DOCKETED		
Docket Number:	24-OPT-03	
Project Title:	Soda Mountain Solar	
TN #:	257942	
Document Title:	Appendix Q Worker Safety Plan	
Description:	This worker safety plan summarizes the worker health and safety issues that may be encountered during construction and operation of the Project, as specified in Title 20, California Code of Regulations, Section 1704, Appendix B for worker safety.	
Filer:	: Hannah Gbeh	
Organization:	Resolution Environmental	
Submitter Role:	le: Applicant Consultant	
Submission Date:	7/22/2024 5:19:38 PM	
Docketed Date:	7/23/2024	

Worker Safety Plan

This worker safety plan summarizes the worker health and safety issues that may be encountered during construction and operation of the Soda Mountain Solar 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 2.1 contains a brief description of the work environment and setting. Section 2.2 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 2.3 presents laws, ordinances, regulations, and standards (LORS) applicable to worker safety. Section 2.4 identifies regulatory agency contacts. Section 2.5 describes permits required for the Project related to worker safety. Section 2.6 provides references for this section.

1.1 Environmental Setting

The Soda Mountain Solar Project (Project) will consist of the construction and operation of a 300megawatt photovoltaic solar facility, which will include a solar panel arrays, operation and maintenance buildings and infrastructure, stormwater infrastructure, a substation, a switchyard, and a battery energy storage system, disturbing approximately 2081 acres of the 2670-acre site. Project site is located in an unincorporated desert area of San Bernardino County south of the community of Baker, CA. San Bernardino County features a hot-summer Mediterranean climate (Csa Koppen climate classification) (Zimmerman, Berg, McVicar, Beck, 2018), with external working conditions in the summers being hot and arid with little to no cloud coverage and winter conditions being cool and generally partly cloudy. Typically, February is the month that experiences the highest average precipitation. According to the Applied Climate Information System, the highest normal daily temperature range for Baker, CA (15 miles from Project site) is 79 - 110°F, and occurs in late July, with a record maximum temperature of 124°F. The lowest normal daily temperature range for Baker, CA is 32 - 61°F, and occurs in late December, with a record minimum temperature of 13°F.

1.2 Hazards Analysis

1.2.1 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.

1.2.2 Impact Evaluation Criteria

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. This hazard analysis was completed primarily via consultation of two resources which include 1) OSHA 3071 Job Hazard Analysis Guidance (OSHA,

2002) and 2) Cal/OSHA Guide to Developing Your Workplace Injury and Illness Prevention Program (Cal/OSHA, n.d.). The OSHA Job Hazard Analysis Guidance provides a number of general categories of hazards to consider, which were used as the impact evaluation criteria.

1.2.3 Hazard Analysis

Table A shows the results of the hazards analysis for Project construction activities and Table B shows the results for Project O&M activities. Outlines for the programs and plans described in Table A and Table B are included in Section 2.2.4.

Table A: Project Construction Hazard Analysis

Activity	Hazard	Control Program(s)
Motor vehicle and heavy equipment use	• Personnel injury and/or property damage from collisions between people, motor vehicles, and/or equipment	Construction IIPP Construction PPE Program
Forklift Operation	Personnel injury and/or property damage from collisions between people, forklifts, and/or equipment	Construction IIPP Construction PPE Program
Trenching and excavation	 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. 	Construction IIPP Construction PPE Program
Working at elevation	 Personnel injury and/or property damage resulting from falls from elevated areas Personnel injury resulting from overhead hazards. 	Construction IIPP Construction PPE Program
Crane/derrick operation	 Personnel injury and/or property damage from falling loads. Injuries and property damage from contact with crane or derrick. 	Construction IIPP Construction PPE Program
Working with flammable and combustible liquids	• Personnel injury and/or property damage resulting from fire, spills, or explosions	 Construction IIPP Construction PPE Program Construction FPP Plan
Hot work (e.g. cutting, welding)	 Personnel injury and/or property damage from fire, explosion, 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. 	 Construction IIPP Construction PPE Program Construction FPP Plan
Inspection and maintenance of temporary systems	• Personnel injury and/or property damage from contact with hazardous energy sources (electrical, thermal, and mechanical).	Construction IIPP Construction PPE Program
Working on electrical equipment	 Personnel injury resulting from contact with live electricity and energized equipment. Personnel injury resulting from arc flashes Fire hazard resulting from contact with live electricity and energized equipment. 	 Construction IIPP Construction PPE Program Construction FPP Plan
Hazardous waste exposure	dous waste exposure dous waste exposure to materials classified as hazardous waste under RCRA, which for this project would predominantly be waste oils (soil categorized as nonhazardous)	

