



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-243



**U.S. Army Element, Assembled
Chemical Weapons Alternatives**

CHEM DEMIL-ACWA

As of December 31, 2010

Defense Acquisition Management
Information Retrieval
(DAMIR)

UNCLASSIFIED

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Program Information

Designation And Nomenclature (Popular Name)

Chemical Demilitarization-Assembled Chemical Weapons Alternatives (Chem Demil-ACWA)

DoD Component

DoD

Responsible Office

Responsible Office

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Date Assigned December 19, 2010

References

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated March 31, 1998

Approved APB

DAE Approved Acquisition Program Baseline (APB) dated April 3, 2007

Mission and Description

The U.S. Army Element (USAE), Assembled Chemical Weapons Alternatives (ACWA) is performing a portion of the chemical warfare materiel elimination mission. In 1996, Congress and the President, responding to public concerns about the safe destruction of chemical weapons, established and later expanded the ACWA program (Public Laws 104-208, 105-261, 106-79 and 107-248). Through ACWA, the Department of Defense was charged with identifying and demonstrating two or more alternative technologies to incineration for the destruction of assembled chemical weapons. The Defense Acquisition Executive assigned Program Manager (PM) ACWA the responsibility for developing neutralization technologies to eliminate the chemical weapons stockpiles located at Pueblo, CO, and Blue Grass, KY (July 16, 2002, and February 3, 2003, respectively). At time of initiation, the ACWA program was known as the Assembled Chemical Weapons Assessment program. When the assessment phase was complete, ACWA shifted its focus from assessing chemical weapons disposal technologies to implementing full-scale pilot testing. As a result, the program was renamed Assembled Chemical Weapons Alternatives in June 2003, to better reflect the new program goals.

Executive Summary

This Selected Acquisition Report (SAR) details impacts to cost, schedule, and performance since last reported in the September 2010 quarterly exception SAR for Chemical Demilitarization-Assembled Chemical Weapons Alternatives (Chem Demil-ACWA). This SAR addresses deviations from the April 2007 Acquisition Program Baseline (APB), which resulted in a critical Nunn-McCurdy cost breach determination and notification to Congress on December 16, 2010. Although the as-of date for this report is technically December 31, 2010, where possible, significant events that have occurred since that date are included to provide the most current and timely information available.

On June 7, 2010, the Program Manager, Assembled Chemical Weapons Alternatives (PM ACWA) reported a significant cost deviation from the cost parameters contained in the April 2007 Acquisition Program Baseline (APB). Specifically, based on the 2010 Program Office Estimate (POE), the Program Acquisition Unit Cost exceeded the objective cost in the APB by 21.67 percent. On July 21, 2010, the Under Secretary of Defense for Acquisition, Technology and Logistics (USD[AT&L]) notified Congress of a significant Nunn-McCurdy breach determination and directed an independent cost assessment by the OSD Cost Analysis and Program Evaluation (CAPE) office. A September 2010 quarterly exception SAR was submitted to Congress on November 14, 2010.

Based on the results of the OSD CAPE independent assessment, the USD(AT&L) notified Congress of a critical Nunn-McCurdy breach determination on December 16, 2010. As such, the Department initiated the Nunn-McCurdy review process on January 18, 2011. In accordance with section 2433 of title 10, United States Code, the Department will determine the root cause of the critical cost growth and conduct an assessment of the projected cost of completing the program. The information in this SAR reflects the cost and schedule estimates that are currently under review in the Nunn-McCurdy review process. The final, revised estimates will be available in the 4th Quarter FY 2011.

On November 8, 2010, the PM ACWA accepted a new position. The effective date for the reassignment was December 19, 2010. Until the PM ACWA position is officially filled, the Director, U.S. Army Chemical Materials Agency is the Acting PM ACWA.

PUEBLO CHEMICAL AGENT-DESTRUCTION PILOT PLANT (PCAPP):

PCAPP is a fixed-base, single-use system designed to perform or address all necessary steps for destruction of the stockpile of chemical weapons in storage at Pueblo Chemical Depot (PCD), CO.

Construction (77 percent complete as of February 2011) continues on PCAPP Agent Processing Building, Enhanced Reconfiguration Building (ERB) and Control Support Building. Workers are adding concrete equipment foundations and installing electrical and heating, ventilation and air conditioning systems in the balance of facilities. As of February 2011, the construction crew turned over the following systems to the systemization group: Utility Building 480V substation, Agent Processing Building 480V substation, site water (underground loop and above ground feeds), natural gas (underground header and above ground feeds), fire protection (underground loop and hydrants), Agent Processing Building motor control center power, Control and Support Building motor control center power, Agent Filtration Area instrument and plant air, electrical power distribution system, Utility Building motor control center power and NETA (International Electrical Testing Association) testing for power calibration. Construction is expected to be completed by March 2012.

Testing continues on site-specific first-of-a-kind (FOAK) equipment production units, to include the munitions washout system and linear projectile/mortar disassembly (LPMD) machines. Final delivery of the three LPMD

systems to the site occurred in December 2010; assembly and installation in the ERB is ongoing. LPMD operations at the Anniston Chemical Agent Disposal Facility (ANCDF) continued with the 155mm HD mustard projectile campaign which began February 9, 2011. This is the final of three campaigns planned. A total of 20,431 105mm HD projectiles were processed during the previous campaign, which completed on February 2, 2011. Upon completion of LPMD operations in March 2011 at ANCDF, the LPMD equipment will be shipped to PCAPP for training and operations.

