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Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

Selected Acquisition Report (SAR)



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

FY 2024 President's Budget

**Defense Acquisition Visibility Environment
(DAVE)**

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Common Acronyms and Abbreviations

\$B - Billions of Dollars
\$K - Thousands of Dollars
\$M - Millions of Dollars
ACAT - Acquisition Category
Acq O&M - Acquisition-Related Operations and Maintenance
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FMS - Foreign Military Sales
FOC - Full Operational Capability
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
Inc - Increment
IOC - Initial Operational Capability
JROC - Joint Requirements Oversight Council
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
O&S - Operating and Support
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
PAUC - Program Acquisition Unit Cost
PB - President's Budget

PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
U.S. - United States
UCR - Unit Cost Reporting
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name

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

DoD Component

OSD

Responsible Office

Program Manager

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Mission and Description

Chemical Demilitarization-Assembled Chemical Weapons Alternatives (Chem Demil-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, 107-248, 112-239, 114-92, 116-236, 116-260, and 117-81). The Department of Defense (DoD) 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 Chemical Depot, CO, and Blue Grass Army Depot, KY (July 16, 2002 and February 3, 2003, respectively). At the time of initiation, the ACWA program was known as the Assembled Chemical Weapons Assessment program. When the assessment phase was complete, the ACWA program shifted its focus from assessing chemical weapons destruction 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. To raise the program's visibility and obtain the necessary resources, PM ACWA was redesignated as the Program Executive Office (PEO) on October 1, 2012.

Executive Summary

Chem Demil-ACWA

Program Highlights Since Last Report

This Chem Demil-ACWA December 2022 SAR details changes to cost, schedule, and performance since last reported in the December 2021 SAR. Chem Demil-ACWA is responsible for the safe destruction of 3,136 tons of mustard and nerve agent stockpiled at the Blue Grass Army Depot (BGAD) in Kentucky and the Pueblo Chemical Depot (PCD) in Colorado. The Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) and the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) are safely destroying the remaining stockpile of lethal chemical agent munitions as required by Title 50, United States Code, Section 1521. The PEO ACWA is focused on completing destruction of the stockpiles by the Chemical Weapons Convention Treaty commitment of September 30, 2023. The congressionally-mandated deadline is December 31, 2023.

Pursuant to section 2432 of title 10, United States Code, this is the final SAR submission for the PCAPP subprogram, because the subprogram is 90% or more delivered, meaning that it has destroyed 90% of the original agent stockpile.

The final destruction campaigns are underway at both sites; BGCAPP Main Plant continues processing M55 rockets containing nerve agent, and PCAPP Main Plant and Static Detonation Chambers (SDCs) continue processing mustard (HD/HT) 4.2-inch mortars. On September 9, 2022, BGCAPP completed destruction of 50% of the chemical agent originally stored at the Blue Grass Army Depot (BGAD) and in late November 2022, achieved the 25% destruction milestone for the remaining nerve agent rockets. On December 1, 2022, the PCAPP Main Plant began destruction of 4.2-inch mortars. As of December 31, 2022, the BGCAPP has destroyed 341.2 U.S. tons (65.2%) out of the original stockpile of 523.4 U.S. tons and the PCAPP has destroyed 2,399.5 U.S. tons (91.8%) out of the original stockpile of 2,613.2 U.S. tons.

The PEO ACWA continues to follow Centers for Disease Control and Prevention (CDC) and DoD guidance regarding the COVID-19 pandemic to minimize risk to the workforce while remaining committed to the mission. PCAPP and BGCAPP continue to evaluate local conditions and have flexible plans in place to continue destruction operations safely. While significant efforts have successfully mitigated numerous workforce issues, challenges remain related to the supply chain and workforce retention. The shortage of skilled workers during the COVID-19 pandemic has increased competition and is impacting staffing and attrition. PEO ACWA continues to track COVID-19 related cost and schedule impacts. The PEO ACWA has modified both systems contracts to codify incentives for the safe and accelerated destruction of the stockpile. The PCAPP Operations Contract period of performance (POP) for the Main Plant ends on April 30, 2023 and the SDC POP was extended to September 30, 2023. The BGCAPP Operations Contract POP ends on September 30, 2023. The modification for both contracts incorporated the congressionally-authorized, self-funded, National Defense Authorization Act (NDAA) incentive that allows the systems contractor to potentially earn up to \$110 million for accelerating the completion and reducing the actual cost of operations. The focus for contracting actions has shifted to closure. The BGCAPP Phase 1 (decontamination and decommissioning) Closure contract POP ends on February 13, 2026. The PCAPP Phase 1 Closure contract POP ends 30 months after destruction of the final munition. The Phase 2 (demolition) Closure contracts are expected to be awarded in 1QFY25. Both closure contracts incorporate the NDAA authorized closure incentive of up to \$55M for the early completion of closure.