Table A: Project Construction Hazard Analysis

Activity	Hazard	Control Program(s)
Confined space entry	• Personnel injury due to suffocation, or exposure to physical/chemical hazards while working in an area classified as a confined space	Construction IIPP Construction PPE Program
General construction activities	 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 hazards (>85 dBA 8 hr time weighted average) 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. 	 Construction IIPP Construction PPE Program
Grading or excavation activities	 Personnel exposure to potentially contaminated soil associated with abandoned oil wells Personnel injury resulting from collapse in a trench or excavation as a result of improper or inadequate shoring. 	Construction IIPP
Working outdoors/remote	 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. 	Construction IIPP
 Biological hazards Exposure to COVID-19 or other pathogens. Exposure to unsanitary conditions as a result of insufficient sanitation of chemical toilets, lack of access to hand washing stations, insufficient sanitary supplies 		 Construction IIPP Construction PPE Program
Work in weather extremes	Personnel sickness or injury resulting from extreme heat Vork in weather extremes	
Fire/explosion hazards	 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. 	
Working during a natural disaster	 Personnel injury and/or property damage resulting from wildfire hazards. Personnel sickness of injury resulting from an earthquake 	Emergency Action Plan

IIPP: Injury and Illness Prevention Program

PPE: Personal Protective Equipment

FPP: Fire Protection and Prevention

Table B: Project O&M Hazard Analysis

Activity	Hazard	Control Program(s)
Motor vehicle and heavy equipment use	• Personnel injury and/or property damage from collisions between people, motor vehicles, and/or equipment	O&M IIPP O&M PPE Program
Forklift operation	• Personnel injury and/or property damage from collisions between people, forklifts, and/or equipment	O&M IIPP O&M PPE Program
Trenching and excavation	 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. 	O&M IIPP O&M PPE Program
Working at elevation	 Personnel injury and/or property damage resulting from falls from elevated areas Personnel injury resulting from overhead hazards. 	O&M IIPP O&M PPE Program
Crane/derrick operation	 Personnel injury and/or property damage from falling loads. Injuries and property damage from contact with crane or derrick. 	O&M IIPP O&M PPE Program
Working with flammable and combustible liquids	Personnel injury and/or property damage resulting from fire, spills, or explosions	O&M IIPP O&M PPE Program O&M FPP Plan
Hot work (e.g. cutting, welding)	 Personnel injury and/or property damage from fire, explosion, 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. 	 O&M IIPP O&M PPE Program O&M FPP Plan
Troubleshooting and maintenance of Project systems and general operational activities	and general operational	
Working on electrical equipment	Eire bazard resulting from contact with live electricity and energized equinment	
Hazardous materials/waste exposure	project would predominantly be waste one (son categorized as nonnazardous)	
Confined space entry	O&M IIPP O&M PPE Program	

Table B: Project O&M Hazard Analysis

Activity	Hazard	Control Program(s)
 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 hazards (>85 dBA 8 hr time weighted average) 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. 		• O&M IIPP • O&M PPE Program
Grading or excavation activities	 Personnel exposure to potentially contaminated soil associated with abandoned oil wells Personnel injury resulting from collapse in a trench or excavation as a result of improper or inadequate shoring. 	• O&M IIPP
Working outdoors/remote	 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. 	
Biological hazards • Exposure to COVID-19 or other pathogens. • Exposure to unsanitary conditions as a result of insufficient sanitation of chemical toilets, lack of access to hand washing stations, insufficient sanitary supplies		 O&M IIPP O&M PPE Program
Work in weather extremes	Personnel sickness or injury resulting from extreme heat Work in weather extremes	
 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. 		 O&M IIPP O&M PPE Program O&M FPP Plan
Battery energy storage systems	• Personnel injury and/or property damage attributable to failure of battery energy storage system components.	 O&M IIPP O&M PPE Program O&M FPP Plan Emergency Action Plan
 Personnel injury and/or property damage resulting from wildfire hazards. Personnel sickness of injury resulting from an earthquake Personnel sickness of injury resulting from an earthquake 		Emergency Action Plan

O&M: Operations and Maintenance

IIPP: Injury and Illness Prevention Program

PPE: Personal Protective Equipment

FPP: Fire Protection and Prevention

1.2.4 Training and Safety Programs

Health and safety programs identified in Table A and Table B 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 A and Table B 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 (EAP), but only those personnel working with flammables would receive training under the Fire Protection and Prevention (FPP) Program.

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

1.2.4.1 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.

1.2.4.1.1 Construction Injury and Illness Prevention Program

In accordance with Title 8 of the California Code of Regulations (CCR), section (§) 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 to ensure accountability with program.
- A framework for compliance of Project personnel with Project-specific (as well as general) safe and healthy work practices. This will include 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.
- Procedures for identifying and evaluating workplace hazards, including but not limited to the hazards associated with the following activities:
 - Physical Hazards
 - Use of motor vehicles, heavy equipment, forklifts, and cranes
 - Trenching, excavation, and confined space entry
 - Working at elevation and overhead hazards
 - Hot work and work with electrical equipment
 - Working outdoors or in remote locations
 - Chemical Hazards
 - Handling hazardous waste, flammable and/or combustible liquids, gaseous materials, explosives, and batteries
 - Biological Hazards
 - ^a General construction hazards, including those encountered during inspections and/or

maintenance activities.

