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5.10 Worker Safety

This section summarizes the worker health and safety issues that may be encountered during construction and operation of the Darden Clean Energy Project (Project). This section addresses California Energy Commission (CEC) requirements for Opt-In Applications, as specified in Title 20, California Code of Regulations, Section 1704, Appendix B for worker safety. Section 5.10.1 contains a brief description of the work environment and setting. Section 5.10.2 describes the analyses conducted to identify hazards for health and safety programs, as well as the safety compliance and training programs that would be established during Project construction and operation (including maintenance). Section 5.10.3 presents laws, ordinances, regulations, and standards (LORS) applicable to worker safety. Section 5.10.4 identifies regulatory agency contacts. Section 5.10.5 describes permits required for the Project related to worker safety. Section 5.10.6 provides references for this section.

5.10.1 Environmental Setting

The Project site is located in an agricultural area of unincorporated Fresno County south of the community of Cantua Creek. Fresno County has a mild climate, with external working conditions in the summers being long, hot, and dry and winter conditions being mild with light rain. Typically, most seasonal precipitation occurs between October and April, and lightning occurs during the summer monsoonal moisture season. Over the course of the year, temperature typically varies from 39 degrees Fahrenheit (°F) to 99°F and is rarely below 31°F or above 106°F, and extreme heat and cold conditions are uncommon.

5.10.2 Hazards Analysis

5.10.2.1 Methodology

Project construction, operations and maintenance (O&M), and decommissioning activities have the potential to expose workers to safety hazards. A hazard analysis was conducted to determine impacts to worker health and safety from these Project activities. The analysis identifies the hazards anticipated during construction, O&M, and decommissioning activities and indicates which safety programs should be developed and implemented to avoid, mitigate, and/or appropriately manage such hazards.

5.10.2.2 Impact Evaluation Criteria

The California Environmental Quality Act (CEQA) Environmental Checklist (Appendix G of the CEQA Guidelines) does not include criteria that specifically address health and safety related impacts to Project construction and operation personnel. CEQA Environmental Checklist impact evaluation criteria related to workers residing in the Project area are included under Section 5.3, *Noise*, and Section 5.9, *Hazardous Materials Handling*. The following section provides a hazard analysis of construction and O&M activities to address CEC requirements for Opt-In Applications, as specified in Title 20, California Code of Regulations, Section 1704, Appendix B for worker safety.

5.10.2.3 Hazard Analysis

Table 5.10-1 shows the results of the hazards analysis for Project construction activities and Table 5.10-2 shows the results for Project O&M activities. Outlines for the programs and plans described in Table 5.10-1 and Table 5.10-2 are included in Section 5.10.2.4.

Table 5.10-1 Project Construction Hazard Analysis

Activity	Hazard	Control Program
Motor vehicle and heavy equipment use	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage from collisions between people, motor vehicles, and/or equipment. 	<ul style="list-style-type: none"> ▪ Construction Injury and Illness Prevention Program (Construction IIPP) ▪ Construction Personal Protective Equipment Program (Construction PPE Program)
Forklift operation	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage from collisions between people, forklifts, and/or equipment. 	<ul style="list-style-type: none"> ▪ Construction IIPP ▪ Construction PPE Program
Trench and excavation	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage from the collapse of trenches and excavations. ▪ Exposure to fumes or vapors that have collected in the trench/excavation. 	<ul style="list-style-type: none"> ▪ Construction IIPP ▪ Construction PPE Program
Working at elevated locations	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage resulting from falls from elevated areas. ▪ Personnel injury resulting from overhead hazards. 	<ul style="list-style-type: none"> ▪ Construction IIPP ▪ Construction PPE Program
Crane operation	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage from falling loads. ▪ Injuries and property damage from contact with crane or derrick. 	<ul style="list-style-type: none"> ▪ Construction IIPP ▪ Construction PPE Program
Working with flammable and combustible liquids	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage resulting from fire/spills. 	<ul style="list-style-type: none"> ▪ Construction IIPP ▪ Construction PPE Program ▪ Construction Fire Protection and Prevention Plan ▪ Construction Hazardous Materials Business Plan (HMBP) ▪ Construction Spill Prevention Control and Countermeasure (SPCC) Plan
Hot work (including cutting and welding)	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage from fire or exposure to hot materials. ▪ Exposure to fumes during cutting and welding. ▪ Personnel injury resulting from ocular exposure to ultraviolet and infrared radiation during cutting and welding. 	<ul style="list-style-type: none"> ▪ Construction IIPP ▪ Construction PPE Program ▪ Construction Fire Protection and Prevention Plan
Inspection and maintenance of temporary systems	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage from contact with hazardous energy sources (electrical, thermal, and mechanical). 	<ul style="list-style-type: none"> ▪ Construction IIPP ▪ Construction PPE Program

Activity	Hazard	Control Program
Working on electrical equipment	<ul style="list-style-type: none"> Personnel injury resulting from contact with live electricity and energized equipment. Fire hazard resulting from contact with live electricity and energized equipment. 	<ul style="list-style-type: none"> Construction IIPP Construction PPE Program Construction Fire Protection and Prevention Plan
Exposure to hazardous waste	<ul style="list-style-type: none"> Personnel exposure to contaminated soil, groundwater, or debris during construction. 	<ul style="list-style-type: none"> Construction IIPP Construction PPE Program Construction HMBP
Confined space entry	<ul style="list-style-type: none"> Personnel injury from physical and chemical hazards during activities conducted within a confined space. 	<ul style="list-style-type: none"> Construction IIPP Construction PPE Program
General construction activities	<ul style="list-style-type: none"> Personnel injury from hand and portable power tools. Personnel injury/property damage from inadequate walking and work surfaces and/or poor housekeeping. Personnel exposure to occupational noise. Personnel injury from improper lifting, carrying materials and equipment, and poor ergonomics. Personnel exposure to hazardous gases, vapors, dusts, and fumes. Personnel exposure to various hazards. Heat and cold stress. Personnel injury and property damage from unsafe driving. 	<ul style="list-style-type: none"> Construction IIPP Construction PPE Program
Grading or excavation activities	<ul style="list-style-type: none"> Personnel exposure to potentially contaminated soil associated with abandoned oil wells 	<ul style="list-style-type: none"> Soil Management Plan (SMP)
Construction and testing of high-pressure systems	<ul style="list-style-type: none"> Personnel injury and/or property damage attributable to failure of pressurized system components or unexpected release of pressure. 	<ul style="list-style-type: none"> Construction IIPP Construction PPE Program
Working near water	<ul style="list-style-type: none"> Personnel injury when working near on-site stormwater retention ponds, wastewater treatment systems, or storage tanks. 	<ul style="list-style-type: none"> Construction IIPP
Working outdoors/ remote	<ul style="list-style-type: none"> Personnel injury resulting from working alone and/or in a remote area. Personnel injury and/or property damage resulting from lightning strikes during a storm. 	<ul style="list-style-type: none"> Construction IIPP
Biological hazards	<ul style="list-style-type: none"> Personnel injury and/or property damage resulting from wildfire hazards. Personnel injury resulting from exposure to flora/fauna. Exposure to COVID-19 or other pathogens. 	<ul style="list-style-type: none"> Construction IIPP Construction PPE Program