While PEO ACWA is focused on completing operations, we are also increasing our efforts on closure. PEO ACWA is actively coordinating with all our stakeholders, conducting semi-annual closure In-Process Reviews with the U.S. Army Chemical Materials Activity, and coordinating closely with installation partners and their higher headquarters. Closure planning activities go beyond facility closure to include programmatic closure and closeout.

History of Significant Developments Since Program Initiation	
History of Significant Developments Since Program Initiation	
Date	Significant Development Description
Jan - 2023	BGCAPP SDC 2000 Operations Begin (Drained Rocket Warheads)
Dec - 2022	PCAPP Main Plant Contingency Operation Begins (HT/HD 4.2-inch mortars)
Sep - 2022	PCAPP Third Main Plant Campaign Begins (Overpacked Non-Leaking Munition)
Sep - 2022	PCAPP Third Main Plant Campaign Complete (Overpacked Non-Leaking Munition)
Jul - 2022	BGCAPP Second Main Plant Rocket Processing System (RPS) Campaign Begins (Nerve GB M55 Rocket) - Last BGCAPP Munition Campaign
Jul - 2022	PCAPP Second Main Plant Campaign Complete (Mustard HD 105mm Projectiles)
Jun - 2022	MDA Approval of PCAPP Contingency Plan to Supplement SDC 4.2-inch Mortar Operations by Processing 4.2-inch Mortars in the Main Plant
Apr - 2022	100% Destruction of VX Nerve Agent in U.S. Chemical Stockpile
Apr - 2022	BGCAPP First Main Plant Rocket Processing System (RPS) Campaign Complete (Nerve VX M55 Rockets)
Apr - 2022	PCAPP SDCs Agent Trial Burns Complete; Begin Operations
Mar - 2022	MDA Approved Revised Current APB
Feb - 2022	PCAPP SDCs Agent Trial Burns Begin (Mustard HD/HT 4.2-inch Mortars) - Last PCAPP Munition Campaign
Sep - 2021	BGCAPP EDT Operation Complete (Mustard H 155mm projectiles)
Jul - 2021	BGCAPP First Main Plant Rocket Processing System (RPS) Campaign Begins (Nerve VX M55 Rockets)
May - 2021	BGCAPP Second Main Plant Campaign Complete (Nerve VX 155mm Projectiles)
Jan - 2021	BGCAPP Second Main Plant Campaign Begins (Nerve VX 155mm Projectiles)
Dec - 2020	PCAPP Second Main Plant Campaign Begins (Mustard HD 105mm Projectiles)
Sep - 2020	PCAPP Main Plant Operations Complete (Mustard HD 155mm Projectiles)
Aug - 2020	PEO ACWA Decision to not use SCWO and Transport BGCAPP Hydrolysate Offsite
Jul - 2020	PCAPP SDC Construction Complete
May - 2020	BGCAPP Main Plant Operations Complete (Nerve GB 8-inch Projectiles)
Jan - 2020	BGCAPP Main Plant Operations Begin (Nerve GB 8-inch Projectiles)
Jun - 2019	BGCAPP EDT Operations Begin (Mustard H 155mm Projectiles)
Jun - 2019	PEO ACWA Decision to Revise Rocket Processing Strategy
Mar - 2019	PEO ACWA Decision to Procure BGCAPP SDC 2000
Dec - 2018	PCAPP EDS Reject Campaign Complete
Jun - 2018	PCAPP EDS Reject Campaign Begins
Jun - 2018	PCAPP Main Plant Operations Resume
Sep - 2017	PCAPP Main Plant Temporary Pause in Operations
Apr - 2017	Significant Nunn-McCurdy Breach Reported
Sep - 2016	PCAPP Main Plant Operations Begin (Mustard HD 155mm Projectiles)
Mar - 2016	PCAPP EDS Overpack Campaign Complete
Mar - 2015	PCAPP EDS Overpack Campaign Begins

