

December 11, 2023

POLICY STATEMENT ON BATTERIES

Batteries have become an important and nearly unavoidable aspect of our modern economy. Businesses, institutions, and homeowners rely on myriad products, tools, and devices that are powered by an ever-growing variety of batteries. Indeed, batteries have become an integral component of many items that have made our lives more productive and convenient.

However, for all the benefits of batteries, they also represent a significant risk when improperly used, stored, or managed at the end of their useful life. In particular, when mismanaged, certain batteries present a dangerous fire hazard that poses a threat to the health, safety, and welfare of residents and workers. The improper storage, transportation, and/or disposal of batteries constitutes a substantial fire threat to homes, businesses, and vehicles. In fact, such fires have become increasingly common in homes and businesses. While there is some education and programming around the proper use, storage, and disposal/recycling of batteries, the incidence of battery-related fires continues to grow. The need for more robust education, training, and management solutions is evident.

The problem is particularly acute in the waste and recycling industry. When batteries are improperly included with material to be disposed of or recycled, those batteries create a fire risk for the containers in which they are placed, the vehicles that collect the material, and the facilities to which the material is delivered. Fires caused by batteries being improperly discarded jeopardize the investment and livelihood of both public and private operations. But more importantly, such fires endanger the health, safety, and welfare of employees, people who live or work nearby, and the first responders upon whom we rely.

The Michigan Recycling Coalition calls for improved policies and funding, and legislation as necessary, concerning the following areas:

- Increased consumer and employee education regarding the proper use, storage, and end-of-life management of batteries;
- Increased programming for the proper end-of-life collection and disposal/recycling of batteries;
- Enhanced detection and capture technology, as well as employee training, to ensure that batteries that are improperly discarded with waste and recycling materials are identified and properly managed when received at waste and recycling facilities;
- More robust deployment of onsite response equipment and training to ensure a safe, swift, and effective response to fires caused by batteries.

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This call for improved policies, funding, and legislation is not new or unique to Michigan. In the U.S., ten states and the District of Columbia have enacted product stewardship or extended producer responsibility (EPR) laws for batteries. Globally, similar laws and policies for batteries are found in countries such as Australia, Japan, India, and Canada, as well as the European Union. Moreover, a product stewardship or EPR framework is not new to Michigan. Our state has already adopted such an approach for items such as consumer electronics, lead acid batteries, scrap tires, and used beverage containers, among others.

In order to protect the health, safety, and welfare of Michigan residents and workers, to protect Michigan's environment, and to reduce the risk to private and public sector investment in equipment, facilities, and operations, a product stewardship or EPR framework for batteries should be established in Michigan.



Michigan Experiences

Recycling and waste operations throughout Michigan have experienced fires due to lithium-ion batteries being improperly included with waste or recycling materials. Often, these batteries are disposed with other flammable material, such as paper and plastic, and serve as a source of ignition. Below are just a few examples.

“Kent County operates residential material recovery facilities, electronics recycling collections, waste to energy, landfill, and transfer stations. On a daily basis, we identify and remove lithium-ion batteries or items containing lithium-ion batteries from our material stream. However, due to the significant increase of these batteries we are often unable to find them until they create a fire. In the last five years, we’ve had multiple facility and transfer trailer fires at all of our operations due to lithium-ion batteries. While we’ve been fortunate that those fires did not result in any injuries, we have experienced equipment damage, destroyed product, lost production time, water damage, extensive cleanup costs and required the assistance of the local fire department. Our losses have exceeded \$100,000.” — **Darwin J. Baas, MPA, Director, Kent County Department of Public Works**

“Emmet County Recycling is a public entity acting as a super drop off center in a rural area of northern Michigan. As a waste transfer station, MRF and hazardous materials collection program, we are assuming an overabundance of risk and liability when it comes to batteries in our facility and infrastructure. In a short period of time, several battery fires have broken out in our waste compactors, recycling balers and recycling tip floor. We have also seen an increase in waste haulers using our facility as a burning load drop space from batteries sparking fires in their loads. Our program has taken a focused approach in community collection of batteries in recent months due to the high standards of our battery vendor. As the super drop off, we bear the brunt of the liability and risk by collecting these batteries while trying to lead the charge educating about proper disposal. We fear losing our end market due to the complexity of safe shipping requirements. As a public organization, we do not have the capacity to meet their sorting and taping expectations. The current model is not sustainable and requires education and technology from the manufacturers to solve these safety issues on a larger scale before serious injury or damage occurs.” — **Andi (Shepherd) Tolzdorf, Director, Emmet County Recycling**