Activity	Hazard	Control Program
Gaseous/liquid hydrogen storage	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage attributable to failure of hydrogen storage system components or unexpected release of hydrogen. 	<ul style="list-style-type: none"> ▪ Construction IIPP ▪ Construction PPE Program ▪ Construction Fire Protection and Prevention Plan ▪ Construction HMBP
Helicopter use	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage when working near helicopter or other aircraft. 	<ul style="list-style-type: none"> ▪ Construction IIPP ▪ Construction PPE Program ▪ Helicopter Use Plan/Quanta H Certification
Fire/explosion hazards	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage from contact with explosive energy sources. ▪ Personnel exposure to post blast air quality. ▪ Personnel injury and/or property due to improper storage and transport of explosives. ▪ Theft of explosives. 	<ul style="list-style-type: none"> ▪ Construction IIPP ▪ Construction PPE Program ▪ Construction Fire Protection and Prevention Plan

Source: California Code of Regulations (CCR), Occupational Safety and Health Administration (OSHA) Job Hazard Analysis

Table 5.10-2 O&M Hazard Analysis

Activity	Hazard	Control Program
Motor vehicle and heavy equipment use	<ul style="list-style-type: none"> Personnel injury and/or property damage from collisions between people, motor vehicles, and/or equipment. 	<ul style="list-style-type: none"> O&M IIPP O&M PPE Program
Forklift operation	<ul style="list-style-type: none"> Personnel injury and/or property damage from collisions between people, forklifts, and/or equipment. 	<ul style="list-style-type: none"> O&M IIPP O&M PPE Program
Trench and excavation	<ul style="list-style-type: none"> Personnel injury and/or property damage from the collapse of trenches and excavations. Exposure to fumes or vapors that have collected in the trench/excavation. 	<ul style="list-style-type: none"> O&M IIPP O&M PPE Program
Working at elevated locations	<ul style="list-style-type: none"> Personnel injury and/or property damage resulting from falls from elevated areas. Personnel injury resulting from overhead hazards. 	<ul style="list-style-type: none"> O&M IIPP O&M PPE Program
Crane operation	<ul style="list-style-type: none"> Property damage from falling loads. Personnel injuries from falling loads. Injuries and property damage from contact with crane or derrick. 	<ul style="list-style-type: none"> O&M IIPP O&M PPE Program
Working with flammable and combustible liquids	<ul style="list-style-type: none"> Personnel injury and/or property damage resulting from fire/spills. 	<ul style="list-style-type: none"> O&M IIPP O&M PPE Program O&M Fire Protection and Prevention Plan Emergency Action Plan O&M HMBP O&M SPCC
Working with hazardous materials	<ul style="list-style-type: none"> Personnel injury (chemical burns, inhalation, digestion, absorption) resulting from exposure to hazardous chemicals. 	<ul style="list-style-type: none"> O&M IIPP O&M PPE Program O&M HMBP Emergency Action Plan
Hot work (including cutting and welding)	<ul style="list-style-type: none"> Personnel injury and/or property damage resulting from fire. Personnel exposure to fumes during cutting and welding. Ocular exposure to ultraviolet and infrared radiation during cutting and welding. 	<ul style="list-style-type: none"> O&M IIPP O&M PPE Program O&M Fire Protection and Prevention Plan
Troubleshooting and maintenance of Project systems and general operational activities	<ul style="list-style-type: none"> Personnel injury and/or property damage from contact with hazardous energy sources (e.g., electrical, thermal, and mechanical). 	<ul style="list-style-type: none"> O&M IIPP O&M PPE Program O&M HMBP

Activity	Hazard	Control Program
Working on electrical equipment	<ul style="list-style-type: none"> ▪ Personnel injury resulting from contact with live electricity and energized equipment. ▪ Fire hazard resulting from contact with live electricity and energized equipment. 	<ul style="list-style-type: none"> ▪ O&M IIPP ▪ O&M PPE Program
Confined space entry	<ul style="list-style-type: none"> ▪ Personnel injury from physical and chemical hazards during activities conducted within a confined space. 	<ul style="list-style-type: none"> ▪ O&M IIPP ▪ O&M PPE Program
General Project operations	<ul style="list-style-type: none"> ▪ Personnel injury and property damage from unsafe driving. ▪ Personnel overexposure to hazardous gases, vapors, dusts, and fumes. ▪ Personnel injury from hand and portable power tools. ▪ Personnel injury/property damage from inadequate walking and work surfaces and/or poor housekeeping. ▪ Personnel exposure to occupational noise. ▪ Personnel injury from improper lifting and carrying materials and equipment. ▪ Personnel exposure to hazardous gases, vapors, dusts, and fumes. ▪ Personnel exposure to various hazards. ▪ Heat and cold stress. 	<ul style="list-style-type: none"> ▪ O&M IIPP ▪ O&M PPE Program
Maintaining and repairing high-pressure systems	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage attributable to failure of pressurized system components or unexpected release of pressure. 	<ul style="list-style-type: none"> ▪ O&M IIPP ▪ O&M PPE Program
Working near water	<ul style="list-style-type: none"> ▪ Personnel injury when working near on-site stormwater retention ponds, wastewater treatment systems, or storage tanks. 	<ul style="list-style-type: none"> ▪ O&M IIPP
Working outdoors/ remote	<ul style="list-style-type: none"> ▪ Personnel injury resulting from working alone and/or in a remote area. ▪ Personnel injury and/or property damage resulting from lightning strikes during a storm. 	<ul style="list-style-type: none"> ▪ O&M IIPP ▪ O&M PPE Program
Biological hazards	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage resulting from wildfire hazards. ▪ Personnel injury resulting from exposure to flora/fauna. ▪ Exposure to COVID-19 or other pathogens. 	<ul style="list-style-type: none"> ▪ O&M IIPP ▪ O&M PPE Program ▪ Emergency Action Plan
Gaseous/liquid hydrogen storage	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage attributable to failure of hydrogen storage system components or unexpected release of hydrogen. 	<ul style="list-style-type: none"> ▪ O&M IIPP ▪ O&M PPE Program ▪ O&M Fire Protection and Prevention Plan ▪ Emergency Action Plan ▪ O&M HMBP

Activity	Hazard	Control Program
Battery energy storage systems	<ul style="list-style-type: none"> ▪ Personnel injury and/or property damage attributable to failure of battery energy storage system components. 	<ul style="list-style-type: none"> ▪ O&M IIPP ▪ O&M PPE Program ▪ O&M Fire Protection and Prevention Plan ▪ Emergency Action Plan ▪ O&M HMBP
Drone use	<ul style="list-style-type: none"> ▪ Personnel injury and property damage from drone collision or improper use. 	<ul style="list-style-type: none"> ▪ O&M IIPP ▪ Unmanned Aircraft System (UAS) certification

Source: CCR, OSHA Job Hazard Analysis

5.10.2.4 Training and Safety Programs

Health and safety programs identified in Table 5.10-1 and Table 5.10-2 would be developed to mitigate potential safety hazards from Project construction and O&M activities and to comply with applicable regulations. Each program and plan detailed in Table 5.10-1 and Table 5.10-2 would contain job-specific training requirements that would be translated into trainings for Project personnel, as applicable. For example, all Project O&M personnel would receive training in evacuation procedures under the Emergency Action Plan, but only those personnel working with flammables would receive training under the Fire Protection and Prevention Program.

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

Construction Health and Safety Programs

The following construction health and safety programs would be developed and implemented during Project construction. An outline of the key items to be included in each construction health and safety program is included below.

