Frequently Asked Questions for Owners or Operators of Facilities that Store, Use, or Manufacture 10,000 Pounds or more of Lithium-ion Batteries

19 December 2025

1. What is the purpose of this public notice and the public meeting?

The purpose of this public notice is to inform the public of the Hawaii State Emergency Response Commission's (HSERC's) intention, pursuant to chapter 128E, Hawaii Revised Statutes (HRS) and section 11-453-16(a)(2), Hawaii Administrative Rules (HAR), to designate owners or operators of facilities storing, using or manufacturing 10,000 pounds or more of lithium-ion batteries subject to the emergency planning requirements of chapter 11-453, HAR. Owners or operators of such facilities must then comply with the requirements of section 11-453-17, HAR, which may be summarized as follows:

- Designate a facility representative who will serve as a facility emergency coordinator and work with the HSERC to implement local emergency planning.
- Notify the local emergency planning committee (LEPC) within each county responsible for preparing hazardous material plans and performing other functions pursuant to 128E, HRS, and the HSERC within sixty days of the facility first being subject to regulation under this rule.
- On or before March 1 of each year, inform the committee of any changes occurring at the facility which may be relevant to emergency planning. Upon request of the LEPC having jurisdiction over the facility, promptly provide to the any information necessary for development or implementation of the chemical emergency response and preparedness plan for the emergency planning district

2. Why is it important to subject each owner or operator of a facility that stores, uses, or manufactures 10,000 pounds or more of lithium-ion batteries to the emergency planning requirements?

a. The Hawai'i Clean Energy Initiative goal [(Hawai‘i Clean Energy Initiative - Hawai‘i State Energy Office) https://energy.hawaii.gov/hawaii-clean-energy-initiative/] is to achieve 100% clean energy by 2045. Efficient energy storage in batteries is a critical component of this effort. Lithium-ion is one of the most commonly used battery technologies and provides a reliable supply of renewable energy. This technology, however, is associated with a risk of fire, explosion and other safety concerns.
b. Lithium-ion batteries, and their constituents, are not currently listed as subject to the reporting requirements in the Hawaii Emergency Planning Community Right-to-

Know Act (HEPCRA), chapter 128E, Hawaii Revised Statutes (HRS), and the rules adopted pursuant thereto in chapter 11-453, HAR. Given the increased frequency and unique challenges of responding to lithium-ion battery fires, the HSERC finds it timely and necessary to require each owner or operator of the relevant facilities to meet the emergency planning requirements to better protect the public, first responders, and the environment of the State of Hawaii.

b.1.) Are Lithium-ion batteries currently defined as extremely hazardous substances?

No. Lithium-ion is not listed as an extremely hazardous substance under section 11-453-19, HAR, which incorporates by reference title 40 CFR part 355, appendices A and B.

b.2.) Are Lithium-ion batteries currently defined as hazardous substances?

No. Under chapter 11-451, HAR, which incorporates by reference title 40 CFR part 355, appendices A and B, lithium-ion is not listed as a hazardous substance.

However, HSERC is designating owners or operators of Lithium-ion batteries that meet the threshold quantity of 10,000 pounds or more to report because lithium-ion batteries are hazardous and they pose risks of flammability and reactivity. Under certain conditions lithium-ion batteries can undergo thermal runaway, releasing toxic and corrosive fumes. Lithium-ion batteries are regulated by US. Department of Transportation under 49 CFR parts 171-180 as hazardous materials and require packaging and shipping requirements and documents.

c. What are the benefits of reporting for facilities that store, use, manufacture, Lithium-ion batteries with a threshold quantity of 10,000 pounds or more.

Reporting and submitting Emergency Plans for facilities that store, use, manufacture lithium-ion batteries with a threshold quantity of 10,000 pounds or more increases the safety of these facilities and their workers and neighbors, first responders, the public, and the environment.

Planning helps in preparing guidelines, which can include identifying and recommending:

- Different types of training (exercises and drills), appropriate equipment to be used when necessary, what agencies, (fire, police, emergency management), would be responding.
- Necessary facility improvements to reduce the risk of incidents and limiting their severity.

3. What are some of the dangers and health risks associated with lithium-ion batteries?

Lithium-ion batteries contain various components that present different hazards, such as flammability, toxicity, corrosivity, and reactivity hazards. Thermal runaway is one of the most recognized safety issues for lithium-ion batteries. Once a lithium-ion battery is damaged, which is referred to as the battery becoming "insulted", there can be a process of rapid self-heating, which may end up in cell destruction, fire and explosion. Explosions of lithium-ion batteries may release toxic gases and fumes, such as hydrogen fluoride, carbon monoxide, and hydrogen cyanide and particulates.