“Despite having education and collection programming for the proper recycling and disposal of batteries, every day, we identify and remove lithium-ion batteries or items containing lithium-ion batteries from the material stream at our MRF. Unfortunately, due to the steady increase of such batteries in our feedstock, sometimes we don’t find them until they become compromised and start a fire. In the last five years, we’ve had four significant fire incidents due to lithium-ion batteries. We’ve been fortunate that those fires did not result in any injuries, but we have experienced significant equipment damage, destroyed product, lost production time, and required the assistance of local first responders.” — **Michael Csapo, General Manager, Resource Recovery and Recycling Authority of Southwest Oakland County**

“Recycle Ann Arbor is a small non-profit in Southeast Michigan and operates a state-of-the-art zero waste MRF that serves as a regional recycling hub. In the 2 years our MRF has been in operation, we’ve had several lithium-ion battery fires break out. They continuously threaten the future of our mission and our ability to serve our community’s single stream recycling needs. Lithium-ion batteries can enter an uncontrollable, self-heating state that can result in the release of gas, cause fire, and possible explosion, and therefore pose a major safety concern to our employees. Once a fire breaks out, it can’t be extinguished with traditional fire extinguishers, and water may not prevent a lithium-ion battery from burning & spreading. Due to this grave risk, that could permanently put us out of business, we’ve invested our own capital funds (being a non-profit this is challenging) to purchase expensive fire prevention services.

“Additionally, reignition of lithium-ion batteries is common. Even after being extinguished, a lithium-ion battery can continue to generate heat (even with no visible sign of fire), when that heat reaches a certain level, fire may unexpectedly reignite and quickly spread. These batteries are known to reignite (without warning) minutes, hours, & even days after all visible fire has been put out. This not only impedes the safety of our employees/first responders, but it also requires overtime wages to be paid to staff to provide round-the-clock observation after a fire occurs, which is also a burden to our bottom line. If a fire were to fully ignite and spread, the damage would be significant and hard to recover from financially. Excessive heat from these fires is very destructive to our building’s infrastructure and equipment, not to mention if the fire department has to put the fire out, they could use up to a million gallons of water ultimately destroying all electronics required to operate our MRF. We will never be able to recoup those losses to rebuild our facility, therefore putting us out of business. This is why we’ve made the significant investments in detecting and stopping any fires before they spread, and continue to advocate for any policy level solutions that raise awareness and invest in the infrastructure needed to keep batteries out of the recycling.” — **Megan Lunsford, Marketing and Communications Manager, Recycle Ann Arbor**

“SOCRRA has had regular fires at our facilities that we believe are caused by lithium-ion batteries. We have had fires at both our recycling facility (MRF) and at our transfer station. Fortunately, SOCRRA staff and our fire protection systems were able to extinguish those fires before major damage occurred. However, SOCRRA has had to invest in multiple layers of fire detection and fire suppression systems in order to protect our facilities. One of the difficulties caused by lithium battery fires is that they have occurred at four different locations within our facilities. This makes it imperative for SOCRRA to maintain several different fire detection and fire suppression facilities. In addition, we will probably be required to invest in additional fire detection and suppression systems in order to adequately protect our facilities from the hazards posed by lithium batteries.” — **Jeff McKeen, General Manager, Southeast Oakland County Resource Recovery Authority**

“Throughout the state of Michigan, Goodwill has encountered compactor fires due to batteries slipping through our robust donation sorting programs. Goodwill diligently strives to ensure that each item entrusted to us finds its best and preferred home. However, with the increasing prevalence of Lithium-Ion batteries in regular household goods, Goodwill faces a significant challenge in safely managing these potentially dangerous items. Goodwill strongly advocates for a funded mechanism to properly recycle batteries, encompassing education, collection, logistics support, and producer assistance. We highly recommend considering the establishment of a statewide program that addresses these realities.” — **Nick Carlson, Goodwill Industries of West Michigan**