

**Department of Defense Report
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 2010

EXECUTIVE SUMMARY

As required by section 8119 of the Department of Defense Appropriations Act, 2008 (Public Law (PL) 110-116) and section 922(c) of the National Defense Authorization Act for FY 2008 (PL 110-181), the September 2010 Department of Defense (DoD) Chemical Demilitarization Program (CDP) Semi-Annual Report to Congress presents information describing DoD's progress toward destruction of the U.S. stockpile of lethal chemical agents and munitions by the Chemical Weapons Convention (CWC) deadline of April 29, 2012, but not later than December 31, 2017, and provides the status of on-going 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 locations: 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 Chemical Depot, Colorado, and Blue Grass Army Depot, Kentucky.

As of September 26, 2010, the CMA sites have destroyed 79.8 percent of the U.S. chemical weapons stockpile declared when the CWC entered into force. Destruction operations at Johnston Atoll; Aberdeen Proving Ground, Maryland; and Newport, Indiana were completed in 2000, 2006, and 2008, respectively. The remaining four CMA sites are on track to complete destruction operations before the Treaty deadline and slightly ahead of estimates reported in the December 2009 Selected Acquisition Report. Destruction facilities at Pueblo and Blue Grass are currently under construction.

The DoD continues to: (1) be on pace toward CMA completing destruction operations at each of the four facilities (Alabama, Utah, Oregon and Arkansas) where CMA is responsible for the destruction of the stockpile. This stockpile is currently being destroyed utilizing performance incentives and risk mitigation actions; and (2) accelerate the ACWA Program schedule toward completing destruction of an additional eight percent of the U.S. stockpile at Pueblo in 2017 and the remaining two percent of the U.S. stockpile at Blue Grass in 2021.

The DoD will continue working to minimize the time required to complete destruction of the remaining chemical weapons stockpile, without sacrificing safety and security, through the continued use of performance incentives and risk mitigation efforts. The acceleration of the destruction of the stockpile at CMA's facilities has resulted in further shortening of the schedule and projected life cycle cost reductions.

Chemical Demilitarization Program Semi-Annual Report to Congress September 2010

INTRODUCTION

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

REPORTING REQUIREMENTS

- Section 8119(b) of the Department of Defense Appropriations Act, 2008 (PL 110-116) requires that not later than December 31, 2007, and every 180 days thereafter, the Secretary of Defense shall submit a report on the progress of the DoD toward compliance with destruction of the U.S. stockpile of lethal chemical agents and munitions, including those stored at Blue Grass Army Depot, Kentucky, and Pueblo Chemical Depot, Colorado, by the deadline established by the CWC, and in no circumstances later than December 31, 2017.

- Section 922(c) of the National Defense Authorization Act for FY 2008, (PL 110-181) requires not later than March 15, 2008, and every 180 days thereafter until the year in which the U.S. completes the destruction of its entire stockpile of chemical weapons under the terms of the CWC, the Secretary of Defense shall submit a report on the implementation by the U.S. of its chemical weapons destruction obligations under the CWC.

Section 8119(b) of Public Law 110-116

The report shall include:

- Updated and projected annual funding levels necessary to achieve full compliance with this section.
- Projected funding levels for each report shall include a detailed accounting of the complete life-cycle costs for each of the chemical disposal projects.

Section 922(c) of Public Law 110-181

The report shall include:

- Projected funding levels for each report shall include a detailed accounting of the complete life-cycle costs for each of the chemical disposal projects. 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 U.S.
- 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 destruction deadline of April 29, 2012, currently provided by the CWC, and by December 31, 2017.
- A description of the funding required to achieve each of the options for destruction described under paragraph (2), and a detailed life-cycle cost estimate for each of the affected facilities included in each such funding profile.
- A description of all actions being taken by the U.S. to accelerate the destruction of its entire stockpile of chemical weapons, agents, and materiel in order to meet the current destruction deadline under the CWC of April 29, 2012, or as soon thereafter as possible.

The April 2008 semi-annual report informed Congress that the DoD would consolidate PLs 110-116 and 110-181 report requirements into a single report and report every six months (March and September). This is the second consolidated report submitted to Congress.

