

Every day, Dwight Herring worries about the safety of his workers and if an improperly recycled battery will explode on the recycling sort line at the Shoreway Environmental Center in San Carlos.

PHOTO BY GEORGE E. BAKER JR.



A Little Battery, A Lot of Harm

Batteries pose an extreme risk to employees and facilities

BY ANNE STOKES

Around 8:30 p.m. on September 7, 2016, employees at the Shoreway Environmental Center's materials recovery facility (MRF) in San Carlos had just started processing materials after a meal break when they noticed something was terribly wrong.

A small fire had started in one of the automated screens that mechanically separates mixed paper from other recyclables. The fire quickly spread deeper into the facility as materials continued to be conveyed.

"Staff sprang into action and began extinguishing the fires they could access," said Dwight Herring, General Manager of South Bay Recycling who operates the RethinkWaste*-owned facility. "It was emanating thick, acrid black smoke and the supervisor at the time made the call to evacuate."

While there were thankfully no injuries, the building interior and processing equipment suffered extensive fire, smoke and water damage — damage significant enough to suspend the facility's ability to process recyclable materials. After examining the site, fire investigators strongly suspected the ignition source was likely a lithium-ion battery.

It was three months before the MRF could start processing materials again, and an entire year before the building and damaged equipment were fully restored. During this time, some employees were temporarily laid-off while repairs were made.

After the repairs were finished, the facility's insurance coverage cost increased significantly, ultimately impacting user rates.

"Just because the facility shut down doesn't mean the material flow stopped. We had to make arrangements to have third party haulers come in and remove that material," Herring said.

Since the fire, the facility has increased staff fire safety training and installed additional fire suppression equipment throughout the MRF, including improved sprinkler systems and an automatic plant-wide system shutdown in the event of fire. But those safety measures can only do so much.

What the Shoreway facility and all haulers in San Mateo County really need is for residents to make sure batteries don't get put into their recyclables or trash.

"When you're discarding a battery, and you're discarding it inappropriately — whether it's the

black cart or the blue cart — you're basically putting a bomb in that container. It takes very little damage to a lithium-ion battery for it to explode," he said. "You're literally putting an incendiary device into a pile of paper."

**RethinkWaste is a regional solid waste and recycling agency that is made up of 12 member agencies in San Mateo County from Burlingame to East Palo Alto.*

"IT TAKES VERY LITTLE DAMAGE TO A LITHIUM-ION BATTERY FOR IT TO EXPLODE. YOU'RE LITERALLY PUTTING AN INCENDIARY DEVICE INTO A PILE OF PAPER."

Dwight Herring
General Manager, South Bay Recycling



Watch video footage of the fire at
[Youtube.com/user/theRethinkWaste](https://www.youtube.com/user/theRethinkWaste)

BATTERIES IGNITED

In California

83% of waste facilities reported a fire in the past two years, and...

65% of those fires were started by batteries, and...

40% of all battery fires were started by lithium-ion batteries.

Source: California Product Stewardship Council, 2018

In North America

366 waste facilities in the U.S. and Canada reported fires, however...

93% of waste facility fires are estimated to be unreported, and...

37% of these fires increased over the previous year.

Source: Fire Rover/CalRecycle, October 2017-September 2018