintenance
- Training

5.16.3.3.3 Safety Training

To ensure that employees recognize and understand how to protect themselves from potential hazards during this project, comprehensive training programs for construction/demolition and operations personnel will be implemented as indicated in Tables 5.16-3 and 5.16-4. Each of the safety procedures developed to control and mitigate potential site hazards will require some form of training. Training will be delivered in various ways, depending on the requirements of Cal-OSHA standards, the complexity of the topic, the characteristics of the workforce, and the degree of risk associated with each of the identified hazards. Training for

construction/demolition personnel will be prepared and conducted by the Engineering, Procurement and Construction (EPC) contractor, and operational training will be prepared and conducted by the Property Owner.

Tables 5.16-3 and 5.16-4 summarizes the safety training programs that will be provided to construction/demolition personnel (prepared and conducted by the EPC contractor) and operations personnel (prepared and conducted by the Property Owner), respectively. Specific details regarding what will be included in the training is located in sections 5.16.3.3.1 and 5.16.3.3.2.

TABLE 5.16-3
HBEP Proposed Construction/Demolition Training Program (to be prepared and conducted by EPC contractor)

Training Course	Target Employees
Injury and Illness Prevention Training	All
Emergency Action Program/Plan	All
PPE Training	All
Motor Vehicle and Heavy Equipment Safety Training	Employees working on, near, or with heavy equipment or vehicles
Forklift Operation Training	Employees operating forklifts
Excavation/Trenching Safety Training	Employees involved with trenching or excavation
Fall Protection Training	Employees working at heights greater than 6 feet or required to use fall protection
Scaffolding/Ladder Safety Training	Employees required to erect or use scaffolding
Crane Safety Training	Employees supervising or performing crane operations
Fire Protection and Prevention Training	Employees responsible for the handling and storage of flammable or combustible liquids or gases
Hazard Communication Training	Employees handling or working with hazardous materials
Hazardous Waste	Employees handling or excavating hazardous waste
Hot Work Safety Training	Employees performing hot work
Lock-Out/Tag-Out Training	Employees performing lock-out/tag-out or working on systems that require lock-out/tag-out activities
Electrical Safety Training	Employees required to work on electrical systems and equipment, or use electrical equipment and cords
Permit-required Confined-space Entry Training	Employees required to supervise or perform confined-space entry activities
Hand and Portable Power Tool Safety Training	Employees who will be operating hand and portable power tools
Powder-actuated Tool Safety Training	Employees who will be operating powder-actuated tools
Heat Stress and Cold Stress Safety Training	Employees who are exposed to temperature extremes
Hearing Conservation Training	All
Back Injury Prevention Training	All
Safe Driving Training	Employees supervising or driving motor vehicles
Pressure Vessel and Pipeline Safety Training	Employees supervising or working on pressurized systems or equipment
Respiratory Protection Training	All employees required to wear respiratory protection
Fire Protection and Prevention Training	All
First Aid, CPR, and Automated External Defibrillator	All

TABLE 5.16-4
HBEP Operations Training Program (to be prepared and conducted by the Property Owner)

Training Course	Target Employees
Injury and Illness Prevention Training	All
Emergency Action Plan	All
PPE Training	All
Excavation/Trenching Safety Training	Employees involved with trenching or excavation
Scaffolding/Ladder Safety Training	Employees required to erect or use scaffolding
Fall Protection Training	Employees required to use fall protection
Forklift Operator Training	Employees operating forklifts
Crane Safety Training	Employees supervising or performing crane operations
Workplace Ergonomics	Employees performing repetitive activities
Fire Protection and Prevention Training	Employees responsible for the handling and storage of flammable or combustible liquids or gasses
Hot Work Safety Training	Employees performing hot work
Lock-out/Tag-out Training	Employees performing lock-out/tag-out activities
Electrical Safety Training	Employees required to work on electrical systems and equipment
Permit-required Confined-space Entry	Employees required to supervise or perform confined-space entry
Hand and Portable Power Tool Safety Training	Employees that will be operating hand and portable power tools
Heat Stress and Cold Stress Safety Training	Employees exposed to temperature extremes
Hearing Conservation Training	All
Back Injury Prevention Training	All
Safe Driving Training	Employees supervising or driving motor vehicles
Hazard Communication Training	Employees handling or working around hazardous materials
Pressure Vessel and Pipeline Safety Training	Employees supervising or working on pressurized systems or equipment
Respiratory Protection Program	All employees required to wear respiratory protection
Fire Protection and Prevention Training	All
First Aid, CPR, and Automated External Defibrillator	Qualified Electrical Employees and Affected Emergency Responders