Construction Injury and Illness Prevention Program

In accordance with 8 CCR, § 1509, an IIPP would be developed, implemented, and maintained during Project construction. The Construction IIPP would include the following elements:

- Identification of the various parties and personnel responsible for implementing the program during construction activities
- Definition of a framework for Project personnel compliance with Project-specific and general safe and healthy work practices, including training and retraining programs, disciplinary actions, or other such means to promote Project personnel compliance with such practices
- Establishment of a chain of command for communicating in a clear and concise manner for all affected personnel, including provisions designed to encourage Project personnel to communicate hazards at the Project site
- Outline of procedures for identifying and evaluating workplace hazards, including but not limited to the following:
 - Physical Hazards
 - Use of motor vehicles, heavy equipment, forklifts, and cranes
 - Hot work and work with electrical equipment
 - Working outdoors, in remote locations, or near water
 - Exposure to pressurized systems
 - Trenching, excavation, and confined space entry
 - Working at elevation and overhead hazards
 - Chemical Hazards
 - Handling hazardous waste, flammable and/or combustible liquids, gaseous materials, explosives, and batteries

- Biological Hazards
- General construction hazards, including those encountered during inspections and/or maintenance activities
- Outline of procedures to investigate occupational injury or illness
- Outline of procedures for correcting unsafe or unhealthy conditions, work practices and procedures, and an emergency response protocol, including:
 - Procedures for reporting fires and other emergencies
 - Evacuation procedures and emergency escape route assignments, including evacuation areas and/or muster locations
 - Procedures for Project personnel who remain to operate critical plant operations before they evacuate
 - Establishment of a means for accounting for all Project personnel after an emergency evacuation
 - Rescue and medical duties performed by Project personnel
 - Identification of key persons to be contacted in the event of evacuation or other emergencies
 - Description of alarm systems that would notify Project personnel to evacuate or take other actions
 - Establishment of the site of an alternative communications center to be used in the event of a fire or explosion
 - Identification of a secure location for storage of original or duplicate copies of important records
- Identification of training and instruction required under the Construction IIPP, including framework for who receives training and when training is implemented
- Outline of procedures to allow Project personnel access to the program
- Establishment of procedures for recordkeeping and documentation

Construction Fire Protection and Prevention Program

In accordance with 8 CCR, § 1920, a Fire Protection and Prevention Program would be developed and implemented during Project construction. The Construction Fire Protection and Prevention Program would include the following elements:

- A list of applicable standards and publications
- A map showing the Project site, including layout, ingress, egress, drainage and grading, potential ignition sources during various phases of construction, and evacuation areas and/or muster locations
- A description of fire protections that would be implemented during construction activities, including water systems, gaseous agent systems, and fire extinguishers
- A description of detection and alarm systems that would be implemented during construction activities
- A list of all major fire hazards, including but not limited to:
 - Chemical fire hazards such as hydrogen, oxygen, nitrogen, and diesel

- Physical fire hazards such as electrical equipment, heavy equipment and motor vehicles, and wildfire
- An outline of procedures to control accumulation of flammable and combustible waste materials
- An outline of procedures for regular maintenance of safeguards installed on heat-producing equipment to prevent or control sources of ignition or fires
- Identification of Project personnel responsible for the control of fuel source hazards

Construction Personal Protective Equipment Program

In accordance with 8 CCR, § 1514 - 1522, a PPE Program would be developed and implemented during Project construction. The Construction PPE Program would include the following elements:

- Identification of physical and health hazards specific to Project construction
- Outlines appropriate and adequate PPE for Project personnel for the specific work to be conducted at the Project
- Outline of training on the use, inspection, storage, cleaning, and limitations of the PPE
- Outline of training on the maintenance of PPE, including replacing worn or damaged PPE
- Establishment of periodic reviews to update and evaluate the effectiveness of the PPE Program

Construction Helicopter Use Plan

Helicopters would be used for wire stringing activities including hanging travelers, pulling conductor and optical ground wire, dead-end activities, and the installation of bird diverters. The Helicopter Use Plan would include the following elements:

- A list of Federal Aviation Administration (FAA) regulations and requirements, including pilot qualifications, aircraft worthiness, and use of FAA-approved practices and equipment
- A description of the facilities that would be utilized for helicopter use (i.e., approved landing areas, refueling station, and hangar location)
- An outline of general helicopter usage specific to the Project
- An outline of the duration of helicopter use
- A description of helicopter-based construction activities
- Establishment of rigging and hauling requirements
- An outline of operational control of flight management
- Identification of the flight path

In the case that alternative ground-based construction activities may be utilized, a Helicopter Use Plan would not be prepared.

Construction Hazardous Materials Business Plan

A Construction HMBP would be prepared for submittal to Fresno County Environmental Health Certified Unified Program Agency (CUPA)/Hazardous Materials Compliance Program in accordance with the conditions of the CUPA. The HMBP would contain detailed information pertaining to the inventory of hazardous materials at the Project site, emergency response plans and procedures to be followed in the event of a reportable release during construction activities, and training requirements. This plan is detailed in Section 5.9, *Hazardous Materials Handling*.

Construction Spill Prevention, Control, and Countermeasure Plan

In accordance with Section 311 of the Clean Water Act (CWA), a SPCC plan is required if oil is stored in a single above ground storage tank with capacity greater than 660 gallons or if the total amount of petroleum storage is greater than 1,320 gallons. An SPCC would be prepared to describe the measures to be implemented to prevent oil discharges from occurring during construction activities. This plan is detailed in Section 5.9, *Hazardous Materials Handling*.

Construction Soil Management Plan

A Soil Management Plan (SMP) was prepared by Stantec for the purpose of providing protocols for the proper management of unknown impacts to soil or undocumented subsurface features potentially encountered at the Project site during grading and construction activities (Stantec 2023). The SMP outlines procedures for identifying, testing, handling, and disposing of soil containing regulated constituents that may be encountered during construction activities. Implementation of the procedures in the SMP would minimize risk to construction personnel through the identification of any previously-unidentified area of potentially contaminated soil or subsurface structure containing potential chemical contaminants and management of such soil in a manner that is protective of human health and the potential environmental liability of the owner, and in general compliance with applicable federal, state, and local regulations.

O&M Health and Safety Programs

Upon completion of construction and commencement of O&M activities at Project facilities, the construction health and safety programs would transition into an operation-oriented program reflecting the hazards and controls necessary during O&M activities. An outline of the key items to be included in each operations health and safety program is included below.

