

# T-30 Detonation Chamber Used for Remediation and Disposal Efforts in Spring Valley, Washington, D.C.

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## CBARR Takes Steps to Maintain Operational Readiness for EDS Mission

Hidden beneath the idyllic Washington, D.C., neighborhood of Spring Valley are remnants from years of chemical production and munitions testing. Originally discovered in 1993, thousands of munitions have been unearthed that were originally left in 1918 by soldiers who used the Washington, D.C., neighborhood prior to its development to make and test chemical weapons.

All cleanup efforts have been led by the U.S. Army Corps of Engineers, with ECBC's Chemical Biological Application Risk Reduction (CBARR) Business Unit first hired in the late 1990s to lend support – a charge it has been committed to for more than 12 years. CBARR's support to the Army Corps of Engineers was originally only supposed to last six months; to still be successfully supporting the customer after so many years is a reflection of CBARR's commitment to providing the customer with solutions that help to make the world a safer place.

## Transportable Detonation Chamber (TDC) T-30

In 2011, CBARR's cleanup assistance to the Army Corps of Engineers specifically focused on decontamination and remediation. In January 2011, CBARR brought the ECBC-owned Transportable Detonation Chamber (TDC) T-30 to Spring Valley. The TDC T-30 is used to destroy conventional explosives with no chemical agents and has the ability to destroy a large number of samples in one day. Prior to the TDC T-30, CBARR operated the U.S. Army Chemical Materials Agency-owned Explosive Detection System, which neutralizes chemical agents and has the ability to handle a small amount of explosives. In the months since the TDC T-30 was first brought to site, the team has destroyed approximately 110 items, including 15 known explosives and numerous unidentifiable items.



The T-30 TDC operations are fully enclosed under a tent-like structure to protect personnel and equipment from weather, and to provide noise abatement during detonation activities. With a maximum demonstrated daily throughput of 21 munitions, the deployable system has been used at project sites across the country.



The T-30 Transportable Detonation Chamber (TDC) is a transportable system designed to provide high throughput, safe destruction of explosively configured conventional munitions. The chamber features a double-walled construction fabricated with steel that can accommodate up to 30 pounds of TNT equivalent for projectiles with a maximum diameter of 155 millimeters. The chamber interior is lined with hardened abrasion-resistant armor plates and the space between the walls is filled with dry silica sand that functions as a shock absorber. The effects of the blast are contained within the chamber, which localizes and reduces the overall pressure and fragmentation of the munition to a level that has no effect on the surrounding community. Solid emission products released by the detonation are collected on Torit bag filters. The TC-30 TDC system has enabled CBARR operators to destroy more than 115 recovered items at Spring Valley in Washington, D.C., where 17 of those items were known or suspected to contain explosive material. In April 2012, the system was transported to the west coast, where it safely destroyed a variety of items recovered from the Port of Seattle.

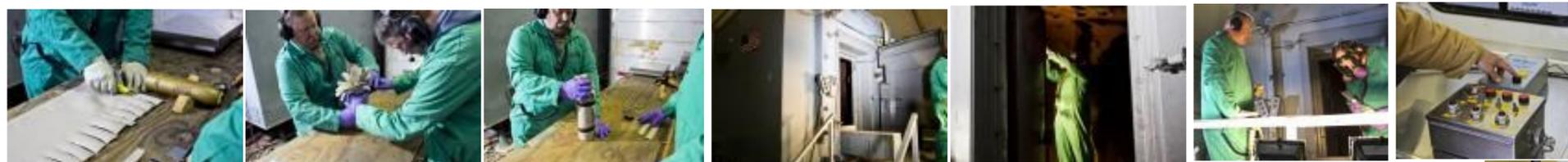
## Impact of Remediation and Disposal Efforts

Beyond providing destruction systems, CBARR has also supported the Army Corps of Engineers by providing air monitoring, chemical analysis and air filtration systems and structures to protect residents from possible hazards. "Over the years, CBARR has provided team members with many different specialties to support the essential remediation and disposal efforts in Spring Valley. Together with the Army Corps of Engineers, CBARR has been able to destroy over 130 recovered items, helping to keep the neighborhood safe.

The impact of CBARR's support to the Army Corps of Engineers can be seen in the recognition the team received in March 2011, by Brig. Gen. Peter A. DeLuca, North Atlantic division commander and division engineer for the U.S. Army Corps of Engineers. DeLuca presented CBARR members with a certificate of appreciation. The award commemorated CBARR's outstanding service during the planning and execution of the conventional munitions destruction operation at Spring Valley. The CBARR Team was lauded for the knowledge, professionalism and dedication they brought to the project.



Cleanup continues near a residence in the neighborhood of Spring Valley.



## Spring Valley Project Timeline