5.16.3.4 Fire Protection

The Huntington Beach Fire Department includes eight fire stations. Station 4, located at 21441 Magnolia Street in Huntington Beach, is approximately 0.5 mile northeast of the HBEP site and would be the primary responding fire station to the project site. Approximate response time from Station 4 to the project site is 5 minutes (Smythe, 2012). Mutual aid response would come from the other fire stations in the Huntington Beach Fire Department and, if necessary, from nearby Orange County fire departments. The Applicant has engaged the Huntington Beach Fire Department in discussions regarding the project's fire protection needs and the Huntington Beach Fire Department's ability to respond. HBEP's onsite fire suppression system is described in Section 2.0, Project Description, and Appendix 2C, Engineering Design Criteria.

5.16.4 Laws, Ordinances, Regulations, and Standards

HBEP construction/demolition and operation will be conducted in accordance with all applicable LORS. Table 5.16-5 summarizes the federal, state, and local (Orange County and City of Huntington Beach) LORS relating to worker health and safety. Table 5.16-5 also provides a summary of the applicable national consensus standards.

TABLE 5.16.5
Laws, Ordinances, Regulations, and Standards for Worker Health and Safety

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
Federal			
Title 29 Code of Federal Regulations (CFR) Part 1910	Contains the minimum occupational safety and health standards for general industry in the United States	OSHA	Section 5.16.3
Title 29 CFR Part 1926	Contains the minimum occupational safety and health standards for the construction industry in the United States	OSHA	Section 5.16.3
State			
California Occupational Safety and Health Act, 1970	Establishes minimum safety and health standards for construction and general industry operations in California	Cal-OSHA	Section 5.16.3
8 California Code of Regulations (CCR) 339	Requires list of hazardous chemicals relating to the Hazardous Substance Information and Training Act	Cal-OSHA	Section 5.16.3
8 CCR 450	Addresses hazards associated with pressurized vessels	Cal-OSHA	Section 5.16.3
8 CCR 750	Addresses hazards associated with high-pressure steam	Cal-OSHA	Section 5.16.3
8 CCR 1509	Addresses requirements for construction, accident, and prevention plans	Cal-OSHA	Section 5.16.3
8 CCR 1509, et seq., and 1684, et seq.	Addresses construction hazards, including head, hand, and foot injuries and noise and electrical shock	Cal-OSHA	Section 5.16.3
8 CCR 1528, et seq., and 3380, et seq.	Requirements for PPE	Cal-OSHA	Section 5.16.3
8 CCR 1532, and 5206	Addresses Chromium IV (Hexavalent Chromium)	Cal-OSHA	Section 5.16.3
8 CCR 1597, et seq., and 1590, et seq.	Requirements addressing the hazards associated with traffic accidents and earth-moving	Cal-OSHA	Section 5.16.3
8 CCR 1604, et seq.	Requirements for construction hoist equipment	Cal-OSHA	Section 5.16.3
8 CCR 1620, et seq., and 1723, et seq.	Addresses miscellaneous hazards	Cal-OSHA	Section 5.16.3
8 CCR 1709, et seq.	Requirements for steel reinforcing, concrete pouring, and structural steel erection operations	Cal-OSHA	Section 5.16.3
8 CCR 1920, et seq.	Requirements for fire protection systems	Cal-OSHA	Section 5.16.3
8 CCR 2300, et seq., and 2320, et seq.	Requirements for addressing low-voltage electrical hazards	Cal-OSHA	Section 5.16.3
8 CCR 2395, et seq.	Addresses electrical installation requirements	Cal-OSHA	Section 5.16.3
8 CCR 2700, et seq.	Addresses high-voltage electrical hazards	Cal-OSHA	Section 5.16.3
8 CCR 3200, et seq., and 5139, et seq.	Requirements for control of hazardous substances	Cal-OSHA	Section 5.16.3

TABLE 5.16.5
Laws, Ordinances, Regulations, and Standards for Worker Health and Safety