Anomalies were found in the surface coating of three Immobilized Cell Bioreactor (ICB) pads in the PCAPP Biotreatment Area. On October 7, 2010, representatives of the Colorado Department of Public Health and Environment (CDPHE) Hazardous Materials and Waste Management Division met with PCAPP officials concerning remedial actions. Quality assurance/quality control (QA/QC) records indicated that repairs were made; however, removal of the ICBs revealed that the stated repairs were not made or were ineffective. On October 20, 2010, the CDPHE issued a Compliance Advisory to the Systems Contractor (SC). On November 17, 2010, at the compliance conference, the SC presented a corrective action plan to the CDPHE. The CDPHE accepted the plan and, on January 20, 2011, delivered a compliance order to the SC with proposed fines of \$42,000. All CDPHE requirements were met by the SC prior to the March 19, 2011 deadline.

Oak Ridge National Laboratory is preparing the new Environmental Assessment (EA) for use of the EDT, which will supplement the 2002 PCAPP Final Environmental Impact Statement. ACWA, the CDPHE, and the Environmental Protection Agency, Region 8 met on October 26, 2010 to establish a path forward for the development of the EA. Topics discussed at the meeting included the environmental impact of using an EDT, modeling considerations, and use of a Multi-Pathway Health Risk Assessment. The EA is expected to be completed by 1st Quarter FY 2012.

The State of Colorado filed suit against the Army in September 2008 to enforce a compliance schedule which meets the 2017 destruction deadline established by Congress to destroy chemical weapons stored at PCD. In October 2009, a federal judge ruled that a state does not have the right to preempt deadlines set by federal law. The State of Colorado appealed the ruling in December 2009 and, on November 17, 2010, presented oral arguments on the appeal to the 10th Circuit Court of Appeals. Currently, the Army maintains that the State does not have the authority to enforce the deadline. A written decision is expected from the Circuit Court.

BLUE GRASS CHEMICAL AGENT-DESTRUCTION PILOT PLANT (BGCAPP):

BGCAPP is a fixed-base, single-use system designed to perform or address all necessary steps for destruction of the stockpile of chemical weapons in storage at Blue Grass Army Depot (BGAD), KY.

Total construction is 31 percent complete as of February 2011. Construction continues on the Munitions Demilitarization Building (MDB), Control and Support Building (CSB), Utility Building, underground utilities, and the Supercritical Water Oxidation Processing Building (SPB). In November 2010, the completed fire water pump house was turned over to the systemization team, which is responsible for equipment testing and personnel training. Fabrication and testing of site-specific FOAK are underway as construction crews prepare for the second elevation of the energetics batch hydrolyzer room in the MDB. Crews are also placing equipment pads in the SPB, installing cable trays in the CSB, and completing dry wall installation in the Utility Building. Future FOAK equipment testing includes the SCWO, Rocket Cutter/Shear machines, and Munitions Washout System in 2012.

ACWA requested CMA to conduct an investigation of a representative sample of the mustard munitions stored at Blue Grass Army Depot, KY in 2011, using the Non-Stockpile Chemical Materiel Project's X-ray technology. The assessment will examine 96 H mustard projectiles to determine the extent of solidification and examine approximately 79 overpacked leakers to determine their condition for plant processing. The results of this H mustard projectile assessment will provide critical data necessary to facilitate the future destruction of these items and will be used to assure the safe handling of these overpacked munitions during demilitarization operations. In January 2011, the Kentucky Department for Environmental Protection issued approval for the X-ray investigative work. In February 2011 the overpacking and isolation process began with 32 projectiles being selected thus far. This containerization of rounds will support the X-ray investigative work which is planned for 3rd Quarter FY 2011.

ACWA, working collaboratively over the past year with CMA, is finalizing plans for the reuse of specialized containers used to transport munitions from storage igloos to the demilitarization plant. The transport of these Enhanced On-Site Containers (EONCs) from facilities at Pine Bluff Arsenal (PBA) and Anniston Army Depot to BGAD have begun and will be used during actual operations. BGAD received its first EONC from PBA on January 20, 2011.

Threshold Breaches

APB Breaches

Schedule		<input checked="" type="checkbox"/>
Performance		<input type="checkbox"/>
Cost	RDT&E	<input checked="" type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input checked="" type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
Unit Cost	PAUC	<input checked="" type="checkbox"/>
	APUC	<input type="checkbox"/>

Explanation of Breach

The schedule, cost, and unit cost breaches were reported in previous SARs. A significant Nunn McCurdy breach was reported in the September 2010 quarterly exception SAR. On December 16, 2010, the USD(AT&L) notified Congress of a critical Nunn-McCurdy breach determination. On January 18, 2011, the Department initiated the Nunn McCurdy review process. The final, revised cost and schedule estimates will be available in the fourth quarter FY 2011.

