
APPENDIX L

HAZARDOUS MATERIALS AND SAFETY

MEMORANDUM

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ATTACHMENT K
Hazardous Materials and Safety
Memorandum

MEMORANDUM

To: Geoff Forner, Aypa Power Development LLC
From: Joe Stenger and Chris Andrews, TRC
Date: February 5, 2025
Re: Hazardous Materials Safety Requirements, Marici Project, City of Industry, CA
TRC Project No. 604109

The Marici Project is a planned 400-megawatt battery energy storage system (BESS) to be constructed on an approximately six-acre parcel in City of Industry, California. The project will utilize lithium-ion battery energy storage technology with batteries in purpose-built outdoor containers to store energy from the grid and discharge it back into the grid when needed. The battery energy storage operation does not generate electricity and does not generate any emissions to air, land, or water. Operation of lithium-ion battery energy storage facilities require few hazardous materials. Hazardous materials expected to be needed include mineral oil, coolant and refrigerant. In addition, the backup generator will have a fuel tank and lubricating oil. Lithium-ion batteries also contain hazardous materials and spent or damaged batteries can fall under hazardous or universal waste management regulations.

This memorandum has been prepared to identify applicable regulations and consensus standards applicable to BESSs for use and storage of hazardous materials, fire prevention and protection, safety, and emergency response preparedness. These requirements will need to be integrated in Project planning and execution to comply with existing regulations and standards. Key regulatory requirements include, but are not limited to, the following as further described below:

- Federal and State requirements for Hazardous Chemical Inventory Reporting and Emergency Response Planning;
- Federal and State requirements for preventing spills;
- Federal and State requirements for employers to protect worker health and safety;
- Federal and State requirements for management of hazardous waste;
- National Fire Protection Association (NFPA) 855 standards for Battery Energy Storage Systems;
- State requirements for BESS Emergency Planning;
- State and local fire authority requirements; and
- Water quality protection requirements.

Hazardous Chemical Inventory Reporting and Emergency Response Planning

Section 311 in the Federal Emergency Planning and Community Right-to-Know Act (EPCRA) requires facilities that have hazardous chemicals to report the presence of such chemicals onsite to the State and local emergency planning committees (LEPC) if the chemicals are present above threshold quantities. In California, these requirements and additional hazardous material reporting requirements are implemented through California Code of Regulations (CCR) Title 19 Division 5, Chapter 1 (Section 5030.1 et seq). Under these regulations, the project will be required to maintain an inventory of all hazardous materials onsite in a quantity equal to or greater than 500 pounds, 55 gallons, or 200 cubic feet (STP) for gas or exceeding any federal threshold planning quantity in 40 CFR Part 355. The inventory will need to be submitted to Certified

Unified Program Agency and the local fire authority via online filing and must be updated annually and within 30 days of changes. The hazardous materials inventory must identify all hazardous materials onsite above threshold quantities and provide common and chemical name, Chemical Abstract Service Number, map location, quantity stored, type of container, largest container quantity, storage temperature and pressure information and hazardous properties. The inventory is designed to provide emergency response agencies with the information needed to be prepared for prompt and appropriate response to a potential hazardous materials incident. The submittal also must include emergency response plans and procedures including immediate notification of local emergency response personnel and procedures for mitigation, prevention, and abatement of hazards to persons, property or the environment. Title 19 Division 5 Chapter 1 regulations also require a training program including initial and annual refresher training for safe handling of hazardous materials, procedures for coordination with local emergency response agencies, use of onsite emergency response equipment and supplies. Such training helps to minimize the potential for hazardous materials incidents and to ensure prompt and appropriate response in the event of an incident.

Oil Spill Prevention and Preparedness

Oil-filled transformers will be subject to Code of Federal Regulations Title 40 Part 112 and California Health and Safety Code Chapter 6.67 requirements for development and implementation of a Spill Prevention Control and Countermeasures Plan (SPCC) including secondary containment for aboveground bulk oil storage containers, routine inspections for oil containment integrity and ensuring collected stormwater is oil-free before it is released, and contingency planning for prompt and appropriate response to a potential release. SPCC requirements would also apply to a back-up generator fuel tank and if a temporary bulk fuel tank is provided onsite during construction. The requirements in these regulations are designed to minimize the potential for an oil spill from equipment to impact waters.

Federal and State Occupational Safety and Health

Federal and State OSHA regulations require that all employees be informed and trained on hazardous materials in their work area at the time of their assignments. These are comprehensive regulations designed to protect worker health and safety and by doing so helping to minimize the potential for a hazardous material incident and ensure training for prompt and proper response to a potential hazardous materials incident. CCR 5194 requires manufacturers or importers to classify the hazard of chemicals that they produce or import and requires all employers to provide information to employees about the hazards of chemicals to which they may be exposed. A written hazard communication program must be maintained at the workplace including a list of hazardous chemicals, a Safety Data Sheet for each hazardous chemicals, comprehensive labeling and communication procedures for hazardous chemicals, training methods, and precautionary procedures to protect employees during normal operations and in the event of an emergency. Comprehensive training and precautionary procedures required by these regulations help to minimize the chance of a hazardous chemical spill or other human error hazardous chemical event. CalOSHA General Industry Safety Orders (Section 3220 *et seq.*) includes standard specifications for an Emergency Action Plan that employers must develop to keep employees safe from fire and other emergencies. Required components include redundant alarm systems, emergency reporting, procedures for emergency evacuation and continued operation of critical elements, emergency contacts, and training.