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
8 CCR 3203, et seq.	Requirements for operational accident prevention programs	Cal-OSHA	Section 5.16.3
8 CCR 3270, et seq., and 3209, et seq.	Requirements for evacuation plans and procedures	Cal-OSHA	Section 5.16.3
8 CCR 3301, et seq.	Requirements for addressing miscellaneous hazards, including hot pipes, hot surfaces, compressed air systems, relief valves, enclosed areas containing flammable or hazardous materials, rotation equipment, pipelines, and vehicle-loading dock operations	Cal-OSHA	Section 5.16.3
8 CCR 3360, et seq.	Addresses requirements for sanitary conditions	Cal-OSHA	Section 5.16.3
8 CCR 3511, et seq., and 3555, et seq.	Requirements for addressing hazards associated with stationary engines, compressors, and portable, pneumatic, and electrically powered tools	Cal-OSHA	Section 5.16.3
8 CCR 3649, et seq., and 3700, et seq.	Requirements for addressing hazards associated with field vehicles	Cal-OSHA	Section 5.16.3
8 CCR 3940, et seq.	Requirements for addressing hazards associated with power transmission, compressed air, and gas equipment	Cal-OSHA	Section 5.16.3
8 CCR 5109, et seq.	Requirements for addressing construction accident and prevention programs	Cal-OSHA	Section 5.16.3
8 CCR 5110, et seq.	Requirements for the implementation of an ergonomics program	Cal-OSHA	Section 5.16.3
8 CCR 5139, et seq.	Requirements for addressing hazards associated with welding, sandblasting, grinding, and spray-coating	Cal-OSHA	Section 5.16.3
8 CCR 5150, et seq.	Requirements for confined space entry	Cal-OSHA	Section 5.16.3
8 CCR 5155, et seq.	Requirements for use of respirators and for controlling employee exposure to airborne contaminants	Cal-OSHA	Section 5.16.3
8 CCR 5160, et seq.	Requirements for addressing hot, flammable, poisonous, corrosive, and irritant substances	Cal-OSHA	Section 5.16.3
8 CCR 5192, et seq.	Requirements for conducting emergency response operations	Cal-OSHA	Section 5.16.3
8 CCR 5193, et seq.	Requirements for controlling employee exposure to blood-borne pathogens associated with exposure to raw sewage water and body fluids associated with first aid/CPR duties	Cal-OSHA	Section 5.16.3
8 CCR 5194, et seq.	Requirements for employee exposure to dusts, fumes, mists, vapors, and gases	Cal-OSHA	Section 5.16.3
8 CCR 5405, et seq.; 5426, et seq.; 5465, et seq.; 5500, et seq.; 5521, et seq.; 5545, et seq.; 5554, et seq.; 5565, et seq.; 5583, et seq.; and 5606, et seq.	Requirements for flammable liquids, gases, and vapors	Cal-OSHA	Section 5.16.3
8 CCR 5583, et seq.	Requirements for design, construction, and installation of venting, diking, valving, and supports	Cal-OSHA	Section 5.16.3

TABLE 5.16.5
Laws, Ordinances, Regulations, and Standards for Worker Health and Safety

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
8 CCR 6150, et seq.; 6151, et seq.; 6165, et seq.; 6170, et seq.; and 6175, et seq.	Fire protection requirements	Cal-OSHA	Section 5.16.3
Title 24, Part 3, California Electrical Code	The Cal-OSHA electrical safety regulations incorporate the requirements of the Uniform Electrical Code located in Title 24, Part 3	Cal-OSHA	Section 5.16.3
8 CCR, Part 6	Provides health and safety requirements for working with tanks and boilers	Cal-OSHA	Section 5.16.3
Health and Safety Code Section 25531, et seq.	Requires that every new or modified facility that handles, treats, stores, or disposes of more than the threshold quantity of any of the listed regulated materials prepare and maintain a Risk Management Plan	Cal-OSHA	Section 5.16.3
Health and Safety Code Sections 25500 through 25541	Requires the preparation of a Hazardous Material Business Plan that details emergency response plans for a hazardous materials emergency at the facility	Cal-OSHA	Section 5.16.3
Local			
Orange County, Title 3, Division 3, Article 1	Adopts the 2010 California Fire Code, and enforcement by Orange County Fire Authority	Orange County Fire Authority	Section 5.16.3
Huntington Beach Municipal Code Chapter 17.56 Sections 17.56.540 through 17.56.780	Requirements pertaining to the storage, handling, and use of hazardous substances, combustible substances, and explosives	Huntington Beach Fire Department	Section 5.16.3
Huntington Beach Municipal Code Chapter 17.58 Sections 17.58.010 through 17.58.160	Requires all entities in the City of Huntington Beach that handle, store, or use hazardous materials above certain threshold quantities to file a Hazardous Materials Disclosure Package with the Fire Department's Hazardous Materials Disclosure Program office	Huntington Beach Fire Department	Section 5.16.3
Business Plan	Provides response agency with overview of HBEP purpose and operations	Certified Unified Program Agency, administered by the Huntington Beach Fire Department	Section 5.16.3
National Standards			
Uniform Fire Code, Article 80	Addresses the prevention, control, and mitigation of dangerous conditions related to storage, dispensing, use, and handling of hazardous materials and information needed by emergency response personnel	Huntington Beach Fire Department	Section 5.16.3
National Fire Protection Association (NFPA) 10, Standard for Portable Fire Extinguishers	Requirements for selection, placement, inspection, maintenance, and employee training for portable fire extinguishers	Huntington Beach Fire Department	Section 5.16.3
NFPA 11, Standard for Low-Expansion Foam and Combined Agent Systems	Requirements for installation and use of low-expansion foam and combined-agent systems	Huntington Beach Fire Department	Section 5.16.3