Nunn-McCurdy Breaches

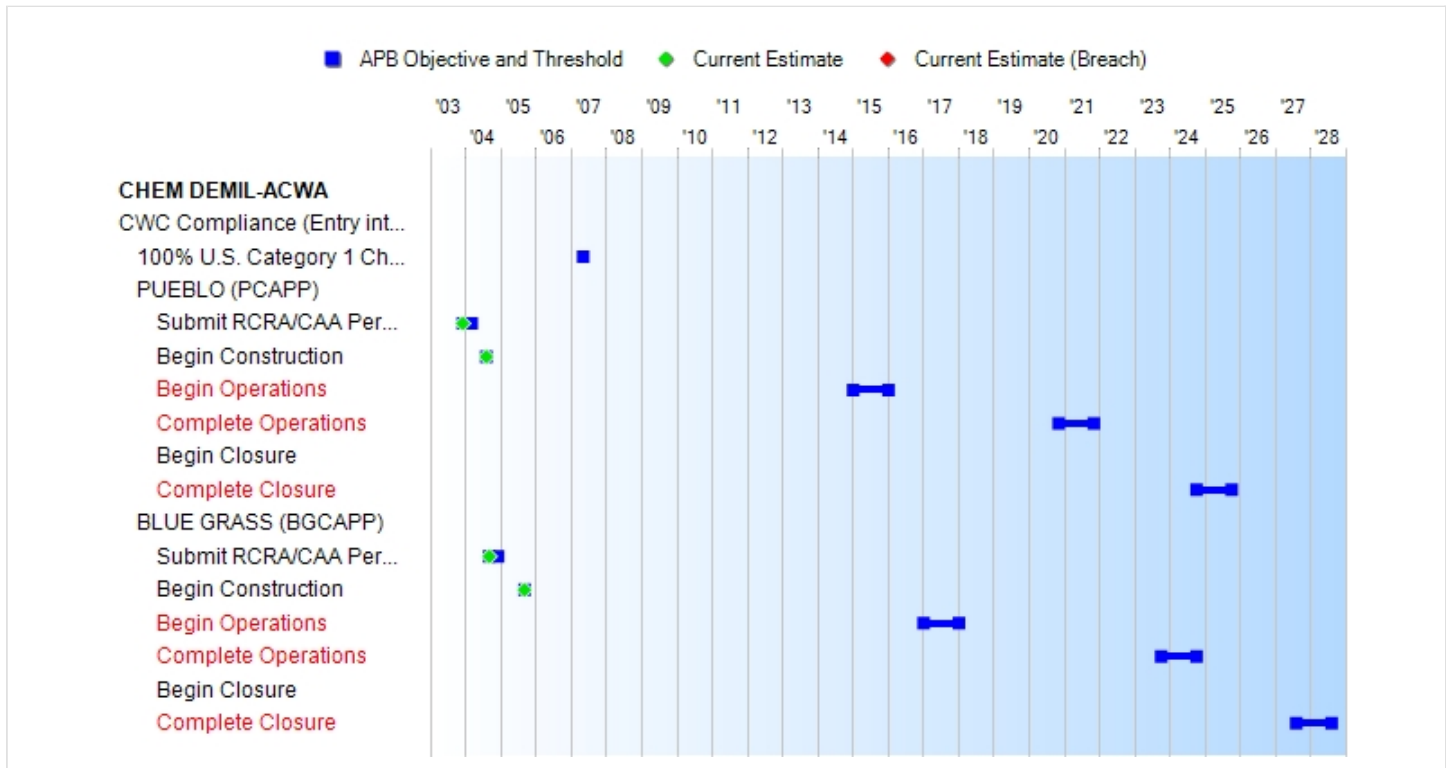
Current UCR Baseline

PAUC	Critical
APUC	None

Original UCR Baseline

PAUC	Significant
APUC	None

Schedule



Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	
CWC Compliance (Entry into Force 29 APR 97)					
100% U.S. Category 1 Chemical Weapons Destroyed	MAY 2007	N/A	N/A	N/A	
PUEBLO (PCAPP)					
Submit RCRA/CAA Permit Applications	OCT 1995	DEC 2003	MAR 2004	DEC 2003	
Begin Construction	TBD	AUG 2004	AUG 2004	AUG 2004	
Begin Operations	TBD	JAN 2015	JAN 2016	TBD ¹	(Ch-1)
Complete Operations	N/A	NOV 2020	NOV 2021	TBD ¹	(Ch-1)
Begin Closure	TBD	N/A	N/A	N/A	
Complete Closure	N/A	OCT 2024	OCT 2025	TBD ¹	(Ch-1)
BLUE GRASS (BGCAPP)					
Submit RCRA/CAA Permit Applications	DEC 1995	SEP 2004	DEC 2004	SEP 2004	
Begin Construction	TBD	SEP 2005	SEP 2005	SEP 2005	
Begin Operations	TBD	JAN 2017	JAN 2018	TBD ¹	(Ch-1)
Complete Operations	N/A	OCT 2023	OCT 2024	TBD ¹	(Ch-1)
Begin Closure	TBD	N/A	N/A	N/A	
Complete Closure	N/A	AUG 2027	AUG 2028	TBD ¹	(Ch-1)

¹APB Breach

Acronyms And Abbreviations

BGCAPP - Blue Grass Chemical Agent-Destruction Pilot Plant

CAA - Clean Air Act

CWC - Chemical Weapons Convention

PCAPP - Pueblo Chemical Agent-Destruction Pilot Plant

RCRA - Resource Conservation and Recovery Act

Change Explanations

(Ch-1) Schedule dates are to be determined (TBD). Schedule estimates for the program are being evaluated during the Nunn-McCurdy review process.

Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Environmental Laws and Regulations	Meets DoD, State, and/or Federal Reqmts	Meets DoD, State, and/or Federal Reqmts	Meets DoD, State, and/or Federal Reqmts	On Track	Meets Army, State, and/or Federal Reqmts (Note 1)
Safety and Occupational Health Laws and Regulations	Meets DoD, State, and/or Federal Reqmts	Meets DoD, State, and/or Federal Reqmts	Meets DoD, State, and/or Federal Reqmts	On Track	Meets Army, State, and/or Federal Reqmts (Note 2)
Chemical Agent Release	0	0	0	On Track	0 (Note 3)
Chemical Agent Exposure	0	0	0	On Track	0 (Note 4)

Requirements Source: Operational Requirements Document (ORD) for Chemical Stockpile Disposal Program, dated September 02, 1994

Acronyms And Abbreviations

Reqmts - Requirements

Change Explanations

None

Memo

(Note 1) "Meets Environmental Laws and Regulations" means the facility is operating in compliance with all conditions specified in environmental permits and applicable laws and regulations. The threshold is breached if violation of law or regulation warrants a stop-work order issued by the Department of Defense (DoD), the State, or the Environmental Protection Agency.

(Note 2) "Meets Safety and Occupational Health Laws and Regulations" means the facility is operating in compliance with the conditions specified in safety and occupational health laws and regulations. The threshold is breached if a violation warrants a stop-work order issued by DoD, the State, or the Occupational Safety and Health Administration.