- Procedures to investigate occupational injury or illness, which will include but not be limited to the following:
 - Interviews of injured workers and witnesses.
 - Examination of the workplace for factors contributing to the accident.
 - ^a Corrective actions to prevent the accident/exposure from reoccurring.
 - Record of the findings and corrective actions taken.
- 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, which will include the following in addition to aforementioned recordkeeping practices (e.g. injury and illness investigations):
 - Hazard assessment and correction form records, which will detail any hazard assessment inspections, including the person(s) conducting the inspection, the unsafe conditions and work practices that have been identified, and how those conditions/practices were corrected.
 - Documentation of safety and health training for each employee, including employee name, personal identifier, training date, type(s) of training, and training providers.

1.2.4.1.2 Construction Fire Protection and Prevention Program

In accordance with Title 8 CCR, § 1920, a Fire Protection and Prevention (FPP) Program would be developed and implemented during Project construction. The Construction FPP 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 protection administrative and engineering controls that would be implemented during construction activities. These will include, but not be limited to:
 - At minimum fire extinguishers, as well as water or gaseous fire suppressing engineering controls.
 - Designated SMOKING and NO SMOKING zones with clear signage or clear designation of Project site as a smoke free work zone.
 - Regular inspection of motor vehicles undercarriage to ensure electric wires, exhaust systems, and fuel lines have not been ruptured or damaged.
 - Limits on vehicle/equipment run times to prevent over-heating.
 - Regular checks to ensure fire roads are not blocked.
 - Clear labeling of storage containers with flammable/combustible materials, with limits on volume of materials transported at any time on site.
 - Designated service and refueling areas.
- 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 oxygen, nitrogen, and diesel
 - Physical fire hazards such as electrical equipment, heavy equipment and motor vehicles, and wildfire
- Procedures to control accumulation of flammable and combustible waste materials, including but not limited to:
 - Disposal of oily or paint-soaked rags, waste, or clothing in appropriate closed metal containers that are emptied frequently and destroyed, hauled, or otherwise disposed of in an approved manner.
 - Storage of paints, thinners, oil, grease, and any other similar combustible or flammable materials in well-ventilated places away from sources of heat, open flame, sparks, or other sources of ignition.
- 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 implementation of the FPP, including the personnel titles (e.g. Safety Manager, Site Manager, Project Manager) and descriptions of the responsibilities of each of the personnel.
- Training of responsible parties and applicable staff on types of fire hazards, fire hazard prevention, classes of fires and appropriate response actions for the different classes, including identification of the appropriate extinguisher and proper handling of the extinguisher.

1.2.4.1.3 Construction Personal Protective Equipment Program

In accordance with Title 8 CCR, § 1514 - 1522, a Personal Protective Equipment (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.
- Complete descriptions of appropriate and adequate PPE for Project personnel, including but not limited to:
 - ^a The minimum PPE requirements for all employees on Project site.
 - PPE requirements for specific job tasks and hazards, along with the process of determination of the inclusion (where certain PPE would not typically be needed) or exclusion (where certain PPE would typically be required) of PPE.
 - A PPE Assessment Guideline to help personnel to more easily identify the specific PPE required for each task.
- Training on the use, inspection, storage, maintenance, cleaning, ordering, reimbursement, replacement, and limitations of the PPE, including documentation of personnel training requirements, and completion and expiration dates.
- Establishment of periodic reviews to evaluate the effectiveness of the PPE Program and update it where necessary, which shall include records of descriptions of amendments made, date of amendments, authors, reviewers, and approving body/personnel.

1.2.4.1.4 Construction Hazardous Materials Business Plan

A Hazardous Materials Business Plan (HMBP) would be prepared for submittal to San Bernardino County Fire Protection District 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.

1.2.4.2 O&M Health and Safety Programs

Upon completion of construction and commencement of Operation and Maintenance (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.

1.2.4.2.1 O&M Injury and Illness Prevention Program

In accordance with Title 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 to ensure accountability with program.
- A framework for compliance of Project personnel with Project-specific (as well as general) safe and healthy work practices. This will include 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.

- Procedures for identifying and evaluating workplace hazards, including but not limited to the hazards associated with the following activities:
 - Physical Hazards
 - Use of motor vehicles, heavy equipment, forklifts, and cranes
 - Trenching, excavation, and confined space entry
 - Working at elevation and overhead hazards
 - Hot work and work with electrical equipment
 - Working outdoors or in remote locations
 - Chemical Hazards
 - Handling hazardous waste, flammable and/or combustible liquids, gaseous materials, explosives, and batteries
 - Biological Hazards
- Procedures to investigate occupational injury or illness, which will include but not be limited to the following:
 - Interviews of injured workers and witnesses.
 - Examination of the workplace for factors contributing to the accident.
 - ^a Corrective actions to prevent the accident/exposure from reoccurring.
 - Record of the findings and corrective actions taken.
- 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, which will include the following in addition to aforementioned recordkeeping practices (e.g. injury and illness investigations):
 - Hazard assessment and correction form records, which will detail any hazard assessment inspections, including the person(s) conducting the inspection, the unsafe conditions and work practices that have been identified, and how those conditions/practices were corrected.
 - Documentation of safety and health training for each employee, including employee name, personal identifier, training date, type(s) of training, and training providers.