Dec - 2013	PEO ACWA Decision to use Static Detonation Chamber (SDC) at BGCAPP
Apr - 2013	PEO ACWA Decision to use Explosive Destruction System (EDS) at PCAPP
Oct - 2012	ACWA Designated as a Program Executive Office (PEO)
Mar - 2012	DAE Approved Revised APB
Jan - 2011	ACWA Program Certified to Congress
Dec - 2010	Critical Nunn-McCurdy Breach Reported by USD(AT&L)
Sep - 2010	Significant Nunn-McCurdy Breach Reported by ACWA
Apr - 2007	DAE Approved Revised APB
Jan - 2007	ACWA Program Certified to Congress
Aug - 2006	Critical Nunn-McCurdy Breach Reported by ACWA
Jun - 2003	ACWA Redesignated as Assembled Chemical Weapons Alternatives
Jun - 2003	Bechtel Parsons Blue Grass Team Awarded Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Contract
Nov - 2002	ACWA Assigned Responsibility for Destruction of Chemical Agent Stockpiles at Blue Grass Army Depot and Pueblo Chemical Depot (Public Law 107-248)
Sep - 2002	Bechtel Pueblo Team Awarded Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) Contract
Apr - 1997	The Chemical Weapons Convention (aka chemical weapons treaty) Signed by U.S. and Entered Into Force
Sep - 1996	Assembled Chemical Weapons Assessment (ACWA) Established (Public Law 104-208)

Pueblo (PCAPP)

Program Highlights Since Last Report

The PCAPP Main Plant completed its final projectile campaign on July 20, 2022 and has changed over to supplement destruction of the 4.2-inch mortars undergoing destruction in the SDCs. The changeover consisted of the installation of Improved Cavity Access Machines (ICAMs) that were developed and designed to eliminate safety concerns associated with the original Cavity Access Machines. In the original PCAPP design, destruction of the mortars required a cutting process to drain the agent. With the ICAMs, agent is removed with a vacuum system, making the entire process safer and increasing the rate of 4.2-inch mortar destruction. The Colorado Department of Public Health and Environment (CDPHE) approved a temporary authorization to allow installation of the ICAMs on October 13, 2022, and installation was completed on October 23, 2022. The Integrated Operations Demonstrations for the ICAMS concluded on November 12, 2022. On November 30, 2022, PCAPP received necessary permit approvals and authorizations from the CDPHE to start processing the 4.2-inch mortars in the Main Plant using ICAMs. On December 1, 2022, destruction of 4.2-inch mortars using the ICAM began in the Main Plant with a slow ramp up. Performance Demonstration Testing Phase 1 which involved the destruction of 60 HT mortars was completed on December 9, 2022. The HT Phase 1 testing report was submitted to CDPHE on December 13, 2022, for review and approval to begin the destruction of an additional 400 HT mortars under Phase 2 of the testing. The HT Phase 2 testing report is projected to be approved on January 20, 2023 authorizing the Main Plant to resume HT processing. The initial testing of the ICAM with HD mortars demonstrated a small residual amount of heel at the specified operating parameters. To proceed further with HD ICAM testing, the site is providing a permit modification with a HD specific test plan to establish new operating parameters. Coordination with CDPHE on review and approval of the HD mortar test plan, followed by successful execution and acceptance of results, is needed to ensure that permitting efforts do not impact the ability to meet Treaty commitments.

PEO ACWA completed the SDC Agent Trial Burns (ATBs) on April 30, 2022. The SDCs are designed to destroy up to twelve 4.2-inch mortars per hour, but the CDPHE limited the ATBs to six 4.2-inch mortars per hour. Upon completion of the ATB, the CDPHE approved the SDCs to operate at 50% of the demonstrated feed rate (three mortars per hour) with one unit operating at a time until individual reports for each SDC were submitted and approved. The last ATB preliminary reports were approved on September 8, 2022, allowing all of the SDCs to operate simultaneously at 75% of the demonstrated feed rate (four mortars per hour). The last final reports were approved on December 6, 2022, and the Multi-Pathway Health Risk Assessment (MPHRA) is

expected to be approved on January 27, 2023. An increase to a 100% feed rate is anticipated in 2QFY23, following the approval of the final permit modification allowing changes to the SDC operating parameters. As of December 31, 2022, the SDCs have processed 24,975 4.2-inch mortars with throughput rates increasing from an initial rate of 14 mortars per day in the first week of processing to the current 28-day average of 167 mortars per day, with a best-ever processing day of 258 mortars on December 8, 2022. The 28-day rolling average for both the Main Plant and the SDCs combined is 186 mortars per day.