Hazardous Waste Requirements

The Project may generate small quantities of hazardous waste subject to regulation under CCR Title 22, Division 4.5 and would be expected to meet the criteria for Small Quantity Generator. State regulations in CCR Title 22 Division 4.5 require facilities generating hazardous waste to have preparedness and prevention measures in place for emergency response minimizing the potential for a release of hazardous

waste and to support prompt and appropriate response in the event of an incident including internal communications or alarm systems, fire control, spill control and decontamination equipment, fire suppression water systems, and posted emergency information. Hazardous waste Generators are required to ensure that employees are trained and knowledgeable on emergency procedures and to attempt to make arrangement with local emergency responder appropriate for the wastes managed.

National Fire Protection Association (NFPA) 855 – Battery Energy Storage Systems

The 2023 revisions to NFPA 855 are designed specifically to mitigate risks of fire and explosion for battery energy storage systems. The NFPA 855 requirements are incorporated in the International Building Code (IBC) requirements applicable to the Project via California Building Code. The NFPA 855 also requires and outlines the requirements for the following:

- Permits
- Hazard Mitigation Analysis (HMA)
- Fire Risk Assessment (FRA).
- Emergency response plan (ERP)
- Inspection, testing and maintenance of fire protection systems.

Containers would be spaced in accordance with NFPA 855 requirements that are designed to minimize risk of a fire spreading to adjacent containers so that if a fire occurs, it can be isolated. NFPA 855 also would require comprehensive safety planning submittals to the local fire authority having jurisdiction including results of bench-scale fire and explosion testing by the manufacturer and hazard mitigation analysis for the specific type of battery used, and an Emergency Response Plan designed to ensure well-planned, prompt, safe, and appropriate response in the event of an emergency. These submittals would be made to the Fire Department after the specific equipment is selected and prior to issuance of building permits. NFPA 855 mandates initial and annual refresher emergency response training for facility staff. The Project should coordinate with the Fire Department during construction and operations to facilitate site-specific Fire Department staff training.

State Requirements for BESS Emergency Planning

California SB 38, passed in 2023, requires BESS facilities to develop Emergency Response and Emergency Action Plans that:

- Establish response procedures for an equipment malfunction or failure;
- Provide for the safety of surrounding residents, neighboring properties, emergency responders, and the environment through procedures established in consultation with local emergency management agencies; and
- Establish notification and communication procedures between the facility and local emergency management agencies.

The Los Angeles County Fire Department is the Certified Unified Program Agency (CUPA) in the City of Industry and has jurisdiction for permitting the battery energy storage under NFPA 855 and will require the information needed for consistency with SB 30 and other emergency planning requirements for BESS prior to operations.

State and Local Fire Authority Requirements

The project will be required to comply with State building and fire code requirements and Los Angeles County Fire Code. Los Angeles County Fire Code adopts the California Fire Code and International Fire Code by reference. These codes include comprehensive regulations regarding all conditions affecting the

safety of fire fighters and emergency responders during emergency operations and required fire hydrant systems, water supply, fire equipment access, combustible materials controls, flammable liquid storage controls, and other requirements for fire and explosion prevention (LACFC Title 32, Section 101.2). Los Angeles County Fire Code section 1207 contains safety requirements specifically for energy storage systems and requires that project proponents obtain both a construction permit and an operating permit for lithium-ion energy storage systems of 20 kWh or more. Additional BESS design standards are under development by Los Angeles County Fire Department and the fire department will be responsible for fire safety plan reviews and inspections and will enforce the fire code. The Fire Departments authority over permitting and enforcement authority for the Fire Code, SB 38, CCR Title 19, and NFPA 855 will ensure integrated emergency prevention and emergency response planning and preparation across each of these requirements and that such measures are satisfied prior to operations.

Water Quality Protection Requirements

The Clean Water Act is implemented in California through the Porter Cologne Water Quality Control Act and both State and federal regulations include requirements designed to ensure that hazardous materials do not pose a threat to water quality. During construction, the project will need to comply with the State General Permit for stormwater discharges from construction sites as described further below. During operations, the project will need to implement and maintain engineering and other best management practices required under the Los Angeles County Municipal Separate Storm Sewer System (MS4) permit as described further below.

Construction NPDES

Because construction will disturb more than one acre, the Project will be required to apply for and comply with the State General Permit for stormwater discharges from construction sites. For coverage under the permit, the Project will need to submit a Storm Water Pollution Prevention Plan (SWPPP) with best management practices to be implemented to prevent stormwater pollution. Construction best management practices include storage and use of hazardous materials under safeguards to prevent releases to soil or water. Precipitation or runoff contact with hazardous materials must be prevented through engineering and other best management practices. The Regional Water Quality Control Board has jurisdiction for review of SWPPPs and implemented BMPs and will acknowledge coverage under the State General Permit upon demonstration of an appropriate SWPPP and other permit registration documents.

Operations MS4 Compliance

Operations requirements for the project also include best management practices for prevention of stormwater pollution. These measures include proper waste management to prevent contact with runoff, and storage and handling hazardous materials following measures to prevent spills or other releases that could be contacted by precipitation or runoff.