1.2.4.2.2 O&M Fire Protection and Prevention Program

In accordance with Title 8 CCR, § 3221, a FPP Program would be developed and implemented during Project O&M activities. The O&M FPP 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, and evacuation areas and/or muster locations.
- A description of fire protection administrative and engineering controls that would be implemented during O&M activities. These will include, but not be limited to:
 - At minimum fire extinguishers, as well as water or gaseous fire suppressing engineering controls (e.g. sprinklers throughout administration buildings)
 - Designated SMOKING and NO SMOKING zones with clear signage or clear designation of Project site as a smoke free work zone.
 - Regular inspection of motor vehicles undercarriage to ensure electric wires, exhaust systems, and fuel lines have not been ruptured or damaged.
 - ^a Limits on vehicle/equipment run times to prevent over-heating.
 - Regular checks to ensure fire roads are not blocked.
 - Clear labeling of storage containers with flammable/combustible materials, with limits on volume of materials transported at any time on site.
 - Designated service and refueling areas.
- 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 oxygen, nitrogen, and diesel
 - Physical fire hazards such as electrical equipment, heavy equipment and motor vehicles, and wildfire.
- Procedures to control accumulation of flammable and combustible waste materials, including but not limited to:
 - Disposal of oily or paint-soaked rags, waste, or clothing in appropriate closed metal containers that are emptied frequently and destroyed, hauled, or otherwise disposed of in an approved manner.
 - Storage of paints, thinners, oil, grease, and any other similar combustible or flammable materials in well-ventilated places away from sources of heat, open flame, sparks, or other sources of ignition.
- 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 implementation of the FPP, including the personnel titles (e.g. Safety Manager, Site Manager, Project Manager) and descriptions of the responsibilities of each of the personnel.
- Training of responsible parties and applicable staff on types of fire hazards, fire hazard prevention, classes of fires and appropriate response actions for the different classes, including identification of the appropriate extinguisher and proper handling of the extinguisher.

1.2.4.2.3 O&M Personal Protective Equipment Program

In accordance with Title 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 Project O&M activities.
- Complete descriptions of appropriate and adequate PPE for Project personnel, including but not limited to:
 - The minimum PPE requirements for all employees on Project site.
 - PPE requirements for specific job tasks and hazards, along with the process of determination of the inclusion (where certain PPE would not typically be needed) or exclusion (where certain PPE would typically be required) of PPE.
 - A PPE Assessment Guideline to help personnel to more easily identify the specific PPE required for each task.
- Training on the use, inspection, storage, maintenance, cleaning, ordering, reimbursement, replacement, and limitations of the PPE, including documentation of personnel training requirements, and completion and expiration dates.
- Establishment of periodic reviews to evaluate the effectiveness of the PPE Program and update it where necessary, which shall include records of descriptions of amendments made, date of amendments, authors, reviewers, and approving body/personnel.

1.2.4.2.4 O&M Emergency Action Plan

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

- Procedures for reporting of and proper responses to all foreseeable emergencies, including but not limited to:
 - Fire
 - Explosion
 - Aviation disaster
 - Active shooter
 - Earthquake
 - Wildfire
 - Bomb threats
 - Power outage

- Suspicious smell
- Establishment of procedures for emergency evacuation, including evacuation type and exit routes.
- Procedures for the training/informing of employees on:
 - Preferred means of reporting.
 - Emergency escape/shelter procedures and route assignments.
 - ^a The procedures are employed to account for all employees after an emergency.
 - ^a The alarm systems used, what each means and how to recognize them.
- An outline of procedures for Project personnel who remain to operate critical plant operations prior to evacuation.
- Establishment of a means for accounting for all Project personnel after an emergency evacuation.
- Descriptions of rescue and medical duties, if performed by Project personnel.
- Identification of an Emergency Response Coordinator, who will be responsible for at minimum:
 - Obtaining and posting floor plans with evacuation routes.
 - ^a Overseeing the development, communication, implementation, and maintenance of the EAP.
 - Ensuring the training of the building occupants and Department Managers and notifying all personnel of changes to the plan.
 - ^a Maintaining up to date lists of personnel with assigned duties under the plan.
 - In the event of a fire or other emergency, relaying applicable information to the emergency personnel, occupants, and floor.
 - Establishing the designated meeting sites.
 - Maintaining a list of assigned employees in the building.
 - Maintaining a list of Special Needs Employees (SNEs) who have willingly identified their disability and who will require assistance in the event of an emergency, ensuring that any structures or materials necessary for swift and safe evacuation of SNEs have been established or provided, respectively, and that any primary or secondary personnel necessary to assist SNEs have been appointed and their duties clearly described to them.
 - ^a Training new employees and employees who miss evacuation drills on emergency procedures.
- Identification of Department Managers and their respective responsibilities with respect to the EAP, which will include at minimum:
 - ^o Understanding primary and alternative escape routes for their assigned area.
 - ^a Understanding shelter process and designated location for assigned area.
 - Reporting to coordinator at assigned location immediately after their group has reached the safe area to verify their designated area is clear.
- Descriptions of 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, explosion, or other emergency.
- Identification of a secure location for storage of original or duplicate copies of important records.

1.2.4.2.5 O&M Hazardous Materials Business Plan

An HMBP would be prepared for submittal to San Bernardino County Fire Protection District 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.