All lithium-ion batteries also have the potential to release metals such as nickel, copper, cobalt, and lithium, among others. [(LITHIUM BATTERIES SAFETY, WIDER PERSPECTIVE - PMC) https://pmc.ncbi.nlm.nih.gov/articles/PMC10464770/]; (Lithium-ion Battery Safety) https://www.osha.gov/sites/default/files/publications/OSHA4480.pdf]

4. Who is required to report?

Owner(s) or operator(s) of facilities storing, using or manufacturing 10,000 pounds or more of lithium-ion batteries are subject to the emergency planning requirements of chapter 11-453, HAR. Owners or operators of such facilities must comply with the requirements of section 11-453-17, HAR.

Some examples of facilities that store, use, or manufacture and meet the threshold quantity of 10,000 pounds of more of lithium-ion batteries are facilities that have Battery Energy Storage Systems (BESS) such as solar farms, wind farms, junk yards and automobile dealerships. Battery Energy Storage Systems (BESS), typically use Lithium-ion batteries to store energy and ensure a reliable supply of renewable energy. Lithium-ion batteries are used due to their cost-effectiveness, efficiency, and lifespan compared to alternatives like lead-acid batteries.

This new designation, creating a new reporting requirement for certain owners and operators, does not apply to households or facilities only storing consumer products for their own consumer end-use.

5. How do I determine if I meet the 10,000 pounds or more threshold?

The weight of a single battery must be weighed or determined, then multiplied with the total number of batteries that you have.

a. Example of a Battery Energy Storage System: The facility has a total number of 54 batteries. Each battery weighs 187 pounds each. Therefore:

187 pounds/battery x 54 batteries = 10, 098 pounds.

This facility will meet the threshold quantity and is subject to the emergency planning requirements of HAR 11-453-17.

b. How was the threshold quantity of 10,000 pounds decided?

The 10,000-pound (lb.) threshold in the U.S. Environmental Protection Agency (EPA) regulations did not originate from a single, specific event but instead developed over time within different regulatory programs.

Under the Emergency Planning and Community Right-to-Know Act of 1986, as amended, title 42 USC sections 11001-11050 (EPCRA), a 10,000-pound threshold triggers annual reporting requirements for most hazardous chemicals. Historically, the EPA established this threshold based on industrial practices and the need to regulate bulk quantities of chemicals. The EPA determined that 10,000 pounds was a reasonable figure for facilities to report, allowing regulators and first responders to focus on the substances posing the greatest risk in a large release. Likewise, the State has adopted this number as the default threshold for certain chemicals under HEPCRA reporting.

6. What is the payment fee if I meet the threshold quantity of 10,000 pounds or more of Lithium-ion batteries?

You are not required to pay the annual filing fee of $200.00 if you are an owner or operator of the a facility that stores, uses, or manufactures 10,000 pounds or more of **only** lithium-ion batteries and there are no other hazardous substances or extremely hazardous substances at your facility. You are, however, required to meet the emergency planning requirements of section 11-453-17, HAR. See question 1.

7. What types of Lithium-ion batteries are currently available and what are the different batteries used for?

There are many types of lithium-ion batteries such as: lithium cobalt oxide (LiCoO2), lithium manganese oxide (LiMn204), lithium nickel manganese cobalt oxide (NMC), lithium iron phosphate (LiFeP04), lithium titanate (LTO), and lithium Polymer (Li-Po). All of these batteries are considered to be lithium-ion batteries. Technology is moving at a fast pace. New batteries are being designed and produced by the different manufacturing companies. Many of them have developed their own design and can claim them as a trade secret. [https://www.tycorunenergy.com/lithium-battery-types/]

Lithium cobalt oxide (LiCoO2): used for portable electronics like smartphones, laptops, cell phones, digital cameras.

Lithium manganese oxide (LiMn204): Used for power tools, medical devices, some Electrical Vehicles

Lithium nickel manganese cobalt oxide (NMC): used for EVs and energy storage systems.

Lithium iron phosphate (LiFeP04): EVs and large-scale energy storage.

Lithium titanate (LTO): known for safety and long cycle life, it has a lower energy density.

8. Is there information available on how to handle an incident with Lithium-ion batteries of any size? A flyer is available at:

https://health.hawaii.gov/heer/files/2023/09/DOHLithiumIonBatterySafetyFlyer2023.docx

9. What is the public comment submission process?

You may submit your written public comments on the proposal to designate facilities in accordance with this notice during the 30-day period beginning October 1, 2025. HSERC will accept any comments received or postmarked no later than October 31, 2025.

By mail:

Attn: HEPCRA Coordinator, 2385 Waimano Home Road, Suite #100 Pearl City, Hawaii 96782

Or by email: broadcast_heer_osc@doh.hawaii.gov