

Department of Defense
Chemical Demilitarization Program
Semi-Annual Report to Congress



**Office of the Under Secretary of Defense for Acquisition,
Technology and Logistics**

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Department of Defense (DoD) Chemical Demilitarization Program (CDP) Semi-Annual Report to Congress for September 2011

EXECUTIVE SUMMARY

As required by section 1521(j) of title 50, U.S. Code, the September 2011 Department of Defense (DoD) Chemical Demilitarization Program (CDP) Semi-Annual Report to Congress presents information describing the Department's progress toward destruction of the U.S. stockpile of lethal chemical agents and munitions by the Chemical Weapons Convention (CWC) destruction deadline of April 29, 2012, but not later than December 31, 2017, and provides the status of ongoing actions to accelerate the program.

The U.S. Army Chemical Materials Agency (CMA) is responsible for the destruction of 90 percent of the U.S. stockpile declared under the CWC located at seven sites: Johnston Atoll; Aberdeen, Maryland; Anniston, Alabama; Tooele, Utah; Pine Bluff, Arkansas; Newport, Indiana; and Umatilla, Oregon. The Assembled Chemical Weapons Alternatives (ACWA) program is responsible for destroying the remaining 10 percent of the declared chemical weapons stockpile located at Pueblo, Colorado, and Blue Grass, Kentucky.

As of August 14, 2011, the CMA sites have destroyed 88.5 percent of the U.S. chemical weapons stockpile declared when the CWC entered into force. Destruction operations at Johnston Atoll; Aberdeen, Maryland; Newport, Indiana; and Pine Bluff, Arkansas, were completed in 2000, 2006, 2008, and 2010, respectively. The Alabama, Utah, and Oregon CMA sites are on track to complete destruction operations before the CWC destruction deadline, utilizing performance incentives and risk mitigation actions.

On June 14, 2011, the Department certified a restructured ACWA program to Congress, pursuant to section 2433a of title 10, U.S. Code. The ACWA program destruction sites at Colorado and Kentucky are currently under construction. The Department continues to move the ACWA program forward and evaluate options to improve overall schedule and reduce costs as practicable.

The Department will continue working to minimize the time required to complete destruction of the remaining chemical weapons stockpile without sacrificing safety and security.

Chemical Demilitarization Program Semi-Annual Report to Congress September 2011

INTRODUCTION

This report provides: (1) the Department's progress toward destruction of the U.S. stockpile of lethal chemical agents and munitions by the Chemical Weapons Convention (CWC) destruction deadline of April 29, 2012, but not later than December 31, 2017; and (2) the status of ongoing actions to accelerate the program.

REPORTING REQUIREMENTS

Section 1521(j) of title 50, U.S. Code, includes a semi-annual reporting requirement on the implementation by the United States of its chemical weapons destruction obligations under the CWC.

OPTIONS AND ALTERNATIVES FOR ACCELERATING DESTRUCTION

Starting in 2008, the Department conducted assessments to define options and alternatives for accelerating destruction of the remaining chemical weapons stockpile by the 2012 CWC deadline, but not later than the 2017 congressionally mandated deadline. The Department identified for evaluation three options to destroy the remaining chemical weapons stockpile: (1) provide performance incentives to ensure destruction is complete at CMA sites by April 29, 2012; (2) transport portions of the stockpile to operational chemical weapons destruction facility locations; and (3) accelerate the ACWA program sites' destruction schedules, such as through supplemental use of Explosive Destruction Technology (EDT). The Department concluded that no realistic options are available to destroy the complete U.S. stockpile by the CWC deadline of April 2012. The only option with any reasonable probability of success to achieve the congressionally mandated destruction deadline of 2017 was transportation of the stockpile to currently operating destruction facilities; however, this option is currently precluded by law and, as assessed in 2011, no longer provides a significant schedule benefit due to CMA destruction progress.

Semi-Annual Report under 50 U.S.C. 1521(j)

The report shall include:

- The anticipated schedule at the time of such report for the completion of destruction of chemical agents, munitions, and materiel at each chemical weapons demilitarization facility in the United States;
- A description of the options and alternatives for accelerating the completion of chemical weapons destruction at each such facility, particularly in time to meet the stockpile elimination deadline (currently 2017);
- A description of the funding required to achieve each of the options for accelerated destruction, and a detailed life-cycle cost estimate for each of the affected facilities included in each such funding profile; and
- A description of all actions being taken by the United States to accelerate the destruction of its entire stockpile of chemical weapons, agents, and materiel in order to meet the current April 29, 2012, destruction deadline under the CWC, or as soon thereafter as possible.