1.2.4.3 Decommissioning Health and Safety Programs

At the time of decommissioning, all decommissioning related activities would follow the thenapplicable 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.

1.2.4.4 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 C summarizes the safety training programs that would be provided to Project construction personnel. Table D summarizes the safety training programs that would be provided to Project O&M personnel.

Training Course	Target Project Personnel
Injury and Illness Prevention Training	All personnel
PPE Program Training	All personnel
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
Hazardous Materials Business Plan	Project personnel responsible for the handling, storage, and disposal of hazardous materials

Table C: Project Construction Training Program Requirements

Table D: Project O&M Training Program Requirements

Training Course	Target Project Personnel
Injury and Illness Prevention Training	All personnel
PPE Program Training	All personnel
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 personnel
Hazardous Materials Business Plan	Project personnel responsible for the handling, storage, and disposal of hazardous materials

1.2.4.5 Fuel Handling and Fire Suppression

This subsection describes the Project's fuel handling and fire detection and suppression systems.

Most of the fuel, including gasoline and diesel fuel, will be procured at commercial gas stations in the local area during construction and operations staff vehicles and engines. To fuel construction equipment, a mobile fueling and maintenance vehicle will be brought in daily, as needed. A limited amount of #2 diesel and gasoline petroleum fuels (approximately 500 gallons each) will be stored in staging areas in temporary above ground steel tanks with secondary containment during construction only.

Fire detection measures are intrinsically incorporated in the Project design in accordance with National Fire Protection Association (NFPA) safety standards. Should a thermal event occur, the battery energy storage system (BESS) units would be designed and certified so that fire would not propagate from one cabinet to the neighboring cabinet. Exhaust created by a thermal event would be considered a Class B Fire, which is a fire that involves flammable liquids, gases, or greases.

The Project intends to install CATL EnerC Plus BESS units for the purposes of energy storage. The CATL EnerC units are sold as singular modular units that can easily be combined in parallel with one another to meet the energy storage needs for each project. An individual unit is packaged in a 20' x 8' x 9.5' metal housing. With respect to fire detection systems, the battery compartment of each unit comes standard equipped with 2 hydrogen gas detectors, 2 smoke detectors, and 2 heat detectors, and the electrical compartment of each unit has 1 smoke detector. All detection signals are received and processed by a fire control panel that also comes standard with each unit.

With respect to fire alarm systems, each unit comes standard equipped with a Horn-Strobe alarm. Additionally, the fire control panel (FCP) comes designed with a first-class and second-class fire alarm system which can be connected to a building management system (BMS) or emergency management system (EMS).

With respect to fire suppression systems, each unit comes standard equipped with a ventilation fan (for removal of hydrogen gas and/or smoke) and an aerosol system (for active fire suppression). The units have an optional dry pipe fire suppression system for fire cessation via displacement of oxygen with an inert gas.

The hydrogen gas detectors go into alarm when a concentration of 10% of the lower explosive limit (LEL) for hydrogen gas in air is detected. When the FCP receives an alarm signal from one or both of the hydrogen gas detectors, it will activate the ventilation fan.

Any singular activation of a smoke or heat detector alarm will trigger a first-class alarm signal from the FCP, which in turn will trigger the Horn-Strobe alarm, activate the ventilation fan, and alert the BMS and/or EMS system. In the event of A) simultaneous activation of 1 heat detector and 1 smoke detector alarm or B) simultaneous activation of 2 heat detectors alarms, a second-class alarm signal will be sent from the FCP, which in turn will trigger the Horn-Strobe alarm, activate the ventilation fan, alert the BMS and/or EMS systems, and enable the aerosol fire suppression systems. A second-class fire alarm signal will also enable the optional dry pipe fire suppression system if installed.

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 9540A Standard Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems
- IEC 62619 Standard for Battery Safety in Stationary Applications
- IEC 62477-1 Safety Requirements for Power Electronic Converter Systems and Equipment
- IEC 61000-6-2 Electromagnetic compatibility (EMC) Immunity Standard for Industrial Environments
- IEC 61000-6-4 Electromagnetic compatibility (EMC) Emission standard for industrial environments
- IEC 62933-5-2 Safety Requirements for Grid-integrated Electrical Energy Storage (EES) Systems -Electrochemical-Based Systems
- NFPA 855 Standard for the Installation of Stationary Energy Storage Systems
- UN 38.3 Transportation Testing for Lithium Batteries

The Project would conform with any requirements set forth in San Bernardino County Code of

Ordinances Title 2 Division 3 Chapters 2 - 8, which establishes policies, procedures, and the authority of county organizations (including the San Bernardino County Fire Protection District) to regulate items related to Fire Protection and Explosives and Hazardous Materials, which includes the design and operation of the fire suppression system.

The Project will complete a Plan Review with the San Bernardino County Fire Protection District (SBCFPD), which will include (but not be limited to) the submission and review of technical materials and design specifications for the BESS fire suppression systems. No construction or installation of any buildings or systems required for Plan Review by the San Bernardino Fire Protection District will commence until approval of plans is given by the SBCFPD.

