

Fire at GM flagship Factory Zero EV plant highlights dangers of lithium-ion batteries

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23 December 2023

A raging fire at the General Motors Factory Zero electric vehicle plant on the Detroit-Hamtramck border in Michigan shut down production for two shifts Tuesday. The fire was caused by a hi-lo [forklift] accidentally puncturing a container with battery materials.

The fire filled much of the factory with heavy smoke and forced its evacuation. Two work shifts had to be canceled. Fortunately, no injuries were reported, although firefighters were hosed down after leaving the factory as a precaution due to potential exposure to dangerous chemicals.

According to press reports, the fire broke out in a shipping area that contained lithium-ion batteries. The three-alarm fire brought out 18 firetrucks and 60 Detroit firefighters.

Lithium-ion batteries produce toxic chemicals when burned, including carbon monoxide, methane, hydrogen cyanide, hydrogen fluoride and hydrogen chloride.

GM resumed production the next day. In the aftermath of the fire, General Motors issued a boilerplate statement declaring "Safety remains our overriding priority." The United Auto Workers, which covers the 1,800 workers at the factory, had not said anything at the time of this writing.

This was the eighth fire in the plant since August related to EV batteries. At a press briefing following the fire, Detroit Fire Chief James Harris admitted, "There is still a lot we don't know about this type of fire because it is new. But it is coming and it is not going to stop. We are doing a lot of research, going to other cities."

Harris said that as a result of the fire Tuesday much of the factory was filled with dense, potentially toxic smoke. It is not known if any health evaluation was

done of workers who might have been exposed to dangerous chemical residues.

According to a report in the *Detroit Free Press*, based on documents it obtained under the state Freedom of Information Act, "the Detroit Fire Department said in an Oct. 25 report there was 'an autonomous electric car fire' inside the factory that water sprinklers helped extinguish. The report stated the ventilation system was not operating correctly and did not allow smoke to exit the building in a timely manner. The car fire consisted of a 'battery fire, toxins and smoke was in the air.'"

General Motors said in relation to the October 25 fire, "Our investigation into the incident on October 25th indicates all safety systems operated correctly. We learned that the cause was a non-battery related component that has since been corrected."

Factory Zero opened in 2021 to much fanfare as the centerpiece of GM's move to electric vehicle production. Among those attending the opening ceremony were President Biden, GM CEO Mary Barra, then UAW President Ray Curry and Labor Secretary Marty Walsh. The plant builds the electric Hummer pickup truck and the electric Silverado pickup truck.

Production of the autonomous electric Cruise Origin was suspended earlier this year following the investigation of a crash involving a Cruise in San Francisco. California officials say Cruise tried to cover up the severity of the crash that involved a pedestrian being hit and dragged.

All of the auto companies are desperate not to be left behind in the shift to EV production, which will save them billions by slashing jobs. At the same time, companies are vying to cut costs to fund the transition, putting the safety of workers at risk.

The dangers involving lithium-ion batteries are receiving exposure due to their increasing use,

particularly in electric vehicles. According to government officials, there have been 400 incidents related to lithium-ion batteries this year.

A recent report on CBS noted that lithium-ion batteries were responsible for 220 fires in New York City in 2022 and were responsible for at least 10 deaths and 226 injuries in 2021 and 2022.

A lithium-ion battery in an electric motor scooter sparked a three-alarm fire in the Bronx that injured three people. A house fire ignited by a lithium battery killed three people in Brooklyn in November.

In April, a fire at a Jacksonville, Florida battery plant operated by Saft took firefighters hours to extinguish. A 20,000 pound battery caught fire and could not be put out with dry chemicals and special fire extinguishers, so firefighters had to let it burn while they evacuated the area. According to fire officials, the blaze emitted highly dangerous gasses, including hydrogen fluoride.

Explaining the difficulties firefighters encountered extinguishing the blaze, a Jacksonville fire official stated, "These batteries, whether it's the lithium-iron phosphate or lithium-ion batteries, they're small cells, they're packed together real tight," he said. "So what happens is once you get thermal runaway with one battery, then it impacts all the other batteries and compromises them. So it is not anything that you can put out with just putting a lot of water on them. ... Once one battery gets going, it just heats up the battery next to it and around it."

In 2016 President Barack Obama toured the Saft battery plant in Jacksonville, promoting it as the new face of high-tech manufacturing. The company claimed the facility was the "most advanced, automated lithium-ion battery factory." Construction of the plant was largely funded by subsidies received from the state of Florida.

In June 2023, a massive fire broke out at a lithium processing plant operated by Livent in Bessemer City, North Carolina. The fire was apparently limited to a warehouse facility where the solid lithium ingots are produced. It is not clear what caused the fire.

Since lithium fires cannot be extinguished with water due to the reactive nature of the material, firefighters had to let the fire burn. At great hazard, firefighters and Livent workers had to enter the building to remove over 200 drums of lithium to keep them from igniting.

Before a thorough environmental evaluation was even

conducted, local officials and plant managers assured residents that there was no danger and no evacuation was ordered, including not even the 250 workers at the plant.

While the potential hazards involved in battery production, use and storage are well known, the danger comes not so much from electric vehicle production in itself, but the subordination of all concerns regarding the safety of this new technology to the irrationality of the profit-driven capitalist system.



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