Army Testing Fuel Cell Technology for Abrams Tank

By Kris Osborn

The U.S. Army is testing fuel cell technology for an auxiliary power unit which can bring more electrical power on board an Abrams tank, service officials said.

The APU is designed to convert JP8 diesel fuel into hydrogen and then generate electricity through a fuel cell; fuel cells involve a chemical reaction wherein electrical current is generated by the breaking down of a hydrogen atom, said Steven Eick, chemical engineer, Tank Automotive Research, Development and Engineering Center (TARDEC).

The idea is to give an Abrams tank -- and ultimately other combat vehicles -- the ability to accommodate more on-board electricity such as more computing, battle command technologies, sensors and other electronics by adding fuel cells.

"Currently it is only being tested in a lab but it is being designed for the Abrams. Right now this is a prototype which will increase in its power density as it gets developed. Once it proves itself out in the lab - the intent is to install and test it in an actual vehicle," said Eick.

"Our goal is to generate more on board power to help support radios and other equipment."

Army engineers are also experimenting with fuel cell technology used to drive non-tactical vehicles, Eick said.

Source: http://www.army.mil/-news/2010/06/17/40980-army-testing-fuel-cell-technology-for-abrams-tank/?ref=news-science-img6