In the event of a fire, the nearest fire station to Project site is San Bernardino County Fire Station 53, which is located approximately 11 miles north-east of Project site just off of I-15.

1.3 Laws, Ordinances, Regulations, and Standards

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

Jurisdiction	LORS	Applicability	Project Conformity	
Federal	29 CFR Part 1910	Contains the minimum occupational safety and health standards for general industry in the United States	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	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	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	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	The Project would comply with the requirements for fuel gas piping set forth in American National Standards Institute, B31.2	
Federal	29 CFR Part 1910.38	Outlines procedures for employees in the event of an emergency	The Project would comply with the requirements set forth in 29 CFR Part 1910 to prepare an Emergency Action Plan	

Jurisdiction	LORS	Applicability	Project Conformity
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	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	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
State	8 CCR § 339	Requires list of hazardous chemicals relating to the Hazardous Substance Information and Training Act	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	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	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

Jurisdiction	LORS	Applicability	Project Conformity
State	8 CCR, Construction Safety Orders, § 1500	Establishes safety orders for construction work	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	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	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	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	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.
State	8 CCR § 1620, et seq., and § 1723, et seq.	Addresses miscellaneous hazards	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	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	Helicopter usage associated with construction activities at the Project site would comply with the requirements set forth in 8 CCR § 1900, et seq.

Jurisdiction	LORS	Applicability	Project Conformity
State	8 CCR § 1920, et seq.	Requirements for fire protection systems	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	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	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	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.
State	8 CCR, § 5139, et seq.	Requirements for control of hazardous substances	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	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	An IIPP would be prepared and implemented for O&M activities associated with the Project in compliance with 8 CCR § 3203

Jurisdiction	LORS	Applicability	Project Conformity
State	8 CCR § 3270, et seq.	Requirements for the use of compressed air or gases	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	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	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	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.
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	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.

Jurisdiction	LORS	Applicability	Project Conformity	
State	8 CCR § 3649, et seq., and § 3700, et seq.	Requirements for addressing hazards associated with field vehicles	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	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	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	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	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	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	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	Project Conformity	
State	8 CCR § 5156, et seq.	Requirements for confined space entry	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	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	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	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	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.	

Jurisdiction	LORS	Applicability	Project Conformity	
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	Exposure to bloodborne pathogens would be controlled through implementation of requirements set forth in 8 CCR § 5193, et seq.	
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	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	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	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	Electrical work associated with the Project would comply with the requirements set forth in the California Electrical Code, Title 24, Part 3	

Jurisdiction	LORS	Applicability	Project Conformity	
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)	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	An HMBP would be prepared in accordance with HSC Sections § 25500 through § 25541	
Local	San Bernardino County General Policy Plan Safety & Security Section	Sets forth goals and policies related to the safety and security of residents, businesses, workers, and visitors	The Project would conform with any requirements set forth in San Bernardino County Code General Policy Plan Goal Safety & Security section	
Local	San Bernardino County General Policy Plan Goal HZ-2, Policies HZ-2.1 - HZ-2.11	Outlines policies related to Human-gerneated Hazards, including hazardous materials, noise, safer materials alternatives	The Project would conform with any requirements set forth in San Bernardino County Code General Policy Plan Goal HZ-2 and associated policies	
Local	San Bernardino County Code of Ordinances, Title 2, Division 1, Chapter 1	Establishes authority of miscellaneous Emergency Services Organizations, which includes the authority to regulate Emergency programs in for private corporations	The Project would conform with the health and safety requirements set forth by any regulatory county body noted in the San Bernardino County Code of Ordinances Title 2 Division 1 Chapter 1	

Jurisdiction	LORS	Applicability	Project Conformity
Local	San Bernardino County Code of Ordinances, Title 2, Division 3, Chapters 2 - 8	Establishes policies, procedures, and authority of county organizations to regulate items related to Fire Protection and Explosives and Hazardous Materials	The Project would conform with any requirements set forth in San Bernardino County Code of Ordinances Title 2 Division 3 Chapters 2 - 8
Local	San Bernardino County Code of Ordinances, Title 6, Division 3, Chapters 1 - 5	Establishes minimum building and construction standards for San Bernardino County	The Project would conform with the requirements set forth in the San Bernardino County Code of Ordinances

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, San Bernardino County Code of Ordinances, San Bernardino County General Plan

1.3.1 Federal LORS

Title 29 CFR Sections 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 regulations contained in CCR Title 8 (California equivalent of 29 CFR) are generally more stringent than those contained in CFR Title 29. The administering agencies for the above are OSHA for CFR and Cal/OSHA for CCR.

NIOSH

The National Institute for Occupational Safety and Health (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.

1.3.2 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.

California Code of Regulations

The California Code of Regulations (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 response 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 (OES).

Hazardous Materials Business Plan

The designated CUPA for the Project is the San Bernardino County Fire Protection District. The Hazardous Materials Compliance Program oversees the state-mandated programs in San Bernardino 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.