O&M Injury and Illness Prevention Program

In accordance with 8 CCR, § 3203, an IIPP would be developed, implemented, and maintained during Project O&M activities. The O&M IIPP would include the following elements:

- Identification of the various parties and personnel responsible for implementing the program during O&M activities
- Definition of a framework for Project personnel compliance with Project-specific and general safe and healthy work practices, including training and retraining programs, disciplinary actions, or other such means to promote Project personnel compliance with such practices
- Establishment of a chain of command for communicating in a clear and concise manner for all affected personnel, including provisions designed to encourage Project personnel to communicate hazards at the Project site
- Outline of procedures for identifying and evaluating workplace hazards, including but not limited to the following:
 - Physical Hazards
 - Use of motor vehicles, heavy equipment, forklifts, and cranes
 - Hot work and work with electrical equipment
 - Working outdoors, in remote locations, or near water
 - Exposure to pressurized systems

- Trenching, excavation, and confined space entry
 - Working at elevation and overhead hazards
- Chemical Hazards
 - Handling hazardous waste, flammable and/or combustible liquids, gaseous materials, explosives, and batteries
- Biological Hazards
- Outline of procedures to investigate occupational injury or illness
- Outline of procedures for correcting unsafe or unhealthy conditions, work practices and procedures, and an emergency response protocol, including:
 - Procedures for reporting fires and other emergencies
 - Evacuation procedures and emergency escape route assignments, including evacuation areas and/or muster locations
 - Procedures for Project personnel who remain to operate critical plant operations before they evacuate
 - Establishment of a means for accounting for all Project personnel after an emergency evacuation
 - Rescue and medical duties performed by Project personnel
 - Identification of key persons to be contacted in the event of evacuation or other emergencies
 - Description of alarm systems that would notify Project personnel to evacuate or take other actions
 - Establishment of the site of an alternative communications center to be used in the event of a fire or explosion
 - Identification of a secure location for storage of original or duplicate copies of important records
- Identification of training and instruction required under the O&M IIPP, including framework for who receives training and when training is implemented
- Outline of procedures to allow Project personnel access to the program
- Establishment of procedures for recordkeeping and documentation

O&M Fire Protection and Prevention Program

In accordance with 8 CCR, § 3221, a Fire Protection and Prevention Program would be developed and implemented during Project O&M activities. The O&M Fire Protection and Prevention Program would include the following elements:

- A list of applicable standards and publications
- A map showing the Project site, facilities, ingress, egress, potential ignition sources, and evacuation areas and/or muster locations
- A description of fire protections that would be implemented during O&M activities, including permanent water systems, gaseous agent systems, and fire extinguishers
- A description of detection and alarm systems that would be implemented during O&M activities

- A list of all major fire hazards, including but not limited to:
 - Chemical fire hazards such as hydrogen, oxygen, nitrogen, and diesel
 - Physical fire hazards such as electrical equipment, heavy equipment and motor vehicles, and wildfire
- An outline of procedures to control accumulation of flammable and combustible waste materials
- An outline of procedures for regular maintenance of safeguards installed on heat-producing equipment to prevent or control sources of ignition or fires
- Identification of Project personnel responsible for the control of fuel source hazards
- An outline of procedures to respond to wildland and grass fires within the Project vicinity or Project site.

In addition, the Project-specific Fire Protection Philosophy (Appendix P) for the hydrogen facility would be incorporated into the Project's overall program.

O&M Personal Protective Equipment Program

In accordance with 8 CCR, § 3401 - 3411, a PPE Program would be developed and implemented during Project O&M activities. The O&M PPE Program would include the following elements:

- Identification of physical and health hazards specific to the workplace
- Outline of appropriate and adequate PPE for Project personnel for the specific O&M activities to be conducted at the Project site
- Outline of training on the use, inspection, storage, cleaning, and limitations of the PPE
- Outline of training on the maintenance of PPE, including replacing worn or damaged PPE
- Establishment of periodic reviews to update and evaluate the effectiveness of the PPE Program

O&M Emergency Action Plan

In accordance with 8 CCR, § 3220, an Emergency Action Plan would be developed and implemented during Project O&M activities. The O&M Emergency Action Plan would include the following elements:

- An outline of procedures for reporting fires and other emergencies
- Establishment of procedures for emergency evacuation, including evacuation type and exit routes
- An outline of procedures for Project personnel who remain to operate critical plant operations before they evacuate
- Establishment of a means for accounting for all Project personnel after an emergency evacuation
- An outline of rescue and medical duties if performed by Project personnel
- Identification of key persons to be contacted in the event of evacuation or other emergencies
- Alarm systems intended to notify Project personnel to evacuate or take other actions
- Description of the site of an alternative communications center to be used in the event of a fire or explosion
- Identification of a secure location for storage of original or duplicate copies of important records

O&M Hazardous Materials Business Plan

An HMBP would be prepared for submittal to Fresno County Environmental Health CUPA/Hazardous Materials Compliance Program in accordance with the conditions of the CUPA. The HMBP would contain detailed information pertaining to the inventory of hazardous materials at the Project site, emergency response plans and procedures to be followed in the event of a reportable release during O&M activities, and training requirements. This plan is detailed in Section 5.9, *Hazardous Materials Handling*.

O&M Spill Prevention, Control, and Countermeasure Plan

In accordance with Section 311 of the CWA, an SPCC plan is required if oil is stored in a single above ground storage tank with capacity greater than 660 gallons or if the total amount of petroleum storage is greater than 1,320 gallons. An SPCC would be prepared describing the measures to be implemented to prevent oil discharges from occurring during Project O&M activities. This plan is detailed in Section 5.9, *Hazardous Materials Handling*.

O&M Unmanned Aircraft System Certification

Should drones be used for O&M activities, UAS Certification would be obtained from the FAA. Certification allows the FAA to manage risk and ensure that 14 Code of Federal Regulations (CFR) parts 47, 48, 89, and 107 UAS operating requirements are met. Most UAS obtain certification under the experimental category of the special airworthiness certificate. Standard airworthiness certificates require type certification in which the design and all components of the aircraft have been approved by the FAA. Given that most UAS do not have type certification, they must apply for special airworthiness certification. FAA Order 8130.34D establishes procedures for airworthiness certification of UAS and optionally piloted aircraft.

Decommissioning Health and Safety Programs

At the time of decommissioning, all decommissioning related activities would follow the then-applicable LORS. Decommissioning activities would require similar equipment and workforce as construction; therefore, the construction health and safety programs outlined above would be updated as needed and implemented.

Safety Training

Comprehensive safety training programs for Project construction and O&M activities would be required for Project personnel. Each of the safety procedures developed to control and mitigate potential site hazards would require training through a variety of methods, consistent with the requirements of California Division of Occupational Safety and Health (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. Table 5.10-3 summarizes the safety training programs that would be provided to Project construction personnel. Table 5.10-4 summarizes the safety training programs that would be provided to Project O&M personnel.

Table 5.10-3 Project Construction Training Program

Training Course	Target Project Personnel
Injury and Illness Prevention Training	All
PPE Training	All
Fire Protection and Prevention Training	Project personnel responsible for the handling and storage of flammable or combustible liquids or gases, operating heavy machinery, or performing hot work
HMBP	Project personnel responsible for the handling, storage, and disposal of hazardous materials
Helicopter Use Plan Training	All aircraft pilots, linemen, mechanics, and Project personnel working with or in the vicinity of aircraft

Source: Department of Industrial Relations, OSHA

Table 5.10-4 Project O&M Training Program

Training Course	Target Project Personnel
Injury and Illness Prevention Training	All
PPE Training	All
Fire Protection and Prevention Training	Project personnel responsible for the handling and storage of flammable or combustible liquids or gases, performing hot work, operating heavy machinery, or maintaining battery energy storage systems
Emergency Action Plan	All
Hazardous Waste Generator Training	Project personnel responsible for the handling, storage, and disposal of hazardous materials
Helicopter Use Plan Training	All aircraft pilots, linemen, mechanics, and Project personnel working with or in the vicinity of aircraft

Source: Department of Industrial Relations, OSHA

Fuel Handling and Fire Suppression

Chapter 2, *Project Description*, describes the Project’s fuel handling system and fire suppression system. Fire detection measures are intrinsically incorporated in the Project design in accordance with National Fire Protection Association safety standards. Should a thermal event occur, the BESS units are designed and certified so that fire would not propagate from one cabinet to the neighboring cabinet. Any exhaust created by a thermal event would be similar to a Class A Fire, which is a fire that consists of ordinary combustibles such as wood, paper, fabric, and plastic. In addition, electrolyte added to the cells during manufacturing is fully absorbed into the cell material and enclosed within the cell casing which eliminates the risk of material leaking from the cell even if water is applied for fire suppression.