History of Significant Developments Since Program Initiation

History of Significant Developments Since Program Initiation

Date	Significant Development Description

Blue Grass (BGCAPP)

Program Highlights Since Last Report

As of December 31, 2022, the BGCAPP Main Plant Rocket Processing System (RPS) has destroyed 17,743 GB rockets which is 34.3% of the GB rocket stockpile. The RPS began the GB rocket campaign on July 6, 2022. For the initial several weeks, the GB rocket campaign ramped-up and fine-tuned the robotics and automations systems to the nuances of processing GB agent-filled rockets. Using the Non-Destructive Examination system that was incorporated into the rocket line, BGCAPP identified rockets with excessive corrosion, excess grease, cracked bursters, and out of specification dimensions. At the end of August, BGCAPP was only averaging 38 rockets per day, so they conducted a mini-outage to implement lessons learned. Since the mini-outage the system increased to an average of 128 rockets per day, and the 28-day rolling average is 132 rockets per day. To achieve the September 30, 2023, BGCAPP needs to average 124 rockets per day. To reduce safety and environmental risks, and increase the program's confidence of completing operations by September 30, 2023, the PEO ACWA is investigating alternative processing strategies and has initiated dialogue with State regulators.

PEO ACWA has made significant progress to increase M55 GB rocket processing rates, but aging rockets have continued to deteriorate to the point that problematic rockets are being encountered that are a higher risk to process through the Main Plant. To minimize safety risks and environmental risks associated with destroying problematic M55 GB rockets, PEO ACWA is developing an alternative processing strategy that requires installing equipment, already permitted in the Main Plant, in the Earth Covered Magazine (ECM) adjacent to the SDC 2000. The ECM Rocket Operations process will entail separating (de-mating) the rocket warhead from the motor using the Vertical Rocket Cutting Machine and containerizing the undrained warhead using the Rocket Warhead Containerization System. The de-mated undrained warhead will be transported and destroyed in the SDC 2000 to meet Treaty destruction requirements. The separated rocket motors will be crated and moved to BGAD storage, for subsequent transfer and processing at the Anniston SDC. ECM Rocket Operations offers many safety advantages over rocket operations in the Main Plant and thus, reduces safety risks to the workers during both the operations and closure phases. The benefits of implementing the ECM Rocket Operations are: (1) the location is easily equipped and understood by the Kentucky Department for Environmental Protection (KDEP); (2) it provides a smaller footprint than the Main Plant, minimizing potential contamination of the Main Plant, which reduces the safety risk; (3) it minimizes potential agent contamination of the Main Plant (also reducing the safety risk), and (4) it increases throughput without impact to the Main Plant. The ECM Rocket Operations could be executed within the existing PEO ACWA 2022 Program Office Estimate (POE). PEO ACWA projects to have the system operational as early as April 2023. PEO ACWA is working with the KDEP to complete the required permitting actions. SDC 2000 construction was completed at the end of August 2022. In early November 2022, surrogate testing to determine efficiency of agent destruction was successfully completed and proved that the system can destroy the agent to at least 'six nines,' or 99.9999% efficiency. The SDC 2000 is projected to begin operations on January 27, 2023, by destroying containerized rocket warheads that have been separated from their motors and drained of their chemical agent in the Main Plant. All required permitting actions to support this campaign are approved. The SDC 2000 will supplement Main Plant operations by destroying GB-filled M55 rockets that have leaked in the past or are higher risk for processing in the Main Plant and have been placed in overpacked containers, and potentially containerized GB-filled M55 rocket warheads as part of the SDC 2000 ECM Operations process.

Upon completion of the mustard (H) 155mm projectile campaign, BGCAPP re-designated the Explosive Destruction Technology as the SDC 1200. The system is being modified to enable the system to destroy drained VX nerve agent-filled rocket warheads. Modifications will include upgrades to the Detonation Chamber (DC) as well as a nerve-agent specific Off-Gas Treatment System (OTS). Refurbishment of the loading chambers and the DC, as well as installation of nerve agent monitoring equipment are ongoing. Installation of the new OTS equipment and the pre-engineered OTS enclosure are completed. Testing of the SDC loading system is complete. Operational and procedural training of the workforce began in November 2022. The start of SDC 1200 operations has slipped to 4QFY23 due to a lack of construction resources (i.e. electricians) that were reprioritized to support the start of SDC 2000 operations. The SDC 1200 will be used to destroy drained rocket warheads (secondary waste). All required permitting actions to support this campaign are approved. The two-year study of the Supercritical Water Oxidation (SCWO) system being conducted by the Combat Capabilities Development Command, Chemical Biological Center (DEVCOM CBC) is

expected to complete no later than March 2023. PEO ACWA intends to inform interested groups that if they are interested in obtaining SCWO equipment, they must inform the PEO ACWA of their interest no later than March 2023.

