

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



June 2008 Submission

Department of Defense (DoD) Chemical Demilitarization Program (CDP) Semi-Annual Report to Congress for June 2008

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 Fiscal Year 2008 (PL 110-181), the June 2008 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, and not later than December 31, 2017. This report provides preliminary findings from assessments conducted to identify options to accelerate destruction of the remaining chemical weapons stockpile.

As of June 15, 2008, 54 percent of the U.S. stockpile has been destroyed. The U.S. Army Chemical Materials Agency (CMA) is responsible for the destruction of 90 percent of the U.S. stockpile at seven locations: Johnston Atoll; Aberdeen, Maryland; Anniston, Alabama; Tooele, Utah; Pine Bluff, Arkansas; Newport, Indiana; and Umatilla, Oregon. Destruction operations at Johnston Atoll and Aberdeen, Maryland were completed in 2000 and 2006, respectively. CMA continues to show encouraging progress toward completing its mission ahead of current schedule estimates by implementing numerous risk mitigation actions and contract incentives for its facilities. The Assembled Chemical Weapons Alternatives (ACWA) Program is responsible for destroying the remaining 10 percent of the original chemical weapons stockpile located at Pueblo Chemical Depot, Colorado, and Blue Grass Army Depot, Kentucky. Destruction facilities at these two locations are currently under construction.

On January 24, 2008, the DoD submitted the first semi-annual report in accordance with PL 110-116. The DoD submitted the first semi-annual report in accordance with PL 110-181 on April 3, 2008. The April 2008 semi-annual report informed Congress the DoD would consolidate PL 110-116 and PL 110-181 report requirements into a single report and report every six months beginning with this June 2008 submission.

Three options have been identified as possible paths forward for accelerating destruction of the remaining chemical weapons stockpile. The options are: 1) to provide schedule incentives to ensure destruction is complete by 2012 at CMA sites; 2) to transport portions of the stockpile to operational chemical weapons destruction facility locations; and 3) to accelerate the ACWA Program sites destruction schedule. The DoD is conducting a schedule assessment of the ACWA Program acceleration option. The

results of the review will be provided to Congress with the FY 2010 President's Budget request.

While the DoD continues working to minimize the time to complete destruction of the remaining chemical weapons stockpile without sacrificing safety and security, the current approved CDP cost and schedule estimates are based on actual experiences, lessons learned, and adjustments associated with implementation of this most challenging program.

Chemical Demilitarization Program Semi-Annual Report to Congress June 2008

INTRODUCTION

This report provides 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.

REPORTING REQUIREMENT

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. The report shall include the following:

- (1) Updated and projected annual funding levels necessary to achieve full compliance with this section
- (2) 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 the National Defense Authorization Act for Fiscal Year 2008, (PL 110-181) requires that:

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. The report shall include the following:

- (1) 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.
- (2) 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.

(3) 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.

(4) 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.

On January 24, 2008, the DoD submitted the first semi-annual report in accordance with PL 110-116. The DoD submitted the first semi-annual report in accordance with PL 110-181 on April 3, 2008. 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 beginning with this June 2008 submission. The CDP schedule and cost estimates shown in Tables 1 and 2 below are the current approved acquisition program baseline, which do not yet reflect acceleration options currently under review.

SCHEDULE - Current Approved Acquisition Program Baseline (APB) Schedule

	TOCDF	ANCDF	UMCDF	PBCDF	NECDF	PCAPP	BGCAPP
Begin Construction	Oct-89	Feb-96	Feb-97	Feb-99	Nov-00	Aug-04	Sep-05
Begin Operations	Aug-96	Aug-03	Sep-04	Mar-05	May-05	Jan-15	Jan-17
Complete Operations	Sep-15	Jun-16	Mar-17	Nov-15	Feb-12	Nov-20	Oct-23
Complete Closure	Aug-20	May-21	Feb-22	Sep-20	May-15	Oct-24	Aug-27

Table 1. CDP Schedule

TOCDF – Toole Chemical Agent Disposal Facility PBCDF – Pine Bluff Chemical Agent Disposal Facility
 ANCDF – Anniston Chemical Agent Disposal Facility NECDF – Newport 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