The Project would also include multiple fire detection systems on-site and within the individual BESS units. The site would utilize infrared cameras for security and thermal deviation detection. In addition, each BESS unit contains an onboard battery management system that monitors the appropriate state of individual battery cells and relays information 24/7. In the event of an anomaly, the system is designed to remove power from the affected cells.

Pursuant to manufacturer specifications, the BESS units are fully certified to the most rigorous international safety standards. This includes the following select certifications:

- UL 1642 – Standard for Lithium Batteries (cell level certification)
- UL 1973 – Standard for Batteries for Use in Stationary Applications (module level certification)
- UL 9540 – Standard for Energy Storage Systems and Equipment (system level certification)
- UL 9540A – Standard for Inverters, Controllers, Converters, and Interconnection Equipment for DER
- IEC 62619 – Standard for Battery Safety in Stationary Applications

The Applicant has prepared a Fire Protection Philosophy (Appendix P) for the hydrogen facility, which provides guidelines for fire prevention, active fire protection, fire and gas detection and alarm systems, and personnel safety measures. Active fire protection systems would be implemented for the green hydrogen facility to provide means of extinguishing fire, provide equipment and structures and limit fire escalation by controlling the fire, and limit the effects of a fire and allow safe emergency escape, evaluation, and rescue activities. Active fire protection systems described in Appendix P include:

- Fire water systems
- Gaseous agent systems
- Fire extinguishers

Additionally, the Health and Safety Element of the Fresno County General Plan requires new development to implement water systems that meet County flow requirements. Where minimum fire flow is not available to meet County standards, alternate fire protection measures, including sprinkler systems, would be incorporated into the Project, as approved by the appropriate fire protection agency (Policy HS-B.11).

Fresno County Fire Protection District (FCFPD) provides a full range of emergency response services including, but not limited to, structural fire suppression, wildland fire suppression, response to hazardous materials incidents, and life support medical services to the Project area (FCFPD 2023). The closest fire station to the Project site is FDFPD Station 95, located approximately eight miles north at 25101 West Morton Avenue in the community of Tranquility.

5.10.3 Laws, Ordinances, Regulations, and Standards

The LORS that may apply to the Project related to worker safety are summarized in Table 5.10-5. Table 5.10-5 also provides a summary of the applicable national consensus standards.

Table 5.10-5 LORS Applicable to Worker Health and Safety

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
Federal	29 CFR Part 1910	Contains the minimum occupational safety and health standards for general industry in the United States	Throughout this Opt-In Application	The Project would implement occupational safety and health protocols during construction, operation, and decommissioning activities in compliance with 29 CFR Part 1910
Federal	29 CFR Part 1926	Contains the minimum occupational safety and health standards for the construction industry in the United States	Throughout this Opt-In Application	The Project would implement occupational safety and health protocols during construction, operation, and decommissioning activities in compliance with 29 CFR Part 1926
Federal	National Institute for Occupational Safety and Health (NIOSH)	Conducts research and makes recommendations for prevention of work-related injury and illness	Throughout this Opt-In Application	The Project would comply with the health and safety requirements set forth by NIOSH
Federal	American National Standards Institute (ANSI) / American Society of Mechanical Engineers (ASME), Boiler and Pressure Vessel Code	Specifications and requirements for pressure vessels	Throughout this Opt-In Application	The use of pressure vessels associated with the Project would comply with the requirements set forth in the Boiler and Pressure Vessel Code
Federal	ANSI/ASME, B31.2	Specifications and requirements for fuel gas piping	Throughout this Opt-In Application	The Project would comply with the requirements for fuel gas piping set forth in American National Standards Institute, B31.2
Federal	29 CFR Part 1910	Outlines procedures for employees in the event of an emergency	Section 5.10, <i>Worker Safety</i> Section 5.9, <i>Hazardous Materials Handling</i>	The Project would comply with the requirements set forth in 29 CFR Part 1910 to prepare an Emergency Action Plan
State	California HSC § 25500, et seq. And the related regulations of 19 CCR 2620 et seq.	Outlines identified hazardous materials, emergency response procedures for releases of hazardous materials, and training requirements	Section 5.10, <i>Worker Safety</i> Section 5.11, <i>Waste Management</i> Section 5.9, <i>Hazardous Materials Handling</i>	The Project would implement a Hazardous Materials Business Plan to comply with California HSC 25500
State	California Occupational Safety and Health Act of 1973	Establishes minimum safety and health standards for construction and general industry operations in California	Throughout this Opt-In Application	The Project would implement occupational safety and health protocols during construction, operation, and decommissioning activities in compliance with the California Occupational Safety and Health Act of 1973

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
State	8 CCR § 339	Requires list of hazardous chemicals relating to the Hazardous Substance Information and Training Act	Section 5.9, <i>Hazardous Materials Handling</i> Section 5.11, <i>Waste Management</i>	Hazardous chemicals stored at the facility would be reported in accordance with the requirements set forth in 8 CCR § 339
State	8 CCR § 450	Addresses hazards associated with pressurized vessels	Section 5.9, <i>Hazardous Materials Handling</i>	Design, construction, installation, inspection, operation, and repair activities applying to compressed and liquefied natural gas or air tanks would be conducted in compliance with the requirements set forth in 8 CCR § 450
State	8 CCR § 750	Addresses hazards associated with high-pressure steam	Section 5.9, <i>Hazardous Materials Handling</i>	Design, construction, installation, inspection, operation, and repair activities applying to pressurized vessels would be conducted in compliance with the requirements set forth in 8 CCR § 750
State	8 CCR, Construction Safety Orders, § 1500	Establishes safety orders for construction work	Throughout this Opt-In Application	Construction activities would comply with the applicable requirements set forth in 8 CCR § 1500
State	8 CCR § 1509	Addresses requirements for construction, accident, and prevention plans	Throughout this Opt-In Application	An IIPP would be prepared and implemented for Project construction activities in compliance with 8 CCR § 1509
State	8 CCR § 1528, et seq., and § 3380, et seq.	Requirements for PPE	Section 5.7, <i>Air Quality</i> Section 5.9, <i>Hazardous Materials Handling</i>	Respiratory protection would be required under circumstances defined in 8 CCR § 1528, et seq., and § 3380, et seq. When required, respiratory protection would comply with 8 CCR § 1528, et seq., and § 3380, et seq.
State	8 CCR § 1597, et seq., and § 1590, et seq.	Requirements addressing the hazards associated with traffic accidents and earthmoving	Section 5.4, <i>Traffic and Transportation</i>	Vehicle usage during construction, operation, and decommissioning activities associated with the Project would comply with the requirements set forth in 8 CCR § 1597, et seq., and § 1590, et seq.
State	8 CCR § 1604, et seq.	Requirements for construction hoist equipment	Throughout this Opt-In Application	The use of personnel hoists during construction and maintenance activities associated with the Project would comply with the requirements set forth in 8 CCR § 1604, et seq.

