



2023 Maui Wildfires

U.S. Environmental Protection Agency, Region 9

Emergency Response Section

JOB HAZARD ANALYSIS #7: Power Walls / Lithium Batteries

JHA		
JHA #: 007	Name of Task: Power Walls / Lithium Batteries	Location: 2023 Maui Wildfires
Task Description: Managing power walls and lithium batteries		Task Duration: Daily

Physical Hazards							
Hazard	Source	Control Measures	Exposure Potential				
			H	M	L	Unk	N/A
Stored Energy (Electricity) / Fire and Explosion	1. Electric/Power supply lines 2. Power walls (Tesla and other brands or homemade versions) 3. Lithium batteries	1. Ensure all electrical power has been shut off/disconnected from the power wall: a. Licensed/certified electrician to verify power status. 2. Ensure no backfeeding to the power wall (i.e., solar panels or any other device that could potentially be feeding energy to or drawing energy from power wall). 3. Isolate the energy storage system (i.e., power wall) after verification that all energy to the system has been shut off or disconnected. 4. Prepare power wall for transportation: • Partially burned, Partially insulated, intact, but suspected insulated power walls: - Use SCBA for respiratory protection along with Flame-Resistant (FR) clothing. Completely charred or Completely charred and bulged power walls: – Use organic vapor/acid gas filters along with Flame-Resistant (FR) clothing. • Wrap powerwall in fireblankets (e.g., Bridgehill). • If any reaction occurs during handling, immediately drop the power wall and vacate the area to a safety place. • Place in transport vehicle and secure in place using straps or other equipment. • Ensure fire extinguisher and pressurized water sprayers are available during transport. 5. Transport power wall to secure staging area for further processing: • Coordinate with local fire department prior to transport. • If reaction occurs during transport, park vehicle immediately in a location with minimal fire risk (to the extent possible); call fire department (dial 911) immediately for assistance. • Maintain fire readiness (fire					

		extinguishers and pressurized water sparyers to cool container during transport in the event of reaction/fire situation).					
Chemical Exposure	By-product of fires involving lithium batteries	See Chemical Hazards section below					

Biological Hazards							
Hazard	Source	Control Measures	Exposure Potential				
			H	M	L	Unk	N/A
COVID-19 Exposure	Unknown	Follow COVID-19 protocols					

Chemical & Radiological Hazards							
Hazard	Source	Control Measures	Exposure Potential				
			H	M	L	Unk	N/A
Hydrogen Fluoride	By-product of fires involving lithium batteries	<div><div>1.</div><div>Partially burned, Partially insulted, intact, but suspected insulted power walls: - SCBA required for respiratory protection while handling power walls. – Completely charred or Completely charred and bulged power walls: organic gas/acid gas filters required for respiratory protection.</div><div>2.</div><div>FR clothing required for potential fires.</div><div>3.</div><div>In the event a reaction occurs during handling, immediately drop the power wall and vacate the area to safety.</div><div>4.</div><div>Notify the fire department (dial 911).</div></div>					

PPE				
Level A	Level B	Level C	Level D Mod	Level D
	Partially burned, Partially insulted, intact, but suspected insulted power walls -(SCBA for respiratory protection combined with FR clothing)	Completely charred or Completely charred and bulged power walls: (Organic gas/acid gas filters required for respiratory protection combined with FR clothing.)		

Other
None