1.3.3 Local LORS

San Bernardino County General Plan

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

- Policies HZ-2.1 through HZ-2.11 Human-generated Hazards: People and the natural environment protected from exposure to hazardous materials, excessive noise, and other human-generated hazards.
- Policies PP-3.1 through PP-3.14 Fire and Emergency Medical: Reduced risk of death, injury, property damage, and economic loss due to fires, and other natural disasters, accidents, and medical incidents through prompt and capable emergency response.
- Policies PP-4.1 through PP-4.7 Emergency Preparedness and Recovery: A reduced risk of and impact from injury, loss of life, property damage, and economic and social disruption resulting from emergencies, natural disasters, and potential changes in climate.

San Bernardino County Code of Ordinances

The San Bernardino County Code of Ordinances includes requirements related to worker health and safety. These include but are not limited to:

- Title 2 Division 1 Chapter 1 Emergency Services Organizations: The declared purposes of this Chapter are to provide for the preparation and execution of plans for the protection of life and property within this County in the event of an emergency; the direction of the emergency organization; and the coordination of the emergency functions of this County with all other public agencies, corporations, organizations and affected private persons.
- Title 2 Division 3 Chapters 2 through 8: Division 3, Fire Protection and Explosives and Hazardous Materials, has a number of chapters that would be applicable to the Project, which include chapters 2) Fire Regulations, 3) Abatement of Fire Hazards and Hazardous Trees, 4) Authority and Administration for Hazardous Materials, 5) Public Nuisance Abatement for Hazardous Materials, 6) Permits, Inspections and Hearing Procedures for Hazardous Materials, 7) CUPA Permit Elements for Hazardous Materials, and 8) Compliance with Roof Covering Requirements within the Fire Safety Overlay.
- Title 6 Division 3 Chapters 1 through 5: Division 3, Building Regulations, has a number of chapters that would be applicable to the Project, which include chapters 1) California Building Code, 2) California Electrical Code, 3) California Plumbing Code, 4) California Mechanical Code, and 5) California Energy Code.

1.4 Agencies and Agency Contact

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

 Table F: Agency Contacts for Worker Health and Safety

Issue	Agency	Contact
	Cal/OSHA, Region 3, Santa Ana Regional Office	Vacant Regional Manager Santa Ana, CA Phone: (714) 558-4300 Email: DIRDOSHRegionIII@dir.ca.gov
Worker Health and Safety	California Department of Industrial Relations (DIR)	Phone: (844) 522-6734
	San Bernardino County Department of Public Health - Environmental Health Services	Phone: (800) 442-2283
CUPA for HMBP and Risk Management Plan (RMP) San Bernardino County Fire Protection District - Office of Fire Marshal		Kristen Ward, Deputy Fire Marshal San Bernardino, CA Reception: (909) 386-8401 24-hr Spill Notification Hotline: (909) 389-8425
Emergency Response for Hazardous Materials Spills and Fires	San Bernardino County, Office of Emergency Services	Phone: (909) 356-3998 Fax: (909) 356-3965
Fire Hazards	San Bernardino County Fire Protection District	Phone: 909.387.5974 Email: info@sbcfire.org

1.5 Permits and Permit Schedule

Applicable permits and permit schedule related to worker health and safety are shown in Table G.

Table G: Permits and Permit Schedule for Worker Health and Safety

Permit	Schedule	Status
CalOSHA Project Permit, for: • Trench/Excavation • Construction or Building/Structure • Scaffold/Falsework/Vertical Shoring	Submittal to and approval by Cal/OSHA Region 3 district office prior to commencing construction.	To be submitted
San Bernardino County Building Permit	Submittal to and approval by San Bernardino County Building and Safety Division prior to commencing construction.	To be submitted
San Bernardino County Fire Protection District Plan Review, including: • Planning • Commercial/Multi-Family Construction • Non-Residential Fire Sprinklers • Fire Alarms • Pre-Engineered System/ASTs • Non-residential Pumps	Detailed plans and associated documents related to the design of support buildings, the fire sprinklers/suppression system, the fire alarms, pre- engineered systems (fixed fire extinguishing systems, refrigeration systems, dust collection systems, gas detection systems, photovoltaic systems, above ground storage tanks), and any fire pumps must all be submitted to and approved by the San Bernardino County Fire Protection District prior to commencing construction.	To be submitted
Hazardous Materials Business Plan	Submittal at least 30 days prior to operation and submitted through California Environmental Reporting System (CERS). Permit administered by local CUPA enforcement agency, San Bernardino County Fire Protection District	To be submitted
Risk Management Plan	Submittal at least 30 days prior to operation and submitted through CERS.	To be submitted
Tower Crane Permit	Submittal to and approval by Cal/OSHA Region 3 district office prior to commencing construction.	To be submitted
Pressure Vessel Permit	Submittal to and approval by Cal/OSHA Region 3 district office prior to commencing construction.	To be submitted

Source: CalOSHA, San Bernardino Fire Protection District, San Bernardino County Building and Safety Division

1.6 References

American Society of Mechanical Engineers. (n.d.). ASME B31.2 Fuel Gas Piping. In American Society of

