



# FACT SHEET

## Field Deployable Hydrolysis System (FDHS)

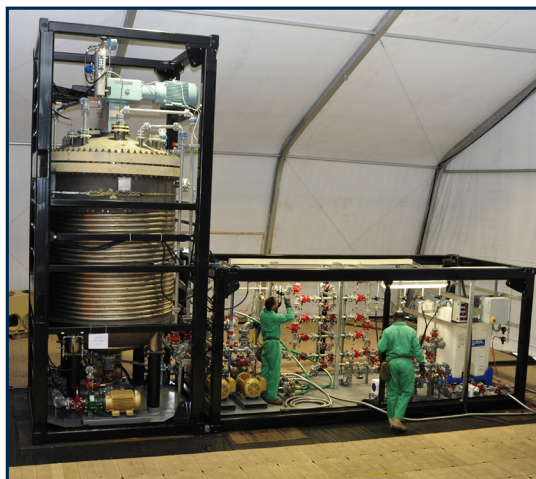
**The Field Deployable Hydrolysis System (FDHS)** is a transportable, high-throughput modular demilitarization system designed to render chemical warfare materiel into compounds not usable as weapons. The system uses neutralization technology to destroy bulk chemical warfare agents and their precursors by heating and mixing with reagents, such as water, sodium hydroxide and sodium hypochlorite to facilitate chemical degradation resulting in a destruction efficiency of 99.9 percent. The neutralization process generates hazardous waste in volumes of five to 14 times the volume of chemical warfare materiel treated. This hazardous waste can then be commercially disposed of in accordance with host-nation environmental laws.

The FDHS operates as an interchangeable demilitarization component of a larger modular destruction system. The modular system, with the FDHS, is designed to deploy worldwide, and is configured for shipment in approximately 35 20-foot shipping containers.

When deployed, it occupies a footprint of approximately 400 x 700 feet. The system includes power generators, hazardous waste storage and a laboratory, and requires only consumable materials (water, reagents, fuel) to operate. Redundant critical systems ensure maximum reliability and availability.

The FDHS can be operational anywhere in the world within 10 days of arrival on site. It is designed for 24/7 operations, with a crew of 15 personnel needed for each shift. Throughput varies depending on the material being treated, with rates from five to 25 metric tons per day. Multiple units can be co-located to further increase throughput rates while sharing security and other assets.

The FDHS is a fast-track acquisition project initiated in February 2013. The first unit was delivered July 1, 2013. Design, procurement, fabrication, testing and training were produced by a government team of the Edgewood Chemical Biological Center (ECBC), Joint Project Manager for Elimination (Provisional) (JPM-E (P)), Defense Threat Reduction Agency, Joint



*The Field Deployable Hydrolysis System was designed, developed and fabricated by a government team to provide a transportable, high throughput neutralization system designed to convert chemical warfare materiel into compounds not usable as weapons.*

Program Executive Office for Chemical and Biological Defense and the U.S. Army Contracting Command.

This team has successfully combined ECBC's rapid prototyping and field operational experience with JPM-E (P)'s experience in building and operating chemical agent neutralization facilities, at Aberdeen Proving Ground, Md., and Newport Chemical Depot, Ind. Those facilities safely and successfully completed their chemical agent disposal missions in 2006 and 2008, respectively.



**DTRA**

*As one of the subordinate commands of the Joint Program Executive Office for Chemical and Biological Defense, the **Joint Project Manager for Elimination (Provisional)** and its partners lead the world in the expertise to assess, treat and eliminate chemical warfare materiel safely and effectively.*