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
State	8 CCR § 1620, et seq., and § 1723, et seq.	Addresses miscellaneous hazards	Throughout this Opt-In Application	Construction of roofing and railings associated with temporary and permanent structures at the Project site would comply with the requirements set forth in 8 CCR § 1620, et seq., and § 1723, et seq.
State	8 CCR § 1709, et seq.	Requirements for steel reinforcing, concrete pouring, and structural steel erection operations	Throughout this Opt-In Application	Construction of facilities associated with the Project would comply with the requirements set forth in 8 CCR § 1709, et seq.
State	8 CCR § 1900, et seq.	Requirements for use of helicopters	Section 5.4, <i>Traffic and Transportation</i>	Helicopter usage associated with construction activities at the Project site would comply with the requirements set forth in 8 CCR § 1900, et seq.
State	8 CCR § 1920, et seq.	Requirements for fire protection systems	Throughout this Opt-In Application	A Fire Protection and Prevention Plan would be prepared for both construction and O&M activities associated with the Project that would comply with the requirements set forth in 8 CCR § 1920, et seq.
State	8 CCR, Electrical Safety Orders § 2300, et seq., and § 2320, et seq.	Requirements for addressing low-voltage electrical hazards	Throughout this Opt-In Application	Electrical equipment used during construction, operation, and decommissioning activities would be operated in compliance with the requirements set forth in 8 CCR § 2300, et seq., and § 2320, et seq.
State	8 CCR § 2395, et seq.	Addresses electrical installation requirements	Throughout this Opt-In Application	Electrical equipment connected by cord and plug used during construction, operation, and decommissioning activities would be operated in compliance with the requirements set forth in 8 CCR § 2395, et seq.
State	8 CCR § 2700, et seq.	Addresses high-voltage electrical hazards	Throughout this Opt-In Application	High voltage electrical equipment used during construction, operation, and decommissioning activities would be operated in compliance with the requirements set forth in 8 CCR § 2700, et seq.

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
State	8 CCR, § 5139, et seq.	Requirements for control of hazardous substances	Section 5.7, <i>Air Quality</i> Section 5.9, <i>Hazardous Materials Handling</i>	Handling of hazardous substances during construction, operation, and decommissioning of the Project would comply with the requirements set forth in 8 CCR § 5139, et seq.
State	8 CCR, General Industry Safety Orders § 3200, et seq.	Requirements for control of hazardous substances	Throughout this Opt-In Application	Handling of hazardous substances during construction, operation, and decommissioning of the Project would comply with the requirements set forth in 8 CCR § 3200, et seq.
State	8 CCR § 3203, et seq.	Requirements for operational accident prevention programs	Throughout this Opt-In Application	An IIPP would be prepared and implemented for O&M activities associated with the Project in compliance with 8 CCR § 3203
State	8 CCR § 3270, et seq.	Requirements for the use of compressed air or gases	Section 5.9, <i>Hazardous Materials Handling</i>	The use of compressed air or gases during construction, operation, or decommissioning of the Project would comply with the requirements set forth in 8 CCR § 3270, et seq.
State	8 CCR § 3209, et seq.	Requirements for evacuation plans and procedures	Throughout this Opt-In Application	Evacuation procedures associated with Project activities would comply with the requirements set forth in 8 CCR § 3209, et seq.
State	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	Section 5.9, <i>Hazardous Materials Handling</i>	The use of compressed air or gases during construction, operation, or decommissioning of the Project would comply with the requirements set forth in 8 CCR § 3301, et seq.
State	8 CCR § 3360, et seq.	Addresses requirements for sanitary conditions	Throughout this Opt-In Application	Access to sanitary facilities would be provided during construction, operation, and decommissioning of the Project and facilities would comply with the requirements set forth in 8 CCR § 3360, et seq.

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
State	8 CCR § 3511, et seq., and § 3555, et seq.	Requirements for addressing hazards associated with stationary engines and compressors, as well as portable, pneumatic, and electrically powered tools	Throughout this Opt-In Application	The usage of stationary engines and compressors associated with the Project would comply with the requirements set forth in 8 CCR § 3511, et seq., and § 3555, et seq.
State	8 CCR § 3649, et seq., and § 3700, et seq.	Requirements for addressing hazards associated with field vehicles	Throughout this Opt-In Application	The Project would comply with the requirements set forth in 8 CCR § 3649, et seq., and § 3700, et seq.
State	8 CCR § 3940, et seq.	Requirements for addressing hazards associated with power transmission, compressed air, and gas equipment	Throughout this Opt-In Application	Power transmission associated with the Project would comply with the requirements set forth in 8 CCR § 3940, et seq.
State	8 CCR § 5095, et seq.	Requirements for controlling noise exposure	Section 5.3, <i>Noise</i>	Noise exposure would be controlled in compliance with the requirements set forth in 8 CCR § 5095, et seq.
State	8 CCR § 5109, et seq.	Requirements for addressing construction accident and prevention programs	Throughout this Opt-In Application	The IIPP prepared for the Project would include provisions related to construction accident and prevention programs and would comply with the requirements set forth in 8 CCR § 5109, et seq.
State	8 CCR § 5110, et seq.	Requirements for the implementation of an ergonomics program	Throughout this Opt-In Application	The IIPP prepared for the Project would include provisions related to ergonomics and would comply with the requirements set forth in 8 CCR § 5110, et seq.
State	8 CCR § 5139, et seq.	Requirements for employee exposure to dusts, fumes, mists, vapors, and gases	Section 5.3, <i>Noise</i>	The IIPP prepared for the Project would include provisions related to dust, fumes, mists, vapors, and gases and would comply with the requirements set forth in 8 CCR § 5139, et seq.
State	8 CCR § 5139, et seq.	Requirements for addressing hazards associated with welding, sandblasting, grinding, and spray-coating	Throughout this Opt-In Application	Welding, sandblasting, grinding, and spray-coating activities associated with the Project would comply with the requirements set forth in 8 CCR § 5139, et seq.

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
State	8 CCR § 5156, et seq.	Requirements for confined space entry	Throughout this Opt-In Application	Confined space entry that would occur in association with the Project would comply with the requirements set forth in 8 CCR § 5156, et seq.
State	8 CCR § 5155, et seq.	Requirements for use of respirators and for controlling employee exposure to airborne contaminants	Throughout this Opt-In Application	Employee exposure to airborne contaminants would be minimized through the use of respirators in compliance with the requirements set forth in 8 CCR § 5155, et seq.
State	8 CCR § 5160, et seq.	Requirements for addressing hot, flammable, poisonous, corrosive, and irritant substances	Throughout this Opt-In Application	Hot, flammable, poisonous, corrosive, and/or irritant substances used during construction, operation, maintenance, or decommissioning activities associated with the Project would comply with the requirements set forth in 8 CCR § 5160, et seq.
State	8 CCR § 5184 and § 5185	Requirements for storage battery systems and charging storage batteries	Throughout this Opt-In Application	Storage battery systems associated with the Project would comply with the requirements set forth in 8 CCR § 5184 and § 5185
State	8 CCR § 5192, et seq.	Requirements for conducting emergency response procedures	Throughout this Opt-In Application	Emergency response procedures would be included in the IIPP prepared for the Project and would be developed and implemented in compliance with the requirements set forth in 8 CCR § 5192, et seq.
State	8 CCR § 5193, et seq.	Requirements for controlling employee exposure to bloodborne pathogens associated with exposure to raw sewage water and bodily fluids associated with first aid/cardiopulmonary resuscitation (CPR) duties	Throughout this Opt-In Application	Exposure to bloodborne pathogens would be controlled through implementation of requirements set forth in 8 CCR § 5193, et seq.