TABLE 5.16.5
Laws, Ordinances, Regulations, and Standards for Worker Health and Safety

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
NFPA 11A, Standard for Medium- and High- Expansion Foam Systems	Requirements for installation and use of medium- and high-expansion foam systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 12, Standard on Carbon Dioxide Extinguishing Systems	Requirements for installation and use of carbon dioxide extinguishing systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 13, Standard for Installation of Sprinkler Systems	Guidelines for selection and installation of fire sprinkler systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 13A, Recommended Practice for the Inspection, Testing, and Maintenance of Sprinkler Systems	Guidance for inspection, testing, and maintenance of sprinkler systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 14, Standard for the Installation of Standpipe and Hose Systems	Guidelines for selection and installation of standpipe and hose systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 15, Standard for Water Spray Fixed Systems	Guidelines for selection and installation of water spray fixed systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 17, Standard for Dry Chemical Extinguishing Systems	Guidance for selection and use of dry chemical extinguishing systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 20, Standard for the Installation of Centrifugal Fire Pumps	Guidance for selection and installation of centrifugal fire pumps	Huntington Beach Fire Department	Section 5.16.3
NFPA 22, Standard for Water Tanks for Private Fire Protection	Requirements for water tanks for private fire protection	Huntington Beach Fire Department	Section 5.16.3
NFPA 24, Standard for the Installation of Private Fire Service Mains and Their Appurtenances	Requirements for private fire service mains and their appurtenances	Huntington Beach Fire Department	Section 5.16.3
NFPA 26, Recommended Practice for the Supervision of Valves Controlling Water Supplies	Supervision guidance for valves controlling water supplies	Huntington Beach Fire Department	Section 5.16.3
NFPA 30, Flammable and Combustible Liquid Code	Requirements for storage and use of flammable and combustible liquids	Huntington Beach Fire Department	Section 5.16.3
NFPA 37, Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines	Fire protection requirements for installation and use of combustion engines and gas turbines	Huntington Beach Fire Department	Section 5.16.3
NFPA 50A, Standard for Gaseous Hydrogen Systems at Consumer Sites	Fire protection requirements for hydrogen systems	Huntington Beach Fire Department	Section 5.16.3

TABLE 5.16.5
Laws, Ordinances, Regulations, and Standards for Worker Health and Safety

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
NFPA 54, National Fuel Gas Code	Fire protection requirements for use of fuel gases	Huntington Beach Fire Department	Section 5.16.3
NFPA 59A, Standard for the Storage and Handling of Liquefied Petroleum Gases	Requirements for storage and handling of liquefied petroleum gases	Huntington Beach Fire Department	Section 5.16.3
NFPA 68, Guide for Explosion Venting	Guidance in design of facilities for explosion venting	Huntington Beach Fire Department	Section 5.16.3
NFPA 70, National Electric Code	Guidance on safe selection and design, installation, maintenance, and construction of electrical systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 70B, Recommended Practice for Electrical Equipment Maintenance	Guidance on electrical equipment maintenance	Huntington Beach Fire Department	Section 5.16.3
NFPA 70E, Standard for Electrical Safety Requirements for Employee Workplaces	Employee safety requirements for working with electrical equipment	Huntington Beach Fire Department	Section 5.16.3
NFPA 71, Standard for the Installation, Maintenance, and Use of Central Station Signaling Systems	Requirements for installation, maintenance, and use of central station signaling systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 72A, Standard for the Installation, Maintenance, and Use of Local Protective Signaling Systems for Guard's Tour, Fire Alarm, and Supervisory Service	Requirements for installation, maintenance, and use of local protective signaling systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 72E, Standard on Automatic Fire Detection	Requirements for automatic fire detection	Huntington Beach Fire Department	Section 5.16.3
NFPA 72F, Standard for the Installation, Maintenance, and Use of Emergency Voice/Alarm of Communication Systems	Requirements for installation, maintenance, and use of emergency and alarm communications systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 72H, Guide for Testing Procedures for Local, Auxiliary, Remote Station, and Proprietary Protective Signaling Systems	Testing procedures for types of signaling systems anticipated for facility	Huntington Beach Fire Department	Section 5.16.3
NFPA 75, Standard for the Protection of Electronic Computer/Data Processing Equipment	Requirements for fire protection systems used to protect computer systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 78, Lightning Protection Code	Lightning protection requirements	Huntington Beach Fire Department	Section 5.16.3