(Note 3) Number of events. The term "chemical agent release" is defined as an event involving chemical agent-destruction pilot plants where the following occurs:

- Confirmed agent release above the general population limit (GPL) measured in accordance with the approved monitoring plan with the disposal facility as the identified source. The GPL values are:
GB - 0.000001 mg/m³
VX - 0.0000006 mg/m³

H/HD/HT - 0.00002 mg/m³

b. Confirmed point source filter bank release above the allowable threshold limit. Allowable threshold limits are calculated as vapor screening level ceiling values. The threshold limits are:

GB - 0.0001 mg/m³

VX - 0.00001 mg/m³

H/HD/HT - 0.003 mg/m³

(Note 4) Number of events. A "chemical agent exposure", as defined by Department of the Army Pamphlet (DA PAM) 40-173 and DA PAM 40-8, refers to an individual who exhibits clinical signs or symptoms of being exposed to chemical agent.

Track To Budget

RDT&E

APPN 0390 BA 02 PE 0708083D (DoD)

Chemical Agents and Munitions Destruction, Defense

MILCON

APPN 0391 BA 01 PE 0708007D (DoD)

Chemical Demilitarization Construction, Defense

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

Appropriation	BY1994 \$M			BY1994 \$M	TY \$M		
	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	0.0	4728.0	5200.8	6537.3 ¹	0.0	7071.0	9375.7
Flyaway	0.0	--	--	--	0.0	--	--
Recurring	0.0	--	--	--	0.0	--	--
Non Recurring	0.0	--	--	--	0.0	--	--
Support	0.0	--	--	--	0.0	--	--
Procurement	579.1	0.0	--	0.0	681.3	0.0	0.0
Flyaway	579.1	--	--	0.0	681.3	--	0.0
Recurring	579.1	--	--	0.0	681.3	--	0.0
Non Recurring	0.0	--	--	0.0	0.0	--	0.0
Support	0.0	--	--	0.0	0.0	--	0.0
Other Support	0.0	--	--	0.0	0.0	--	0.0
Initial Spares	0.0	--	--	0.0	0.0	--	0.0
MILCON	355.7	685.0	753.5	998.5 ¹	418.6	895.0	1331.6
Acq O&M	1022.6	0.0	--	0.0	1330.5	0.0	0.0
Total	1957.4	5413.0	N/A	7535.8	2430.4	7966.0	10707.3

¹ APB Breach

Quantity	SAR Baseline Prod Est	Current APB Production	Current Estimate
RDT&E	0	3136	3136
Procurement	0	0	0
Total	0	3136	3136

The Research, Development, Test and Evaluation quantity reflects tons of chemical agent to be disposed by ACWA. This number is 3,136 U.S. tons (881,842 munitions) and is composed of 2,613 U.S. tons (780,078 munitions) in the Pueblo stockpile and 523 U.S. tons (101,764 munitions) in the Blue Grass stockpile.

Cost and Funding**Funding Summary**

Appropriation and Quantity Summary
FY2012 President's Budget / December 2010 SAR (TY\$ M)

Appropriation	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
RDT&E	2037.4	385.9	401.8	489.1	585.7	617.4	645.1	4213.3	9375.7
Procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MILCON	817.2	125.0	75.3	79.8	92.3	90.4	43.4	8.2	1331.6
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2012 Total	2854.6	510.9	477.1	568.9	678.0	707.8	688.5	4221.5	10707.3
PB 2011 Total	2802.4	510.9	470.8	503.0	518.8	677.7	597.2	2271.5	8352.3
Delta	52.2	0.0	6.3	65.9	159.2	30.1	91.3	1950.0	2355.0

Quantity	Undistributed	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
Development	3136	0	0	0	0	0	0	0	0	3136
Production	0	0	0	0	0	0	0	0	0	0
PB 2012 Total	3136	0	0	0	0	0	0	0	0	3136
PB 2011 Total	3136	0	0	0	0	0	0	0	0	3136
Delta	0	0	0	0	0	0	0	0	0	0

Cost and Funding**Annual Funding By Appropriation****Annual Funding TY\$****0390 | RDT&E | Chemical Agents and Munitions Destruction, Defense**

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
1997	--	--	--	--	--	--	39.2
1998	--	--	--	--	--	--	4.0
1999	--	--	--	--	--	--	32.6
2000	--	--	--	--	--	--	108.3
2001	--	--	--	--	--	--	78.5
2002	--	--	--	--	--	--	22.2
2003	--	--	--	--	--	--	97.5
2004	--	--	--	--	--	--	167.4
2005	--	--	--	--	--	--	174.5
2006	--	--	--	--	--	--	52.5
2007	--	--	--	--	--	--	218.1
2008	--	--	--	--	--	--	305.7
2009	--	--	--	--	--	--	283.2
2010	--	--	--	--	--	--	453.7
2011	--	--	--	--	--	--	385.9
2012	--	--	--	--	--	--	401.8
2013	--	--	--	--	--	--	489.1
2014	--	--	--	--	--	--	585.7
2015	--	--	--	--	--	--	617.4
2016	--	--	--	--	--	--	645.1
2017	--	--	--	--	--	--	520.1
2018	--	--	--	--	--	--	512.8
2019	--	--	--	--	--	--	576.6
2020	--	--	--	--	--	--	577.6
2021	--	--	--	--	--	--	469.5
2022	--	--	--	--	--	--	441.1
2023	--	--	--	--	--	--	389.7
2024	--	--	--	--	--	--	339.2
2025	--	--	--	--	--	--	190.1
2026	--	--	--	--	--	--	149.1
2027	--	--	--	--	--	--	47.5
Subtotal	3136	--	--	--	--	--	9375.7