As reflected in the FY 2012 President’s Budget Request, the DoD way ahead continues to: (1) use performance incentives and risk mitigation actions to facilitate destruction operations at CMA sites by April 29, 2012; and (2) move the ACWA program forward and evaluate options to improve the overall schedule and reduce costs as practicable.

LIFE CYCLE COSTS AND DESTRUCTION SCHEDULE ESTIMATES

In December 2010, the acting Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)) notified Congress, pursuant to section 2433a of title 10, U.S. Code, which is commonly referred to as Nunn-McCurdy, of a Program Acquisition Unit Cost increase for the ACWA Program. Following a rigorous and lengthy review mandated by Nunn-McCurdy, the USD(AT&L) certified a restructured ACWA program to Congress on June 14, 2011. The restructured program maintains current destruction technologies (neutralization followed by on-site secondary waste treatment), considers supplemental use of EDT, and continues to evaluate options to improve overall schedule and cost.

The review determined that the root cause of the ACWA program cost-estimate increase was the establishment of the April 2007 Acquisition Program Baseline cost and schedule estimates when designs were incomplete and did not account for program uncertainty and complexity. With designs for the Blue Grass, Kentucky, and Pueblo, Colorado, sites now complete and construction underway, a substantially better understanding of the ACWA program costs has been realized. The Department now estimates that the ACWA program life-cycle cost will increase from the April 2007 Acquisition Program Baseline cost estimate of \$8.0 billion to \$10.6 billion. The USD(AT&L) has directed the submittal of a revised Acquisition Program Baseline for approval later this year and will exercise increased oversight to ensure the restructured ACWA program executes to its new cost estimate.

Tables 1 and 2 are the program cost and schedule estimates for the CDP.

Table 1. CDP Cost Estimate (Then Year \$M)

Project/ FY	Prior	FY11	FY12	FY13	FY14	FY15	FY16	To Complete	Total
CMA	19,214.4	1,081.4	1,152.7	873.3	734.3	280.7	197.4	909.0	24,443.2
ACWA	2,854.6	510.9	477.1	TBD	TBD	TBD	TBD	TBD	10,618.0
Total	22,069.0	1,592.3	1,629.8	TBD	TBD	TBD	TBD	TBD	35,061.2

CMA – U.S. Army Chemical Materials Agency ACWA – Assembled Chemical Weapons Alternatives

Note: CMA cost estimates are based on the December 2010 Selected Acquisition Report (SAR). The ACWA program cost estimates will be updated upon submission of a revised Acquisition Program Baseline and final approval by the USD(AT&L) later this year. ACWA’s total life cycle cost estimate reflects what was reported to Congress on June 14, 2011, as part of the certification process.

Table 2. CDP Schedule Estimate

Milestone	CMA			ACWA	
	TOCDF	ANCDF	UMCDF	PCAPP	BGCAPP
Begin Operations	Aug-96	Aug-03	Sep-04	TBD	TBD
Complete Operations	Feb-12	Jul-11	Apr-12	TBD	TBD

TOCDF – Toole Chemical Agent Disposal Facility ANCDF – Anniston Chemical Agent Disposal Facility
 UMCDF – Umatilla Chemical Agent Disposal Facility PCAPP – Pueblo Chemical Agent-Destruction Pilot Plant
 BGCAPP – Blue Grass Chemical Agent-Destruction Pilot Plant

Note: Current CMA schedule estimates are based on the December 2010 SAR. The ACWA program schedule estimates will be updated upon submission of a revised Acquisition Program Baseline and final approval by the USD(AT&L) later this year.

ONGOING ACTIONS TO ACCELERATE DESTRUCTION

The Department continues to review technical possibilities to eliminate portions of the chemical weapons stockpile using EDT at the Pueblo, Colorado, and the Blue Grass, Kentucky, sites. EDT may be considered as a supplement to the planned neutralization technology for destroying problematic mustard-filled munitions, such as overpacked and reject munitions, as well as a limited number of other items based on lessons learned from other destruction sites. This will aid in mitigating program risk, enhance workforce safety, and help to complete destruction operations as close to the December 31, 2017, congressionally mandated deadline as practicable.

CONCLUSION

The Department is on schedule to achieve destruction of 90 percent of its stockpile by April 2012. While the current DoD way ahead is not expected to accommodate the December 31, 2017, congressionally mandated destruction deadline, the Department will continue to look for opportunities to expedite the safe and secure elimination of the remaining chemical weapons stockpile.