



About NSCMP

The U.S. Army Non-Stockpile Chemical Materiel Program (NSCMP) leads the nation in the development and utilization of advanced technology to safely eliminate America's non-stockpile chemical materiel in a safe, environmentally sound and cost-effective manner. A division of the U.S. Army's Chemical Materials Agency, NSCMP researches and develops treatment options and destruction plans that comply with all federal, state and local regulations and encourages public participation in its activities. For additional information visit the NSCMP Web site at <http://www.cma.army.mil>.



U.S. Army Chemical Materials Agency
Public Affairs Officer
Non-Stockpile Chemical Materiel Program
 Building E4405
 AMSCM-SSP
 5183 Blackhawk Road
 Aberdeen Proving Ground, MD 21010-5424

(01/2004) 0.5K

Munitions Assessment and Processing System



RESEARCH. DEVELOPMENT. RESULTS.

The Munitions Assessment and Processing System (MAPS) will treat stable chemical and acidic smoke munitions in support of environmental clean-up activities at Aberdeen Proving Ground, Md. (APG). The facility will provide the U.S. Army with an environmentally friendly alternative to open detonation for most recovered munitions.

One of the Environmental Protection Agency's "priority sites" for environmental clean up, APG is home to potentially thousands of rounds of unexploded munitions. As a chemical and smoke development and testing center, recovered rounds are often unique, such as World War I-era British and French munitions and limited production test rounds. MAPS provides the Army flexibility to process common and unique smoke and chemical-filled rounds in an environmentally secure facility.

The ability to quickly and safely process recovered rounds will reduce the number of open detonations at APG and reduce the strain on available storage facilities.

The munitions are drilled inside MAPS' explosion containment chamber.



Sophisticated air monitoring and filtration system protects workers and the environment.

How it works

Before entering MAPS, munitions are assessed using an X-ray and the Non-Stockpile Chemical Materiel Program's portable isotopic neutron spectroscopy device to verify their contents and determine they are not armed. They are then taken to MAPS for processing. There, operators strap the munition to a trolley and place it in a drill box. The trolley then rolls on tracks into an explosion containment chamber where the munition body is drilled. It is then returned to the glove box where the chemical is drained into U.S. Department of Transportation-approved containers and the munition body is treated to neutralize any chemical contamination. The explosives from the drained munition are detonated within the MAPS burster detonation vessel.

The chemical agent is transported to the APG Chemical Transfer Facility for neutralization. Solid waste and decontamination solution are packaged and sent to a licensed commercial waste disposal facility.

Progress underway

NSCMP and APG developed MAPS in conjunction with the Maryland Department of the Environment; the U.S. Army Corp of Engineers, Baltimore District; Tennessee Valley Authority; the U.S. Army Ammunition Equipment Directorate and the John C. Grimberg Co. (as general contractor).

Construction ended in December 2003 and will be followed by system testing and final operational in-process reviews through February 2005. MAPS testing will evaluate the fundamental safety, environmental compliance, performance and maintainability of the facility.

Model of federal-state cooperation

As part of the unique spirit of cooperation on the MAPS program, the Maryland Department of the Environment granted MAPS the first Research, Development and Demonstration Permit (RD&D) ever issued in the state of Maryland. This permit allows the Army needed operational flexibility to deal with the wide variety of munitions recovered at APG.