Mechanical Engineers. Retrieved May 31, 2024, from

https://webstore.ansi.org/standards/asme/asmeb311968

- American Society of Mechanical Engineers. (2023). ASME Boiler and Pressure Vessel Code (BPVC). In American Society of Mechanical Engineers. Retrieved May 31, 2024, from https://www.asme.org/codes-standards/bpvc-standards
- Beck, H., Zimmerman, N., McVicar, T., Berg, A., & Wood, E. (2018). Present and future Köppen-Geiger climate classification maps at 1-km resolution. *Scientific Data*, 180214.

https://doi.org/10.1038/sdata.2018.214

California Department of Industrial Relations. (n.d.). Article 12. Tower Cranes--Operating Permit and Certification Requirements. Retrieved June 2, 2024, from

https://www.dir.ca.gov/title8/ch3_2sb2a12.html

- California Department of Industrial Relations. (2024, April). *Pressure Vessels*. Retrieved June 2, 2024, from https://www.dir.ca.gov/dosh/pressure.html
- California Environmental Protection Agency. (n.d.). *California Accidental Release Prevention Program*. Retrieved June 2, 2024, from https://calepa.ca.gov/california-accidental-release-prevention/
- California Health and Safety Code. (n.d.). Division 20 Chapter 6.95 Hazardous Materials Release Response Plans and Inventory. In *JUSTIA US Law*. State of California. Retrieved May 31, 2024, from https://law.justia.com/codes/california/code-hsc/division-20/chapter-6-95/
- Cal/OSHA. (n.d.). *Guide to Developing Your Workplace Injury and Illness Prevention Program*. Retrieved June 11, 2024, from https://www.dir.ca.gov/dosh/dosh_publications/IIPP.html#8

Code of Federal Regulations. (n.d.-a). Title 29 Part 1910 Occupational Safety and Health Standards. In *Code of Federal Regulations*. Retrieved May 31, 2024, from https://www.osha.gov/lawsregs/regulations/standardnumber/1910

Code of Federal Regulations. (n.d.-b). *Title 29 Part 1910.38 - Emergency action plans*. US Government. Retrieved May 31, 2024, from https://www.osha.gov/lawsregs/regulations/standardnumber/1910/1910.38

- Daily Temperature Data BAKER CA. (n.d.). Applied Climate Information System. Retrieved May 28, 2024, from https://scacis.rcc-acis.org/
- Occupational Safety and Health Administration. (n.d.-a). *Emergency Action Plan » Minimum Requirements*. Retrieved June 3, 2024, from https://www.osha.gov/etools/evacuation-plansprocedures/eap/minimum-requirements
- Occupational Safety and Health Administration. (n.d.-b). *Emergency Standards* » *Fire Prevention Plan* (*FPP*). Retrieved June 3, 2024, from https://www.osha.gov/etools/evacuation-plansprocedures/emergency-standards/fire-

prevention#%3A%7E%3Atext%3DFire%20prevention%20plan%20requirements%2C-

A%20fire%20prevention%26text%3DAt%20a%20minimum%2C%20your%20fire%2Cto%20contr

ol%20each%20major%20hazard

Occupational Safety and Health Administration. (n.d.-c). Personal Protective Equipment. Retrieved June

3, 2024, from https://www.osha.gov/sites/default/files/publications/osha3151.pdf Occupational Safety and Health Administration. (n.d.-d). *Regulations (Standards - Title 29 CFR Part*

1926). Retrieved June 3, 2024, from https://www.osha.gov/laws-

regs/regulations/standardnumber/1926

Occupational Safety and Health Administration (OSHA). (2002). Job Hazard Analysis. In OSHA (No. 3071). Retrieved May 31, 2024, from

https://www.osha.gov/sites/default/files/publications/osha3071.pdf

- San Bernardino County. (n.d.-a). San Bernardino County Business Plan. Retrieved May 22, 2024, from https://countywideplan.com/business-plan/
- San Bernardino County. (n.d.-b). San Bernardino County Policy Plan. Retrieved May 22, 2024, from https://countywideplan.com/policy-plan/
- San Bernardino County. (n.d.-c). San Bernardino County Code of Ordinances. American Legal Publishing. Retrieved May 22, 2024, from

https://codelibrary.amlegal.com/codes/sanbernardino/latest/sanberncty_ca/0-0-0-146479

- San Bernardino County Fire Protection District. (n.d.). San Bernardino County Fire Protection District. Retrieved June 2, 2024, from https://sbcfire.org/
- San Bernardino County Fire Protection District. (2024). *Plan Reviews*. Retrieved June 2, 2024, from https://sbcfire.org/planreviews/
- State of California Department Department of Industrial Relations. (n.d.). Guide to Developing Your Workplace Injury & Illness Prevention Program. In *State of California Department Department of Industrial Relations*. Retrieved June 3, 2024, from https://www.dir.ca.gov/dosh/dosh_publications/iipp.pdf
- State of California Department of Industrial Relations. (n.d.-a). *Cal/OSHA Title 8 regulations Table of Contents*. Retrieved June 3, 2024, from https://www.dir.ca.gov/samples/search/query.htm
- State of California Department of Industrial Relations. (n.d.-b). *Permits, Licenses, Certifications, and Registrations*. Retrieved June 3, 2024, from https://www.dir.ca.gov/permits-licenses-certifications.html