DEMILITARIZATION

Ammunition projects a force against our adversaries, and it plays a vital role in protecting our nation, but, as time passes, ammunition begins to degrade. The propellant inside ammunition is especially dangerous. As it degrades, it becomes unstable.

The Army's ammunition mission, to include demilitarization, is coordinated through an enterprise management effort.

Joint Munitions Command (JMC) is responsible for the production, storage, distribution, demilitarization of munitions for the Department of Defense. As part of this role, JMC actively manages the military munitions stockpile to safely and securely disable, decontaminate, and demilitarize surplus, obsolete, and inoperable ammunition.

- The Army spends millions of dollars every year designing, developing, and investing in new alternative technologies to support the growing demilitarization mission.
- Demil Research, Development, Test and Evaluation (RDT&E) investments are focused on creating safe and sustainable solutions for demilitarization.
- The Army Ammunition RDT&E Demilitarization Program continues to explore and pursue capabilities that will address over 91% (294,000 short tons) of the Army's current demil stockpile of munitions.
- The RDT&E Demilitarization Program is also investing in capability sustainment and improvement projects that help support demilitarization capabilities already in use.

OUR COMMITMENT TO PEOPLE AND THE ENVIRONMENT

- JMC installations follow strict occupational safety and environmental guidelines for demilitarization.
- Air emission sampling continues to be conducted in cooperation with researchers from the EPA and NASA, using cutting-edge drone technology.
- Research efforts are ongoing to discover safer approaches for size-reducing bulk propellants so they can be safely treated through closed-disposal processes.
- Subject-matter experts are continually developing new approaches for safely treating energetic materials and waste streams associated with demilitarization.
- Open burn and open detonation (OB and OD) are regulated processes with managed and monitored releases to ensure protection of human health and the environment.
- To date, OB and OD is still the safest means of munitions destruction currently permitted under the Resource Conservation and Recovery Act.

U.S. ARMY

JOINT MUNITIONS COMMAND

CLOSED-DISPOSAL TECHNOLOGY ALTERNATIVES FOR DEMILITARIZATION

Learn more at: www.jmc.army.mil/obod/ob_od.aspx

RECOVERY, REUSE, RECYCLE

JMC installations take proactive measures to maximize the Recovery, Reuse, and Recycling (R3) of valuable materials and components contained in munitions items.

Recovery, reuse, and recycling processes disable and decontaminate surplus, obsolete, and inoperable munitions using various methods of disassembly, size reduction, and explosives decontamination.

Use of these processes provides valuable cost-saving opportunities to the Army, such as the reuse of demilitarized projectile bodies for use in Joint Service training rounds.

AMMUNITION PECULIAR EQUIPMENT

JMC installations use conventional and advanced robotic ammunition-demilitarization-processing equipment known as Ammunition Peculiar Equipment (APE) to perform many demilitarization operations in a safe and environmentally-compliant manner.

Tooele Army Depot specializes in the design and production of APE, which is developed and fielded in compliance with state and federal environmental standards. APE provides the capability to disassemble, mutilate, and recycle munitions for scrap metal.

ALTERNATIVE TECHNOLOGIES

Closed-disposal technology alternatives for demilitarization are used to melt, wash, steam out, and chemically convert energetic materials to resaleable commercial products.

Furnaces, decontamination chambers, chemical conversion processes, and other advanced technologies use methods of heating, cooling, melting, and washing to decontaminate and recover ammunition items and parts.

Many alternatives use pollution-control technology such as wet scrubbing, absorption, neutralization, and filtration to control emissions and acidic gases generated during demilitarization of certain munitions items.