COST - Current Approved APB Life Cycle Cost Estimate (Then Year \$M)

Project/ FY	Prior Years	07	08	09	10	11	12	13	To Complete	Total
CMA	14,773.0	1,054.3	1,209.9	1,222.4	1,265.2	1,174.0	1,140.8	1,135.3	4,993.3	27,968.2
ACWA	1,066.5	349.2	407.1	397.5	301.0	265.5	321.9	349.9	4,507.4	7,966.0
Total	15,839.5	1,403.5	1,617.0	1,619.9	1,566.2	1,439.5	1,462.7	1,485.2	9,500.7	35,934.2

Table 2. CDP Approved APB

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

OPTIONS FOR ACCELERATION

In November 2007, the DoD directed the U.S. Army Chemical Material Agency (CMA) and the Program Manager, Assembled Chemical Weapons Alternatives (PM ACWA) to identify and assess options for destroying the remaining chemical weapons stockpile by the CWC extended deadline of 2012, but not later than 2017. The parameters established for the assessment were:

- Evaluate options to destroy the national stockpile as close to April 29, 2012, as possible
- Evaluate options to destroy the Pueblo, Colorado and Blue Grass, Kentucky stockpiles by December 31, 2017

PRELIMINARY ASSESSMENT

There are no options to achieve 100 percent destruction of the national stockpile by the 2012 deadline. Three technically viable approaches for accelerating the destruction of the remaining chemical weapons were identified. They are 1) performance incentives, 2) transport portions of the stockpile to operational destruction facilities, and 3) accelerate ACWA Program schedules. The preliminary findings for each option are based on initial CMA and PM ACWA assessments, and are under review by the DoD.

- Performance Incentives – provide schedule incentives authorized by Congress in section 923 of PL 109-364 to ensure destruction operations are complete by 2012 at CMA sites.

Preliminary Findings:

- o On track for destruction of CMA's portion (90 percent) of the stockpile by 2012
- o Will not meet the 2017 destruction deadline for the remaining 10 percent of the stockpile

- Transport Portions of the Stockpile to Operational Chemical Weapons Destruction Facilities (CWDFs) Locations - Transport Kentucky, Colorado, and a portion of Oregon stockpiles to locations with operating CWDFs.

Preliminary Findings:

- o Destruction of the entire stockpile by December 2017 does appear possible, but the confidence is low based on the following:
 - Requires a change to section 1512a of title 50 United States Code, to allow transportation of chemical munitions across states borders
 - Requires a change in the law to address Federal and State environmental requirements

- Requires modification of hazardous waste permits for the operating CWDFs receiving munitions from other sites
 - Requires movement of chemical munitions for a period of three years:
 - Colorado stockpile to Utah and Oregon
 - Kentucky stockpile to Alabama and Arkansas
 - Oregon bulk-chemical agent storage containers to Utah
 - Requires construction of a neutralization facility at the Deseret Chemical Depot, Utah to destroy the bulk items transported from Oregon as well as those existing in the current stockpile
 - Requires cancellation of military construction projects at the Kentucky and Colorado sites
- Accelerate ACWA Sites Destruction Schedule - Accelerate the ACWA Colorado and Kentucky CWDFs phases to get as close to 2017 as practicable.

Preliminary Findings:

- Destruction of the Colorado stockpile by December 2017 does appear possible, but the confidence of accomplishing this goal remains under study
- Destruction of the Kentucky stockpile by December 2017 does not appear possible, but remains under study
- Requires the use of two alternative destruction technologies for the destruction of the Kentucky stockpile – the explosive destruction technology for the mustard-filled munitions and the neutralization process for the remaining stockpile
- Requires increases in staffing at Colorado and Kentucky sites:
 - for the construction phase
 - for early start of the systemization phase
 - to support 24 hours per day at 7 days per week destruction operations

ONGOING ACTIONS TO ACCELERATE DESTRUCTION

The DoD is conducting a schedule assessment of the ACWA acceleration option. The results of the review will be provided to Congress with the FY 2010 President's Budget request.