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
State	8 CCR § 5405, et seq.; § 5426, et seq.; § 5465 et seq.; § 5500, et seq.; § 5530, et seq.; § 5531, et seq.; § 5545, et seq.; § 5554, et seq.; § 5565, et seq.; § 5583, et seq.; § 5606, et seq.	Requirements for flammable liquids, gases, and vapors	Section 5.9, <i>Hazardous Materials Handling</i>	Use of flammable liquids, gases, and vapors associated with the Project would comply with the requirements set forth in 8 CCR § 5405, et seq., § 5426, et seq., § 5465, et seq., § 5500, et seq., § 5530, et seq., § 5531, et seq., § 5545, et seq., § 5554, et seq., § 5565, et seq., § 5583, et seq., § 5606, et seq.
State	8 CCR § 5583, et seq.	Requirements for design, construction, and installation of venting, diking, valving, and supports	Throughout this Opt-In Application	Design, construction, and installation of venting, diking, valving, and supports associated with flammable liquids, gases, and vapors would comply with the requirements set forth in 8 CCR § 5583, et seq.
State	8 CCR § 6150, et seq.; § 6151, et seq.; § 6165, et seq.; § 6170, et seq.; § 6175, et seq.; § 6183, et seq.; § 6184, et seq.	Requirements for fire protection	Throughout this Opt-In Application	A Fire Prevention and Protection Plan would be developed in compliance with the requirements set forth in 8 CCR § 6150, et seq.; § 6151, et seq.; § 6165, et seq.; § 6170, et seq.; § 6175, et seq.; § 6183, et seq.; § 6184, et seq.
State	24, Part 3, California Electrical Code	Requirements for electrical safety, which include the Uniform Electrical Code, Title 24, Part 3	Throughout this Opt-In Application	Electrical work associated with the Project would comply with the requirements set forth in the California Electrical Code, Title 24, Part 3
State	24, Part 9, California Fire Code, Chapter 12, § 1205 through § 1207	Requirements for solar photovoltaic power systems, stationary fuel cell power systems, and electrical energy storage systems (ESS)	Throughout this Opt-In Application	The Project would comply with the requirements for photovoltaic power systems and energy storage systems set forth in the California Fire Code, Title 24, Part 9, Chapter 12, Sections § 1205 through § 1207
State	California Health and Safety Code (HSC) § 25500 through § 25541	Requirements for the preparation of a HMBP that details emergency response plans for a hazardous materials emergency at the facility	Section 5.9, <i>Hazardous Materials Handling</i>	An HMBP would be prepared in accordance with HSC Sections § 25500 through § 25541

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
Local	Fresno County General Plan Policy HS A.1-HS-A.4	Outlines policies, standards, and programs to related to emergency management and response.	<ul style="list-style-type: none"> ▪ Section 5.10.3.3 ▪ Section 5.10.3.4 	The Project would include preparation and implementation of an Emergency Action Plan during construction and O&M activities that would be consistent with these General Plan policies.
Local	Fresno County General Plan Policy HS B.1-HS-B.13	Outlines policies, standards, and programs to related to fire hazards.	<ul style="list-style-type: none"> ▪ Section 5.10.3.3 ▪ Section 5.10.3.4 	The Project would include preparation and implementation of Fire Protection and Prevention Plans during construction and O&M activities that would be consistent with these General Plan policies.
Local	Fresno County General Plan Policy HS F.1-HS-F.8	Outlines policies, standards, and programs to related to hazardous materials.	Section 5.9, <i>Hazardous Materials Handling</i>	The Project’s conformity with these policies is discussed in Section 5.9, <i>Hazardous Materials Handling</i> .
Local	Fresno County General Plan Policy HS G.1-HS-G.9	Outlines policies, standards, and programs to related to noise.	Section 5.3, <i>Noise</i>	The Project’s conformity with these policies is discussed in Section 5.3, <i>Noise</i> .
Local	Fresno County Code of Ordinances, Title 8	Establishes minimum health and safety standards for Fresno County	Throughout this Opt-In Application	The Project would conform with the health and safety requirements set forth in the Fresno County Code of Ordinances, Title 8
Local	Fresno County Code of Ordinances, Title 15	Establishes minimum building and construction standards for Fresno County	Section 5.10, <i>Worker Safety</i> Section 5.11, <i>Waste Management</i> Section 5.16, <i>Geological Hazards and Resources</i> Section 5.9, <i>Hazardous Materials Handling</i>	The Project would conform with the requirements set forth in the Fresno County Code of Ordinances, Title 15

Source: Code of Federal Regulations, California Occupational Safety and Health Act of 1973, CCR, California Health and Safety Code, American National Standards Institute/American Society of Mechanical Engineers

5.10.3.1 *Federal LORS*

Title 29 CFR 1910 and 1926

These sections contain requirements to protect worker health and safety in the general industry and construction industry. These regulations also address requirements to protect workers in emergency situations. They are designed primarily to protect worker health, but also contain requirements that affect general workplace safety. The California regulations contained in Title 8 (California equivalent of 29 CFR) are generally more stringent than those contained in Title 29. The administering agencies for the above authority are Federal and State OSHA and Cal/OSHA, respectively.

NIOSH

NIOSH was established by the Occupational Safety and Health Act of 1970. NIOSH aims to study worker health and safety to continually improve workplace practices.

ANSI/ASME Boiler and Pressure Vessel Code

The Boiler and Pressure Vessel Code was established as a result of boiler and pressure vessel failures, causing injury and loss of life to employees in the workplace. This code regulates the manufacturing, construction, and operation of boilers and pressure vessels in order to protect worker health and safety.

ANSI B31.2 Fuel Gas Piping

This Code regulates the design, fabrication, installation, and testing of piping for fuel gases such as natural gas, manufactured cured gas, liquefied petroleum gas (LPG)-air mixtures above the upper combustible limit, LPG in the gaseous phase, or mixtures of these gases. This Code applies to fuel gas piping systems both in buildings and between buildings.

Emergency Action Plan

As required by 29 CFR 1910, an employer must have an Emergency Action Plan whenever an OSHA standard in Part 1910 requires one. The Emergency Action Plan must be in writing, kept in the workplace, and available to employees for review, unless there are 10 or fewer employees. The Emergency Action Plan must contain procedures for reporting, procedures for emergency evacuation, procedures for employees who remain for critical plant operations, procedures to account for employees following evacuation, procedures if rescue and medical duties are required, and identified persons who can provide more information to employees.

5.10.3.2 *State LORS*

California Occupational Safety and Health Act of 1973

The California Occupational Safety and Health Act of 1973 was enacted by California legislature to assure safe and healthy working conditions for all California employees. This Act created Cal/OSHA to enforce standards and provide education, training, and research in occupational safety and health.