TABLE 5.16.5
Laws, Ordinances, Regulations, and Standards for Worker Health and Safety

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
NFPA 80, Standard for Fire Doors and Windows	Requirements for fire doors and windows	Huntington Beach Fire Department	Section 5.16.3
NFPA 90A, Standard for the Installation of Air Conditioning and Ventilating Systems	Requirements for installation of air conditioning and ventilating systems	Huntington Beach Fire Department	Section 5.16.3
NFPA 101, Code for Safety to Life from Fire in Buildings and Structures	Requirements for design of means of exiting the facility	Huntington Beach Fire Department	Section 5.16.3
NFPA 291, Recommended Practice for Fire Flow Testing and Marking of Hydrants	Guidelines for testing and marking of fire hydrants	Huntington Beach Fire Department	Section 5.16.3
NFPA 850, Recommended Practice for Fire Protection for Fossil Fuel Steam Electric Generating Plants	Requirements for fire protection in fossil-fuel steam electric generating plants	Huntington Beach Fire Department	Section 5.16.3
NFPA 1961, Standard for Fire Hose	Specifications for fire hoses	Huntington Beach Fire Department	Section 5.16.3
NFPA 1962, Standard for the Care, Maintenance, and Use of Fire Hose Including Connections and Nozzles	Requirements for care, maintenance, and use of fire hoses	Huntington Beach Fire Department	Section 5.16.3
NFPA 1963, Standard for Screw Threads and Gaskets for Fire Hose Connections	Specifications for fire hose connections	Huntington Beach Fire Department	Section 5.16.3
American National Standards Institute/American Society of Mechanical Engineers (ANSI/ASME), Boiler and Pressure Vessel Code	Specifications and requirements for pressure vessels	N/A	Section 5.16.3
ANSI, B31.2, Fuel Gas Piping	Specifications and requirements for fuel gas piping	N/A	Section 5.16.3

Sources: City of Huntington Beach, 2012
Lane, 2012
Smythe, 2012
Orange County, 2012

5.16.5 Agencies and Agency Contacts

Several agencies are involved to ensure protection of worker health and safety. Agency contacts relative to worker health and safety and fire are shown in Table 5.16-6.

TABLE 5.16-6
Agency Contacts for Worker Health and Safety

Issue	Agency	Persons Contacted
CUPA for Hazardous Materials Inventory and Emergency Business Plan and Risk Management Plan, Fire Department Permits, Hazardous Materials Response	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
All other CUPA Programs	Orange County Health Care Agency-Environmental Health Division	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
Worker Health and Safety	Cal-OSHA, Santa Ana	Brandon Hart (Officer on Duty) 2000 E. McFadden Avenue, Suite 122 Santa Ana, CA 92705 (714) 558-4451

5.16.6 Permits and Permit Schedule

Table 5.16-7 lists applicable permits related to the protection of worker health and safety for HBEP certification. The activities covered and application requirements to obtain each permit are provided.

All permits noted in Table 5.16-7 may be obtained from any Cal-OSHA district or field office as needed. Notification requirements are listed as 24 hours because the permits may be required at several points in the construction of the plant or during operations; no specific permitting schedule is provided.

TABLE 5.16-7
Permits and Permit Schedule for Worker Health and Safety

Permit	Agency Contact	Schedule
Trenching and excavation permit	Any Cal-OSHA district or field office	Submit completed permit application to any Cal-OSHA district or field office prior to commencing construction
Permit to erect a fixed tower crane	Any Cal-OSHA district or field office	Submit completed permit application to any Cal-OSHA district or field office at least 24 hours prior to initiation of activity
Pressure vessel permit	Any Cal-OSHA district or field office	Submit completed permit application to any Cal-OSHA district or field office prior to commencing construction

5.16.7 References

City of Huntington Beach. 2012. City of Huntington Beach Fire Department website, accessed February 2012 at http://huntingtonbeachca.gov/government/departments/fire/.

Lane, Christine / Orange County Health Care Agency Environmental Health Division. 2012. Personal communication with Jessica Brandt/CH2M HILL. March 20.

Orange County. 2012. Orange County Health Care Agency Environmental Health Division website, accessed February 2012 at http://www.ochealthinfo.com/eh.

Smythe, David / Huntington Beach Fire Department, Hazardous Materials Specialist. 2012. Email communication with Jessica Brandt/CH2M HILL. March 19.