

# Assembled Chemical Weapons Alternatives Update

29 September 2010

**Presented to:**

**Colorado Chemical Demilitarization Citizens' Advisory  
Commission**

**Presented by:**

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Program Manager**



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Chemical Weapons Alternatives

A PARTNERSHIP FOR SAFE  
CHEMICAL WEAPONS DESTRUCTION

[www.pmacwa.army.mil](http://www.pmacwa.army.mil)





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# Agenda



## A Partnership for Safe Chemical Weapons Destruction

- Environmental Assessment (EA) for Explosive Destruction Technology (EDT) Status
- New EA
- EDT Path Forward
- Environmental Modeling for Overpacked/Rejected Munitions
- Environmental Modeling for Two Options
- Information and Online Program Resources
- Questions



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# EA for EDT Status



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- A new EA is being initiated to analyze using an EDT at Pueblo Chemical Depot
  - To destroy:
    - Overpacked and reject munitions
    - One category of munitions that may reduce handling and worker risk: boxed 105mm projectiles with M57 fuze
    - Explosive components of munitions currently scheduled to be treated off-site
  - To be performed by Oak Ridge National Laboratory with a target completion of Fall 2011
  - To supplement the 2002 Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) Final Environmental Impact Statement, which initially addressed the requirement for an EDT at PCAPP
  - To address stakeholder comments from the previous EA, including those from EPA Region 8



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# New EA



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- New EA will include:
  - The Army's Explosive Destruction System
  - A selected commercial EDT
  - A "no action" option
  - Environmental modeling requested by EPA Region 8



Commercial  
Explosive Destruction Technologies (EDT)

Static Detonation Chamber (SDC)

Transportable Detonation Chamber (TDC)

Detonation of Ammunition in a Vacuum-Integrated Chamber (DAVINCH)

This block contains three images illustrating different commercial explosive destruction technologies. The first image shows a tall, multi-story industrial structure with scaffolding, identified as a Static Detonation Chamber (SDC). The second image shows a large, white, rectangular chamber on a trailer, identified as a Transportable Detonation Chamber (TDC). The third image shows a large, cylindrical chamber with a complex internal structure, identified as a Detonation of Ammunition in a Vacuum-Integrated Chamber (DAVINCH).



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# EDT Path Forward



## A Partnership for Safe Chemical Weapons Destruction

Fall 2010	Proceed with implementation of baseline EDT; withdraw current Environmental Assessment
	Award contract to Oak Ridge National Lab for preparation of new Environmental Assessment required to meet updated "purpose and needs"
	Bechtel to reissue Request for Proposal based on new scope
Winter 2010	Vendor proposals submitted; vendor briefings to Bechtel and CAC
	Commercial EDT selected
Spring 2011	EDT vendor provides data needed to address EPA Region 8 data requirements
Fall 2011	New Environmental Assessment with draft "Finding of No Significant Impact" issued for public comment
Winter 2011	Final "Finding of No Significant Impact" issued; Acquisition Decision Memorandum signed
	Submit Resource Conservation and Recovery Act (RCRA) permit application
	EDT vendor released to fabricate EDT; submit RCRA permit application
Winter 2012	RCRA permit approved (permit in effect); site construction commences
Spring 2014	EDT construction/systemization complete
Summer 2014	EDT approved to begin operations



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# Environmental Modeling for Overpacked/Rejected Munitions



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105mm projectiles:	4,250*
4.2" mortars:	1,170*
155mm projectiles:	3,400*
Treaty-sampled munitions:	400*
Total:	9,220*



- Environmental modeling will be conducted to develop data associated with processing overpacked munitions and anticipated rejects
- Estimated number of overpacked munitions has increased as a result of continued aging of the stockpile
- Estimated number of rejects adjusted to 1% of the stockpile based on lessons learned from the Linear Projectile/Mortar Disassembly (LPMO) System testing at Anniston and stockpile condition assessments



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# Environmental Modeling for Two Options