CCR

The CCR contains applicable worker health and safety regulations. Sections of the CCR address hazards including, but not limited to hazardous materials, pressure vessels, construction work, helicopters, electrical systems, equipment, noise, ergonomics, and fires. These sections also outline requirements for programs, procedures, and plans to mitigate injury and/or property damage that can result from these hazards. The relevant sections of the CCR include, but are not limited to:

- Title 8 – Industrial Relations
- Title 24 Part 3 – California Electrical Code
- Title 24 Part 9 – California Fire Code

California Health and Safety Code, Sections 25500 – 25541

The California Health and Safety Code, Sections 25500 through 25541 requires local governments to regulate local business storage of hazardous materials in excess of certain quantities. The law also requires that entities storing hazardous materials be prepared to respond to releases. Those using and storing hazardous materials are required to submit an HMBP to their local CUPA and to report releases to their CUPA and the State Office of Emergency Services.

Hazardous Materials Business Plan

The designated CUPA for the Project is the Fresno County Environmental Health Department. The Hazardous Materials Compliance Program oversees the state-mandated programs in Fresno County. The Hazardous Materials Business Plan fulfills the requirements of the California Health and Safety Code, Sections 25500, et seq., and the related regulations of 19 CCR 2620 et seq.

5.10.3.3 *Local LORS*

Fresno County General Plan

California Senate Bill 271 Assembly Bill 2038 required that counties and cities adopt General Plan policies regarding natural hazards. The County of Fresno's General Plan provides direction and resources intended to mitigate death, injuries, and environmental and economic damage. The Fresno County General Plan contains several policies that are applicable to worker health and safety, including, but not limited to:

- **Policies HS-A.1 through HS-A.4 – Emergency Management and Response:** To protect public health and safety by preparing for, responding to, and recovering from the effects of natural or technological disasters.
- **Policies HS-B.1 through HS-B.13 – Fire Hazards:** To minimize the risk of loss of life, injury, and damage to property and natural resources from fire hazards.
- **Policies HS-F.1 through HS-F.8 – Hazardous Materials:** To minimize the risk of loss of life, injury, serious illness, and damage to property resulting from the use, transport, treatment, and disposal of hazardous materials and hazardous wastes.
- **Policies HS-G.1 through HS-G.9 – Noise:** To protect residential and other noise-sensitive uses from exposure to harmful or annoying noise levels; to identify maximum acceptable noise levels compatible with various land use designations; and to develop a policy framework necessary to achieve and maintain a healthful noise environment.

Fresno County Code of Ordinances

The Fresno County Code of Ordinances (County Code) includes requirements related to worker health and safety. Title 8 – Health and Safety and Title 15 – Building and Construction contain general and construction health requirements to reduce hazard potential to employees. These include, but are not limited to:

- **Combustible Substances and Smoking Restrictions – Chapter 8.32.** To regulate the accumulation of combustible materials and smoking in specified areas to minimize the risk of fire hazards.
- **Noise Control – Chapter 8.40:** To regulate noise levels to protect public health, welfare, and safety and warn of the hazards of excessive noise.
- **Fire Code – Chapter 15.10:** The County Code adopts the California Fire Code with specific edits
- **Electrical Code – Chapter 15.16:** The County Code adopts the California Electrical code with specific edits.

5.10.4 Agencies and Agency Contact

Applicable agency contacts for worker health and safety and fire protection and prevention-related approvals are shown in Table 5.10-6.

Table 5.10-6 Agency Contacts for Worker Health and Safety

Issue	Agency	Contact
Worker Health and Safety	Cal/OSHA, Region 2, Fresno District Office	William Estakhri Regional Manager 2550 Mariposa Street, Rm 4000 Fresno, CA 93721 (916) 263-2803
CUPA for HMBP and Risk Management Plan (RMP)	Fresno County Environmental Health – Hazardous Materials Compliance Program	Matthias Bier-Stanberry County-Wide Safety Officer 1221 Fulton Street Fresno, CA 93775 (559) 600-1850
Emergency Response for Hazardous Materials Spills and Fires	Fresno County, Office of Emergency Services	(559) 600-4065 OES@fresnocountyca.gov
Fire Hazards	Fresno County Fire Protection District	(559) 493-4300
Hazardous Materials and Noise	Fresno County, Department of Community Health	(559) 600-3200

Source: Fresno County Environmental Hazardous Materials Compliance Program

5.10.5 Permits and Permit Schedule

Applicable permits and permit schedule related to worker health and safety are shown in Table 5.10-7.

Table 5.10-7 Permits and Permit Schedule for Worker Health and Safety

Permit	Schedule	Status
Trenching and Excavation Permit	Submittal to any Cal/OSHA district or field office prior to commencing construction and at least 24 hours prior to initiation of activities.	To be submitted
HMBP	Submittal at least 30 days prior to operation, and submitted through California Environmental Reporting System (CERS). Permit fees are paid to Fresno County Environmental Health Hazardous Materials Compliance Program.	To be submitted
RMP	Submittal at least 30 days prior to operation, and submitted through CERS. Permit fees are paid to Fresno County Environmental Health Hazardous Materials Compliance Program.	To be submitted
Tower Crane Permit	Submittal to any Cal/OSHA district or field office at least 24 hours prior to initiation of activities. Permit fees are paid to Department of Industrial Relations.	To be submitted
Pressure Vessel Permit	Submittal to any Cal/OSHA district or field office prior to initiating activities. Permit fees are paid to Department of Industrial Relations.	To be submitted

Sources: Fresno County Environmental Hazardous Materials Compliance Program, Department of Industrial Relations

5.10.6 References

- American Society of Mechanical Engineers. ASME Boiler and Pressure Vessel Code (BPVC).
<https://www.asme.org/codes-standards/bpvc-standards> (accessed on August 18, 2023).
- American National Standards Institute. ASME B31.2 - Fuel Gas Piping.
<https://webstore.ansi.org/standards/asme/asmeb311968> (accessed on August 17, 2023).
- California Code of Regulations. Title 8 Industrial Relations.
- California Health and Safety Code. Division 20 Chapter 6.95 Hazardous Materials Release Response Plans and Inventory.
- Code of Federal Regulations. Title 29 Part 1910 Occupational Safety and Health Standards.
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- County of Fresno. Code of Ordinances.
https://library.municode.com/ca/fresno_county/codes/code_of_ordinances (accessed on August 15, 2023).
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<https://www.fresnocountyca.gov/files/sharedassets/county/vision-files/files/18117-2000-general-plan-policy-document.pdf>
- _____. Hazardous Waste Generator Program.
<https://www.fresnocountyca.gov/Departments/Public-Health/Environmental-Health/Hazardous-Materials-Business-Plans/Hazardous-Wastes#:~:text=Fresno%20County%20HazMat%20Compliance%20implements%20the%20Hazardous%20Waste,businesses%20are%20properly%20handled%2C%20recycled%2C%20stored%20and%20disposed.> (accessed on August 18, 2023).
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<https://www.fresnocountyca.gov/Departments/Public-Health/Environmental-Health/HazMat-Compliance-The-Designated-CUPA> (accessed on August 18, 2023).
- Department of Industrial Relations. 2020. Guide to Developing Your Workplace Injury & Illness Prevention Program. https://www.dir.ca.gov/dosh/dosh_publications/iipp.pdf (accessed on August 17, 2023).
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- Occupational Safety and Health Administration (OSHA). Emergency Action Plan – Minimum Requirements. <https://www.osha.gov/etools/evacuation-plans-procedures/eap/minimum-requirements> (accessed on August 17, 2023).
- _____. Emergency Standards – Fire Prevention Plan (FPP).
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