Annual Funding BY\$

0390 | RDT&E | Chemical Agents and Munitions Destruction, Defense

Fiscal Year	Quantity	End Item Recurring Flyaway BY 1994 \$M	Non End Item Recurring Flyaway BY 1994 \$M	Non Recurring Flyaway BY 1994 \$M	Total Flyaway BY 1994 \$M	Total Support BY 1994 \$M	Total Program BY 1994 \$M
1997	--	--	--	--	--	--	36.6
1998	--	--	--	--	--	--	3.6
1999	--	--	--	--	--	--	29.5
2000	--	--	--	--	--	--	97.3
2001	--	--	--	--	--	--	69.7
2002	--	--	--	--	--	--	19.5
2003	--	--	--	--	--	--	85.3
2004	--	--	--	--	--	--	143.1
2005	--	--	--	--	--	--	145.1
2006	--	--	--	--	--	--	42.4
2007	--	--	--	--	--	--	172.0
2008	--	--	--	--	--	--	236.2
2009	--	--	--	--	--	--	216.4
2010	--	--	--	--	--	--	342.5
2011	--	--	--	--	--	--	287.4
2012	--	--	--	--	--	--	294.8
2013	--	--	--	--	--	--	353.0
2014	--	--	--	--	--	--	415.6
2015	--	--	--	--	--	--	430.8
2016	--	--	--	--	--	--	442.6
2017	--	--	--	--	--	--	350.9
2018	--	--	--	--	--	--	340.2
2019	--	--	--	--	--	--	376.1
2020	--	--	--	--	--	--	370.5
2021	--	--	--	--	--	--	296.1
2022	--	--	--	--	--	--	273.5
2023	--	--	--	--	--	--	237.6
2024	--	--	--	--	--	--	203.4
2025	--	--	--	--	--	--	112.1
2026	--	--	--	--	--	--	86.4
2027	--	--	--	--	--	--	27.1
Subtotal	3136	--	--	--	--	--	6537.3

Annual Funding TY\$
0391 | MILCON | Chemical Demilitarization
Construction, Defense

Fiscal Year	Total Program TY \$M
2000	2.0
2001	11.8
2002	29.3
2003	56.6
2004	104.6
2005	81.9
2006	--
2007	131.0
2008	104.2
2009	144.3
2010	151.5
2011	125.0
2012	75.3
2013	79.8
2014	92.3
2015	90.4
2016	43.4
2017	8.2
Subtotal	1331.6

Annual Funding BY\$
0391 | MILCON | Chemical Demilitarization
Construction, Defense

Fiscal Year	Total Program BY 1994 \$M
2000	1.8
2001	10.4
2002	25.4
2003	47.8
2004	86.1
2005	65.4
2006	--
2007	101.0
2008	79.4
2009	108.3
2010	112.0
2011	91.0
2012	53.9
2013	56.2
2014	63.9
2015	61.5
2016	29.0
2017	5.4
Subtotal	998.5

Low Rate Initial Production

There is no Low Rate Initial Production (LRIP) for this program.

Foreign Military Sales

None

Nuclear Cost

None

Unit Cost**Unit Cost Report**

	BY1994 \$M	BY1994 \$M	
Unit Cost	Current UCR Baseline (APR 2007 APB)	Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	5413.0	7535.8	
Quantity	3136	3136	
Unit Cost	1.726	2.403	+39.22 ¹
Average Procurement Unit Cost (APUC)			
Cost	--	0.0	
Quantity	--	0	
Unit Cost	--	--	--

	BY1994 \$M	BY1994 \$M	
Unit Cost	Revised Original UCR Baseline (APR 2007 APB)	Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	5413.0	7535.8	
Quantity	3136	3136	
Unit Cost	1.726	2.403	+39.22 ¹
Average Procurement Unit Cost (APUC)			
Cost	--	0.0	
Quantity	--	0	
Unit Cost	--	--	--

	TY \$M		
Unit Cost	Current UCR Baseline (APR 2007 APB)	Current Estimate (DEC 2010 SAR)	TY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	7966.0	10707.3	
Unit Cost	2.540	3.414	+34.41
Average Procurement Unit Cost (APUC)			
Cost		0.0	
Unit Cost		--	0.00

Unit Cost	TY \$M		
	Revised Original UCR Baseline (APR 2007 APB)	Current Estimate (DEC 2010 SAR)	TY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	7966.0	10707.3	
Unit Cost	2.540	3.414	+34.41
Average Procurement Unit Cost (APUC)			
Cost		0.0	
Unit Cost		--	0.00

¹ Nunn-McCurdy Breach

Unit Cost Breach Data

Changes from Previous SAR	\$M/Qty.	Percent
PAUC (BY \$M)	2.403	+14.43
APUC (BY \$M)		0.00
PAUC Quantity	3136	0.00
PAUC (TY \$M)	3.414	+15.57
APUC (TY \$M)		0.00

Initial SAR Information DEC 2002	BY1994 \$M	TY \$M
Program Acquisition Cost	3330.6	4187.3

Unit Cost PAUC Changes

The current estimate is based on the OSD CAPE independent cost estimate requested by the Department. The PAUC increase is due to design immaturity, escalation in costs and quantities of materials, additional cost to prove out first-of-a-kind (FOAK) equipment and a higher assessment of risk. This estimate is currently being evaluated in the Nunn-McCurdy review process. The final, revised estimates for cost and schedule will be available in the fourth quarter of FY 2011.

Unit Cost APUC Changes

Chem Demil-ACWA currently has no procurement funding in the program.

Impact of Performance or Schedule Changes

The increased estimates are attributed primarily to a higher assessment of risk, additional cost to prove out first-of-a-kind (FOAK) equipment, and a schedule extension for operations. This estimate is currently being evaluated in the Nunn-McCurdy review process. The final, revised estimates for cost and schedule will be available in the fourth quarter of FY 2011.