DoD PATH FOR DESTRUCTION COMPLETION

In 2008, the DoD conducted assessments to define alternatives for destroying the remaining chemical weapons stockpile by the 2012 CWC deadline, but not later than the 2017 congressionally mandated deadline. DoD identified 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. The DoD completed the assessment in 2009 and concluded no realistic options are available to destroy the complete U.S. stockpile by the CWC deadline of April 2012. In addition, 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.

As reported in the May 2009 CDP Semi-Annual Report to Congress and as reflected in the FY 2011 President's Budget Request, the DoD path forward is to: (1) aim towards CMA completing destruction operations by April 29, 2012, utilizing performance incentives and risk mitigation actions; and (2) accelerate the ACWA Program schedule milestones from its Acquisition Program Baseline by working toward completing destruction of the Colorado stockpile on-site by 2017 and the Kentucky stockpile on-site by 2021.

Table 1 and 2 are the program cost and schedule estimates as reflected in the FY 2011 President's Budget Request and the December 2009 SAR.

Table 1. CDP FY11 President's Budget Request Cost Estimate (Then Year \$M)

Project/ FY	Prior	FY10	FY11	FY12	FY13	FY14	FY15	To Complete	Total
CMA	18,110.4	1,162.1	1,081.4	1,154.9	1,163.6	1,175.8	1,045.2	861.1	25,754.5
ACWA	2,252.2	550.2	510.9	470.8	503.0	518.8	677.7	2,868.7	8,352.3
Total	20,362.6	1,712.3	1,592.3	1,625.7	1,666.6	1,694.6	1,722.9	3,729.8	34,106.8

CMA – U.S. Army Chemical Materials Agency

ACWA – Assembled Chemical Weapons Alternatives

Table 2. CDP December 2009 SAR Schedule Estimate

	CMA				ACWA	
	TOCDF	ANCDF	UMCDF	PBCDF	PCAPP	BGCAPP
Begin Operations	Aug-96	Aug-03	Sep-04	Mar-05	Jun-14	Oct-18
Complete Operations	Jan-12	Feb-12	Jan-12	Nov-10	Sep-17	May-21

TOCDF – Toole Chemical Agent Disposal Facility
 ANCDF – Anniston Chemical Agent Disposal Facility
 UMCDF – Umatilla Chemical Agent Disposal Facility

PBCDF – Pine Bluff Chemical Agent Disposal Facility
 PCAPP – Pueblo Chemical Agent-Destruction Pilot Plant
 BGCAPP – Blue Grass Chemical Agent-Destruction Pilot Plant

Note: Current estimate based on the December 2009 Semi-Annual Report to Congress and consistent with the PM's FY10 Current Working Estimate.

ONGOING ACTIONS TO ACCELERATE DESTRUCTION

The DoD continues to review technical possibilities to eliminate portions of the ACWA Program chemical weapons stockpile earlier than current plans. The May 2009 Semi-Annual Report identified the use of Explosive Destruction Technologies (EDTs) at the Kentucky site as a possible option to accelerate destruction efforts. An EDT could be used for problematic chemical munitions as a supplement to the neutralization destruction operations. The Program continues to develop and evaluate options that will safely and efficiently accelerate the program.

The Colorado site has long-planned to utilize an EDT to destroy existing overpacked (leaking or previously sampled munitions) munitions and rejects (those munitions introduced into the process and found to be unsuitable for processing by the plant's automated destruction equipment). The original estimate was approximately 1,000 munitions, but is now likely to be greater as suggested by the experience of the U.S. Army Chemical Materials Agency. DoD continues to analyze the use of EDT during the ACWA destruction schedule to destroy overpacked and reject munitions, as well as a limited number of other items to mitigate program risk and to increase confidence in meeting the December 2017 congressionally mandated destruction deadline. DoD is also conducting an analysis under the National Environmental Policy Act.

CONCLUSION

The DoD is on pace to achieve destruction of 90 percent of its stockpile by April 2012, 98 percent destruction by 2017, and 100 percent destruction by 2021. While DoD's current path forward is not able to accommodate the December 31, 2017, deadline, DoD will continue to look for opportunities to eliminate the remaining chemical weapons stockpile ahead of current schedules without sacrificing safety and security.