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INL gets fireproof gear to test electric car batteries

Associated Press

IDAHO FALLS - A nuclear research facility in eastern Idaho has added equipment that will allow it to test next-generation batteries for electric and hybrid vehicles.

The Idaho National Laboratory now has a pair of fireproof chemical storage units, which enable researchers to test fast-charging lithium-ion batteries in extreme temperature conditions, The Post Register reported Monday.

Today's fastest 480-volt electric car battery chargers take about 30 minutes to charge, said Kev Adjemian, director of the lab's Clean Energy and Transportation Division. Automotive manufacturers have been working to design batteries that can complete a charge in less than 10 minutes.

Batteries capable of the faster charge speeds are more fire-prone, which is why the laboratory's new equipment is necessary for testing.

The fireproof units are traditionally used in industries such as waste management and food manufacturing and can withstand fire for four hours.

"They give (the U.S. Department of Energy) a location to do these types of tests without burning a lab or a whole building down," Adjemian said. "We're trying to test these extreme conditions in a safe environment."

The lab tests experimental batteries from other Department of Energy facilities and the United States Council for Automotive Research, which includes Ford, General Motors and Fiat Chrysler Automobiles.

Once the batteries are tested, the researchers will work with industry or lab partners on any issues that came up during testing.

"Can the battery and vehicle withstand such high levels of charging? With time what are possible failure mechanisms?" Adjemian said. "We start with the developer to work on potential countermeasures to solve particular problems."