Program Management or Control

Mr. Conrad Whyne, Acting Program Manager, U.S. Army Element, Assembled Chemical Weapons Alternatives

Mr. Joseph Novad, Deputy Program Manager, U.S. Army Element, Assembled Chemical Weapons Alternatives

Mr. Stephen Worton, Resource Management Director, U.S. Army Element, Assembled Chemical Weapons

Alternatives

Cost Control Actions

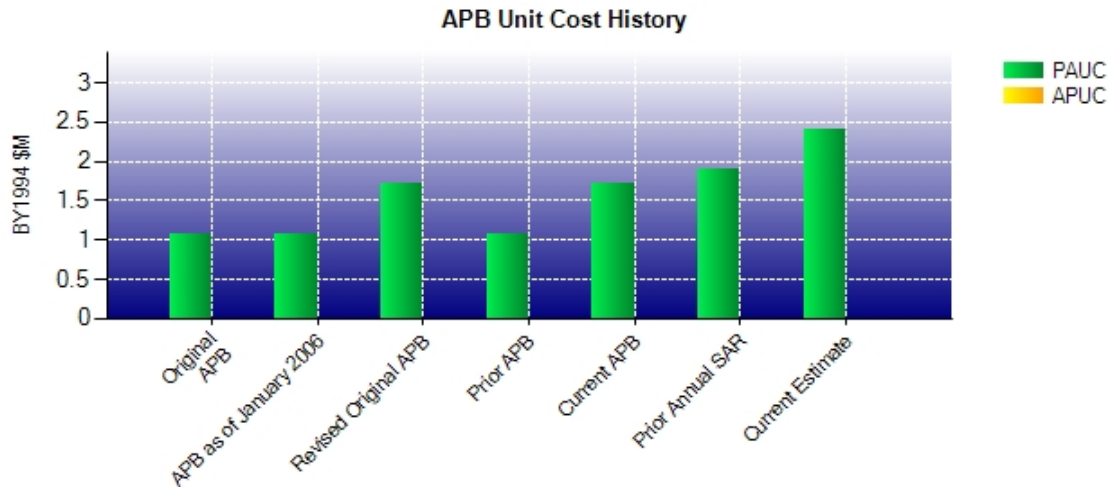
The Program Manager Assembled Chemical Weapons Alternatives (PM ACWA) serves as the program's focal point with the public, Congress, and the Department of Defense (DoD). His ability to control costs is constantly being evaluated and is the basis for Congress to appropriate and authorize the funds required to execute the program. The PM ACWA uses industry and business best practices, lessons learned from the U.S. Army Chemical Materials Agency, and earned value and risk management tools to minimize costs.

The success of the PM ACWA to control costs is a function of his ability to accurately estimate schedules, and then meet or expedite schedules. The PM ACWA performance-based contracting approach aligns financial incentives with programmatic guidance to the Systems Contractor (SC) for timely and cost-effective destruction of the chemical weapons stockpile in accordance with safe and environmentally sound procedures. Performance-based contracting encourages and rewards the SC for creative and proactive solutions to accelerate the stockpile destruction as early as possible, and thus at a lower cost. Also, as authorized under Public Law 111-383, the Ike Skelton National Defense Authorization Act for Fiscal Year 2011, Section 1412, Incentives Clauses in Chemical Demilitarization contracts, the PM ACWA is working to apply the use of shared savings for under-running the contract target cost to provide additional incentives to accelerate the operations and closure end dates at both sites.

Nunn-McCurdy Comments

Department of Defense is conducting a Nunn-McCurdy review of the program. If the program is not terminated, a new Acquisition Program Baseline for a restructured program will be issued in the fourth quarter of FY 2011.

Unit Cost History



	Date	BY1994 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	APR 2003	1.079	N/A	1.355	N/A
APB as of January 2006	APR 2003	1.079	N/A	1.355	N/A
Revised Original APB	APR 2007	1.726	N/A	2.540	N/A
Prior APB	APR 2003	1.079	N/A	1.355	N/A
Current APB	APR 2007	1.726	N/A	2.540	N/A
Prior Annual SAR	DEC 2009	1.905	N/A	2.663	N/A
Current Estimate	DEC 2010	2.403	N/A	3.414	N/A

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY \$M)

Initial PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.000	-0.058	0.000	-0.048	0.000	0.000	0.000	0.000	0.000	3.414

Current SAR Baseline to Current Estimate (TY \$M)

Initial APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone I	N/A	N/A	N/A	N/A
Milestone II	N/A	N/A	N/A	N/A
Milestone III	N/A	N/A	N/A	N/A
IOC	N/A	N/A	N/A	N/A
Total Cost (TY \$M)	N/A	N/A	2430.4	10707.3
Total Quantity	N/A	N/A	0	3136
Prog. Acq. Unit Cost (PAUC)	N/A	N/A	N/A	3.414

Cost Variance**Cost Variance Summary**

Summary Then Year \$M					
	RDT&E	Proc	MILCON	Acq O&M	Total
SAR Baseline (Prod Est)	--	681.3	418.6	1330.5	2430.4
Previous Changes					
Economic	+13.3	-7.7	-3.2	-51.2	-48.8
Quantity	--	--	--	--	--
Schedule	-165.8	--	+15.6	--	-150.2
Engineering	--	--	--	--	--
Estimating	+8081.7	-673.6	+903.0	-1279.3	+7031.8
Other	--	--	--	--	--
Support	--	--	--	--	--
Subtotal	+7929.2	-681.3	+915.4	-1330.5	+6832.8
Current Changes					
Economic	-131.5	--	-1.4	--	-132.9
Quantity	--	--	--	--	--
Schedule	--	--	--	--	--
Engineering	--	--	--	--	--
Estimating	+1578.0	--	-1.0	--	+1577.0
Other	--	--	--	--	--
Support	--	--	--	--	--
Subtotal	+1446.5	--	-2.4	--	+1444.1
Total Changes	+9375.7	-681.3	+913.0	-1330.5	+8276.9
CE - Cost Variance	9375.7	--	1331.6	--	10707.3
CE - Cost & Funding	9375.7	--	1331.6	--	10707.3

