RECOVERED CHEMICAL MATERIEL DIRECTORATE

FACT SHEET

RCMD OPERATIONS AT PINE BLUFF ARSENAL (PBA)

The U.S. Army Chemical Materials Activity (CMA) Recovered Chemical Materiel Directorate (RCMD) has completed a number of chemical demilitarization operations at Pine Bluff Arsenal (PBA), Ark., including the destruction of the largest recovered chemical warfare materiel (RCWM) inventory to date and more than 4,300 ton containers (TCs).

During recent environmental efforts, thousands of Chemical Agent Identification Sets (CAIS) K-941 bottles and several munitions were recovered. RCMD will return to PBA for ongoing assessment and destruction operations.

Completed RCMD projects at PBA

Pine Bluff Ton Container Decontamination Facility (PBTCDF): PBTCDF began operations in September 2003 to decontaminate and recycle more than 4,300 empty TCs stored at PBA. The 1,600-pound steel containers once held hazardous materials and required decontamination for residual chemical agent hazard. Operators heated the TCs to 1,000° F for 60 minutes, well in excess of the standard required by the Army to achieve chemical agent decontamination. This process significantly reduced liquid waste. Once decontaminated, TCs were loaded onto trailers for transport to a treatment, storage and disposal facility. There, they were cut in half, any remaining residue was removed, and the steel was recycled. PBTCDF successfully completed operations in July 2011, resulting in the recycling of more than 6,500,000 pounds of U.S. steel.

Pine Bluff Explosive Destruction System (PBEDS): PBEDS began operations in June 2006 to destroy more than 1,200 recovered chemical warfare munitions at PBA – the largest inventory of RCWM to date. The system involved three Explosive Destruction System (EDS) units, each set up in a vapor containment structure. The EDS uses cutting charges to explosively access chemical munitions, eliminating their explosive capacity before the chemical agent is neutralized. The PBEDS inventory included 4.2-inch mortars as well as German Traktor rockets, which were captured during World War II. PBEDS operators destroyed the last munition in April 2010, marking the destruction of all non-stockpile materiel declared when the United States entered into the Chemical Weapons Convention (CWC). The CWC, ratified in 1997, is an international treaty mandating the destruction of our nation's chemical warfare materiel.

Three separate Environmental Enclosures house the transportable Explosive Destruction System units. The facility is known collectively as the Pine Bluff Explosive Destruction System, or PBEDS.

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Completed RCMD operations at PBA (continued)

Pine Bluff Former Production Facilities: PBA once housed two chemical warfare production facilities, and RCMD was charged with destroying them to comply with the CWC. Destroyed in 1999, the BZ Fill Facility filled munitions with the agent BZ, a hallucinogen similar to LSD. In 2003, RCMD began demolition of the former Pine Bluff Integrated Binary Production Facilities (PB IBPF), designed to produce binary chemicals and fill binary chemical weapons. These weapons were designed to mix two non-lethal chemicals to form a chemical agent in flight to a target. The DF Production/M20 Canister Fill and Close Facility was the only binary facility operated. From 1988 to 1990 it produced the binary precursor methylphosphonic difluoride (DF), inserting the chemical into coffee can-sized M20 canisters for use in the M687 155mm Binary Artillery Projectile. The BLU-80/B Bigeye Bomb Fill Facility, QL Production Facility and DC Production Facility never operated, and all were demolished. The final remaining PB IBPF building, intended to fill binary munitions for the Multiple Launch Rocket System, but never used for that purpose, was reutilized as the Pine Bluff Binary Destruction Facility (PB BDF), to neutralize the binary precursor chemicals DF and QL. After neutralization was completed in October 2006, demolition of the building commenced. Completed on Dec. 28, 2006, it marked the end of the PB IBPF demolition and the last former chemical warfare production facility destroyed in the United States. This accomplishment was significant, since it enabled RCMD to surpass the Chemical Weapons Convention (CWC) treaty milestone of demolition of all the nation's former production facilities four months ahead of schedule. Approximately 2,800 tons of metal were recycled from the IBPF.

Assessment: Contents of RCWM at PBA were identified using the Pine Bluff Munitions Assessment System (PBMAS). PBMAS determined the contents and explosive condition of items before processing to enhance safe handling, treatment and disposal. PBMAS began analyzing the items in July 2005, using an X-ray system known as Digital Radiography and Computed Tomography, and an assessment system known as Portable Isotopic Neutron Spectroscopy. Prior to PBMAS, RCMD also assessed 300 drums that contained RCWM, known as the XP300 mission.

Chemical Agent Identification Set (CAIS) Destruction: The Rapid Response System (RRS), a transportable treatment technology, processed more than 5,300 CAIS items once stored at PBA. The Army manufactured and distributed CAIS items to military installations around the country between 1928 and 1969 to train soldiers in the safe identification, handling and decontamination of chemical agents. Many CAIS items were buried, an acceptable practice until the 1970s. The RRS began operations in August 2005, and completed processing in November 2006.

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