History of Significant Developments Since Program Initiation	
History of Significant Developments Since Program Initiation	
Date	Significant Development Description

Schedule**Chem Demil-ACWA**

Events	Milestone Baseline Objective	Current Baseline Objective/Threshold	Current Estimate/Actual	Deviation

Notes**Deviation Explanation**

No deviations for this program/subprogram

Pueblo (PCAPP)

Events	Milestone Baseline Objective	Current Baseline Objective/Threshold		Current Estimate/Actual	Deviation
Complete Operations	Nov 2019	Sep 2023	Sep 2024	Sep 2023	
Complete Closure	Nov 2022	Feb 2027	Feb 2028	Feb 2027	

Notes**Deviation Explanation**

No deviations for this program/subprogram

Blue Grass (BGCAPP)

Events	Milestone Baseline Objective	Current Baseline Objective/Threshold		Current Estimate/Actual	Deviation
Complete Operations	Sep 2023	Sep 2023	Sep 2024	Sep 2023	
Complete Closure	Oct 2026	Nov 2026	Nov 2027	Nov 2026	

Notes

Deviation Explanation

No deviations for this program/subprogram

Performance

Chem Demil-ACWA

Performance Characteristics					
Milestone Baseline	Current Baseline Objective/Threshold		Demonstrated Performance	Current Estimate/Actual	Deviation
Chemical Agent Exposure					
	0	0	On Track	0	
Chemical Agent Release					
	0	0	On Track	0	
Environmental Laws and Regulations					
	Meets DoD, State, and/or Federal Requirements	Meets DoD, State, and/or Federal Requirements	On Track	Meets DoD, State, and/or Federal Requirements	
Safety and Occupational Health Laws and Regulations					
	Meets DoD, State, and/or Federal Requirements	Meets DoD, State, and/or Federal Requirements	On Track	Meets DoD, State, and/or Federal Requirements	

Requirement Reference

Sponsor(s): Office of the Secretary of Defense

1. ORD, Operational Requirements Document Validated by: Other, September 02, 1994

Deviation Explanation

No deviations for this program/subprogram

Notes

1. Chemical Agent Exposure: Department of the Army Implementation Guidance Policy for Revised Airborne Exposure Limits (June 18, 2004) Appendices A and B, defines a chemical agent exposure as an event when an individual exhibits clinical signs or symptoms of being exposed to chemical agent.
2. Chemical Agent Release: An event involving chemical agent-destruction pilot plants or EDTs where the following occurs: a. Confirmed chemical agent release above the General Population Limit at the installation boundary measured in accordance with the approved monitoring and/or modeling plan with the pilot plant as the identified source. b. Confirmed chemical agent release from the pilot plant's exhaust air filter stack above the allowable threshold limit. Allowable threshold limits are calculated as vapor screening level ceiling values.
3. Environmental Laws and Regulations: 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 DoD, the State, the Department of Health and Human Services, or the Environmental Protection Agency and causes a schedule delay of more than 12 months.
4. Safety and Occupational Health Laws and Regulations: 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 the DoD, the State, or the Occupational Safety and Health Administration and causes a schedule delay of more than 12 months.

Pueblo (PCAPP)

Performance Characteristics					
Milestone Baseline	Current Baseline Objective/Threshold		Demonstrated Performance	Current Estimate/Actual	Deviation
Chemical Agent Exposure					
	0	0	On Track	0	
Chemical Agent Release					
	0	0	On Track	0	
Environmental Laws and Regulations					
	Meets DoD, State, and/or Federal Requirements	Meets DoD, State, and/or Federal Requirements	On Track	Meets DoD, State, and/or Federal Requirements	
Safety and Occupational Health Laws and Regulations					
	Meets DoD, State, and/or Federal Requirements	Meets DoD, State, and/or Federal Requirements	On Track	Meets DoD, State, and/or Federal Requirements	