Summary Base Year 1994 \$M					
	RDT&E	Proc	MILCON	Acq O&M	Total
SAR Baseline (Prod Est)	--	579.1	355.7	1022.6	1957.4
Previous Changes					
Economic	--	--	--	--	--
Quantity	--	--	--	--	--
Schedule	-173.2	--	-1.9	--	-175.1
Engineering	--	--	--	--	--
Estimating	+5759.1	-579.1	+645.2	-1022.6	+4802.6
Other	--	--	--	--	--
Support	--	--	--	--	--
Subtotal	+5585.9	-579.1	+643.3	-1022.6	+4627.5
Current Changes					
Economic	--	--	--	--	--
Quantity	--	--	--	--	--
Schedule	--	--	--	--	--
Engineering	--	--	--	--	--
Estimating	+951.4	--	-0.5	--	+950.9
Other	--	--	--	--	--
Support	--	--	--	--	--
Subtotal	+951.4	--	-0.5	--	+950.9
Total Changes	+6537.3	-579.1	+642.8	-1022.6	+5578.4
CE - Cost Variance	6537.3	--	998.5	--	7535.8
CE - Cost & Funding	6537.3	--	998.5	--	7535.8

Previous Estimate: September 2010

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-131.5
Adjustment for current and prior escalation. (Estimating)	+6.7	+8.9
Increased cost estimate for the program reflecting an assessment, by the Director, Cost Assessment and Program Evaluation (D, CAPE), of higher risk, additional cost to prove out first-of-a-kind equipment, and a change in the program schedule. (Estimating)	+944.7	+1569.1
RDT&E Subtotal	+951.4	+1446.5

MILCON	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-1.4
Adjustment for current and prior escalation. (Estimating)	+0.6	+0.7
Refinement of construction estimate. (Estimating)	-1.1	-1.7
MILCON Subtotal	-0.5	-2.4

Contracts

Appropriation: RDT&E

Contract Name	PCAPP Systems Contract
Contractor	Bechtel National Inc.
Contractor Location	Pueblo, CO 81003
Contract Number, Type	DAAA09-02-D-0025/1, CPIF
Award Date	September 27, 2002
Definitization Date	September 30, 2002

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
178.2	N/A	2613	1809.5	N/A	2613	1823.2	1854.8

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/26/2010)	-10.2	-7.3
Previous Cumulative Variances	-3.0	-12.6
Net Change	-7.2	+5.3
Percent Variance	-1.18%	-0.83%
Percent Complete	+54.10%	

Cost And Schedule Variance Explanations

The net unfavorable cost variance (CV) change of -\$7.2M is largely the result of Construction Non-Manual/Resident Engineering utilizing resources (personnel business travel & temporary assignments) to complete detailed engineering design and processing of Field Change Notices (FCNs) in support of accelerated Construction.

The net favorable schedule variance (SV) change of +\$5.3M is primarily due to a significant schedule recovery in construction performance in the Biotreatment Area.

Contract Comments

This is a cost plus incentive fee multi-phase task order contract. The Initial Contract price (\$178.2M) only included the initial design effort. Restructuring of the contract was completed in June 2009. The restructured contract includes the original contract (TOs 1 through 6) and a new contract covering Systemization (designated TO 7 in Bechtel National Inc.'s Earned Value Management System) and Pre-systemization.

The target price of \$1809.5M incorporates all contract modifications through December 2010. The Contractor and the Program Manager Estimated Price at Completion include authorized unpriced work of \$45.3M for Systemization modifications.

TO 1, which was definitized on September 30, 2002, required the PCAPP Systems Contractor (SC) to develop the Design Build Plan and was awarded for a total contract value of \$3.9M. All deliverables are complete. The revised Budget at Completion (BAC) is \$3.6M (includes fees).

TO 2, which was definitized on May 5, 2003, required the PCAPP SC to complete the PCAPP design. Design completion is now included in TO 6. All the deliverables are complete. This task had a total contract value of \$173.5M (excluding fees) when initiated in April 2003. The revised BAC for this TO is \$128.3M (includes fees). The closeout of the TO will occur after final payments are made to all the teaming subcontractors.

TO 3, which was definitized on December 14, 2004, requires the PCAPP SC to conduct special studies as required and support design and fabrication of first-of-a-kind (FOAK) equipment. This task has a total contract value of \$53.6M. The revised BAC for this TO is \$36.1M (includes fees). The work was 96.9 percent complete in December 2010.

TO 4, which was definitized on November 1, 2003, requires the PCAPP SC to provide Project Services support (including public outreach) to the contract. This task has a total contract value of \$50.2M and is primarily Level of Effort work. The BAC per July 2010 data is \$49.4M (includes fees). The Project Services phase has been part of Construction Stage 3 contract since October 2008 (Fiscal Year (FY) 2009). The work was completed in July 2010.

TO 5 requires the PCAPP SC to construct the PCAPP facilities. This task has a current total contract value of \$721.9M (excluding fees). TO 5 is further broken into Stages 1A, 1B, 2, 3A, and 3B. Stages 1A and 1B of construction are complete. Stage 2 construction was awarded on May 31, 2007. Stage 3 construction negotiations were completed in January 2008, with an expected award value of \$484.7M (excluding fees). In April 2008, due to the authorization issue of Military Construction (MILCON) funding, the PCAPP project had to re-plan the balance of construction consistent with available MILCON funding. Stage 3 was split into Stages 3A/B; some Stage 2 work was transferred to Stages 3A/B. Stage 3B contract, the remaining scope of construction, was awarded on October 15, 2008. The revised BAC for this TO is \$693.8M. The work is 77 percent complete as of February 2011.

TO 6, which was definitized on September 7, 2005, requires the PCAPP SC to complete the optimized redesign. This task has a total contract value of \$86.9M (excluding fees). All deliverables were completed in December 2007. The revised BAC for this TO is \$87.2M. The closeout of the TO will occur after the DCAA audit.

TO 7, Systemization was broken into two parts: part 1, Pre-Systemization and Part 2, Systemization. Part 1, which includes work during the Construction phase associated with preparation of the Systemization phase documentation, was awarded in June 2009. Part 2, which includes all the major tasks, was awarded in December 2010. The revised BAC for this TO is \$310.1M. This task has a total contract value of \$686.4M (includes fee).