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- In addition to the overpacks/rejects, additional modeling data is needed to take into consideration two other process feed types, based on determination of risk and safety impacts:
  - 28,375 boxed 105mm projectiles with M57 fuze
  - Explosive Components from all munitions processed in the PCAPP (105mm projectile fuzes & bursters, 4.2" mortar fuzes & bursters, 155mm bursters (non-fuzed), 105mm bursters (non-fuzed), 105mm propellant, 4.2" mortar propellant)



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# EDT Information Sources



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- All past and present information on EDT can easily be found from the home page of the ACWA website
- [www.pmacwa.army.mil](http://www.pmacwa.army.mil)

**Featured ACWA News**

**New Path Forward Charted for Explosive Destruction Technologies at Pueblo**

After careful consideration, the February 2010 Environmental Assessment (EA) has been withdrawn and a new EA will be completed in 2011.

The Assembled Chemical Weapons Alternatives (ACWA) program will focus on the originally planned use of explosive destruction technology (EDT) for destroying overpacked and reject munitions. In addition, the ACWA program will consider using the EDT to destroy explosive components removed from munitions, and one category of munitions which may require increased handling by workers. The decision made included input from a 63-day public comment period and an extensive review by senior Department of Defense leadership.

"An EDT has always been part of the plant design, and we recognize the need to do a more rigorous analysis on EDT use than originally envisioned," said Kevin Flamm, ACWA program manager.

ACWA will contract with Oak Ridge National Laboratory to prepare a new EA for the use of EDT which will supplement the 2002 Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) Final Environmental Impact Statement. The new EA will be completed in 2011, will address the comments received from Colorado stakeholders from the February 2010 assessment, and will include the participation of the Environmental Protection Agency, Region 8. Dates for a public comment period and public meetings will be announced as a timeline for this new EA is developed.

The ACWA program is fully committed to the safe and environmentally compliant destruction of the chemical weapons stockpiles in Colorado and Kentucky. The program will continue to undertake efforts to mitigate risk and look for opportunities to increase the confidence in completing the destruction of both stockpiles as close to the congressionally-mandated 2017 deadline as possible.

For more information, read the official [press release](#) or reference the Explosive Destruction Technology [information repository](#).

**EXPLOSIVE DESTRUCTION TECHNOLOGIES AT PUEBLO**

**Press Release: New Path Forward Charted for Explosive Destruction Technologies at Pueblo Chemical Depot**  
Date: September 13, 2010

**Background Information: February 2010 Environmental Assessment (Withdrawn Sept. 2010)**

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**ACWA MISSION**

The safe and environmentally sound destruction of the chemical weapons stockpiles stored at the **Blue Grass Army Depot, Ky.** and the **U.S. Army Pueblo Chemical Depot, Colo.**  
[Learn more about ACWA.](#)

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**STATUS UPDATES**

- ACWA June 2010 Quarterly Brief
- BGCAPP August 2010 Monthly Status Briefing
- PCAPP August 2010 Monthly Status Briefing

**AROUND ACWA**



Your resource for program information:

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# Questions/Discussion



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# Back Up Slides

**Base Case:**  
(Overpacked & Reject Munitions)\*

105mm projectiles:	4,250
4.2" mortars:	1,170
155mm projectiles:	3,400
Treaty-sampled munitions:	400
Total:	9,220

\*NOTE: Estimated number of overpacked munitions may increase as a result of continued aging of the stockpile; estimated number of reject munitions is expected to increase based on worst case numbers from LPMD testing

**Boxed Projectiles with M57 Fuze**

**105mm projectiles: 28,375**

**Explosive Components**

(All explosive components not destroyed as part of Base Case)

**105mm projectile fuzes & bursters: 28,375**

(some of which may be included in the Base Case & assumes ACWA does not implement Option 1)

**4.2" mortar fuzes & bursters: 95,936**

(excludes Base Case)

**155mm bursters (non-fuzed): 296,154**

(excludes Base Case)

**105mm bursters (non-fuzed): 355,043**

(some of which may be included in the Base Case)

**105mm propellant: 78,031 lbs**

**4.2" mortar propellant: 60,011 lbs**