The awards of the operations and closure phases have not been scheduled.

Appropriation: RDT&E

Contract Name	BGCAPP Systems Contract
Contractor	Bechtel Parsons Blue Grass
Contractor Location	Richmond, KY 40475
Contract Number, Type	DAAA09-03-D-0023/1, CPIF
Award Date	June 13, 2003
Definitization Date	June 13, 2003

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
138.0	N/A	523	625.1	N/A	523	2100.3	2080.8

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/26/2010)	-27.3	+2.5
Previous Cumulative Variances	-26.9	-9.6
Net Change	-0.4	+12.1
Percent Variance	-3.61%	+0.33%
Percent Complete	+41.66%	

Cost And Schedule Variance Explanations

The net unfavorable cost variance (CV) change of -\$0.3M is due primarily to construction distributable costs.

The net favorable schedule variance (SV) change of +\$12.1M is due to an ahead-of-schedule position for the Supercritical Water Oxidation (SCWO) FOAK effort, and the under planned usage of Bulk Materials for construction.

Contract Comments

This is a cost plus incentive fee multi-phase TO contract. The Initial Contract price (\$138M) only included the initial design effort. To date, there have been seven tasks awarded on the contract.

The target price of \$625.1M incorporates all contract modifications through December 2010. The Contractor and the Program Manager Estimated Price at Completion of \$2080.8M include authorized unpriced work of \$1455.7M for the balance of construction effort delineated in TO 4.

TO 1, which was definitized on June 13, 2003, requires the BGCAPP SC to complete the BGCAPP design. This task has a total contract value of \$261.1M. The revised BAC for this TO is \$262.5M. TO 1 (final design packages) was completed in July 2010.

TO 2, was definitized on September 30, 2003, and then cancelled. It required the BGCAPP SC to implement a risk mitigation program in support of the BGCAPP. TO 2 had a total contract value of \$20K. The BAC has since been revised to \$0K.

TO 3, which was definitized on September 26, 2003, requires the BGCAPP SC to provide Public Communications services support to the BGCAPP contract. The revised BAC for this TO is \$3.1M. This task has a total contract value of \$3.0M. The work is 100 percent complete.

TO 4, which was definitized on February 22, 2006, requires the BGCAPP SC to initiate construction of the BGCAPP facilities. TO 4 is further broken into Phase I, Phase II, Phase III, and Phase IV work. Phase I included access roads and earthworks. Phase II included the Access Control Building, Personnel Support Building, Maintenance Building, Badging Facility, and site utilities. Phase III includes the Munitions Demilitarization Building, Control and Support Building horizontal concrete, and electrical substation. Phase IV includes the balance of construction. Phase I and Phase II construction is completed. A Limited Notice to Proceed (LNTP) has been issued for Phase IIIA and IIIB. The Phase IIIA construction proposal was submitted in November 2007, and was awarded in December 2008. The Phase IIIB proposal was submitted in January 2008, and was awarded in July 2009. The Phase IV proposal was submitted in April 2009 and subsequently split into part A and B. Negotiations on Part A have been completed. Negotiations on Part B are expected to be finalized in 3rd Quarter FY 2011. This task currently has a total contract value of 1,282.5 \$M. The revised BAC for this TO is \$1,286.9M. The total work under this TO was 31 percent complete in February 2011.

TO 5, which was definitized on August 2, 2005, required the BGCAPP SC to perform the special studies and design considerations. This task has a total contract value of \$1.5M. The revised BAC for this TO is \$1.5M. The work has been accomplished and the TO is inactive.

TO 6, which was definitized on September 19, 2006, is a LTNP for the BGCAPP SC to perform expedited rocket motors removal technology validation tests. This task has a total contract value of \$3.0M. The revised BAC for this TO is \$3.0M. The work has been accomplished and the TO is inactive.

TO 7, which was definitized on June 20, 2007, requires the BGCAPP SC to support design and fabrication of the FOAK equipment. TO 7 is further broken into Part I and Part II. Part I includes the Energetics Batch Hydrolyzer, Metal Parts Treater, and Energetics Neutralization Reactor. Part II includes the Supercritical Water Oxidation System, Aluminum Filtration System, Munitions Washout System, Rocket Cutting Machine, Rocket Shear Machine, and Agent and Energetics Neutralization Systems. The TO has a total contract value of \$86.9M. Part I was awarded in April 2009. The Part II proposal was submitted in December 2009 and is expected to be awarded in 3rd Quarter FY 2011. After award, Part II will be transferred to the restructured contract under Contract Line Item 6. The revised BAC for this TO is \$210.8M. This task was 51.4 percent complete as of December 2010.

The awards of systemization, operations, and closure phases have not been scheduled.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	0	0	3136	0.00%
Production	0	0	0	--
Total Program Quantities Delivered	0	0	3136	0.00%

Expenditures and Appropriations (TY \$M)			
Total Acquisition Cost	10707.3	Years Appropriated	15
Expenditures To Date	2334.0	Percent Years Appropriated	48.39%
Percent Expended	21.80%	Appropriated to Date	3365.5
Total Funding Years	31	Percent Appropriated	31.43%

Operating and Support Cost

Assumptions And Ground Rules

Costs BY1994 \$M		
Cost Element	CHEM DEMIL-ACWA	No Antecedent
Unit-Level Manpower	--	--
Unit Operations	--	--
Maintenance	--	--
Sustaining Support	--	--
Continuing System Improvements	--	--
Indirect Support	--	--
Other	--	--
Total Unitized Cost (Base Year 1994 \$)	--	--

Total O&S Costs \$M	CHEM DEMIL-ACWA	No Antecedent
Base Year	--	--
Then Year	--	--

Operating and Support costs are an integral part of the ACWA program and as such are reported in the funding and cost sections of this report.