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Blue Grass (BGCAPP)

Performance Characteristics					
Milestone Baseline	Current Baseline Objective/Threshold		Demonstrated Performance	Current Estimate/Actual	Deviation
Chemical Agent Exposure					
	0	0	On Track	0	
Chemical Agent Release					
	0	0	On Track	0	
Environmental Laws and Regulations					
	Meets DoD, State, and/or Federal Requirements	Meets DoD, State, and/or Federal Requirements	On Track	Meets DoD, State, and/or Federal Requirements	
Safety and Occupational Health Laws and Regulations					
	Meets DoD, State, and/or Federal Requirements	Meets DoD, State, and/or Federal Requirements	On Track	Meets DoD, State, and/or Federal Requirements	

Requirement Reference

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4. Safety and Occupational Health Laws and Regulations: 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 the DoD, the State, or the Occupational Safety and Health Administration and causes a schedule delay of more than 12 months.

Acquisition Budget Estimate

Chem Demil-ACWA

Total Acquisition Cost

		Milestone APB	Current Baseline		Budget Estimate PB 2024		
Category	Base Year	Objective (BY\$M)	Objective (BY\$M)	Threshold (BY\$M)	BY\$M	TY\$M	Deviation
RDT&E	2011	8,615.5	11,062.9	12,169.2	11,424.9	12,935.0	
Procurement	2011	0	0	0	0	0	
MILCON	2011	1,365.3	1,352.8	1,488.1	1,354.7	1,351.2	
Acq. O&M	2011	0	0	0	0	0	
Total		9,980.8	12,415.7	13,657.3	12,779.6	14,286.2	
PAUC	2011	3.18	3.96	4.36	4.08	4.56	
APUC	2011	.000	.000	.000	.000	.000	

Appropriation Category Deviation Explanations

PAUC Deviation Explanation

APUC Deviation Explanation

Budget Notes

Total End Item Quantity

Quantity Category	Current APB Quantity	Current Estimate Quantity
Development	3,136	3,136
Procurement	0	0
O&M-Acquired		

Quantity Notes

The RDT&E quantity reflects tons of chemical agent to be disposed by the Program Executive Office Assembled Chemical Weapons Alternatives. This number is 3,136 US tons and is composed of 2,613 US tons at PCAPP, and 523 US tons at BGCAPP.

Pueblo (PCAPP)***Total Acquisition Cost***

		Milestone APB	Current Baseline		Budget Estimate PB 2024		
Category	Base Year	Objective (BY\$M)	Objective (BY\$M)	Threshold (BY\$M)	BY\$M	TY\$M	Deviation
RDT&E	2011	4,096.7	5,440.4	5,984.4	5,610.7	6,315.4	
Procurement	2011	0	0	0	0	0	
MILCON	2011	606.5	559.1	615	559.3	541.4	
Acq. O&M	2011	0	0	0	0	0	
Total		4,703.2	5,999.5	6,599.4	6,170.0	6,856.8	
PAUC	2011	1.800	2.296	2.526	2.361	2.624	
APUC	2011	.000	.000	.000	.000	.000	

Appropriation Category Deviation Explanations

PAUC Deviation Explanation

APUC Deviation Explanation

Budget Notes

Total End Item Quantity

Quantity Category	Current APB Quantity	Current Estimate Quantity
Development	2613	2613
Procurement	0	0
O&M-Acquired		

Quantity Notes

The RDT&E quantity reflects tons of chemical agent to be disposed by the Program Executive Office Assembled Chemical Weapons Alternatives. This number is 3,136 US tons and is composed of 2,613 US tons at PCAPP, and 523 US tons at BGCAPP.

Blue Grass (BGCAPP)***Total Acquisition Cost***

		Milestone APB	Current Baseline		Budget Estimate PB 2024		
Category	Base Year	Objective (BY\$M)	Objective (BY\$M)	Threshold (BY\$M)	BY\$M	TY\$M	Deviation
RDT&E	2011	4,518.8	5,622.5	6,184.8	5,814.2	6,619.6	
Procurement	2011	0	0	0	0	0	
MILCON	2011	758.8	793.7	873.1	795.4	809.8	
Acq. O&M	2011	0	0	0	0	0	
Total		5,277.6	6,416.2	7,057.9	6,609.6	7,429.4	
PAUC	2011	10.091	12.268	13.495	12.638	14.205	
APUC	2011	.000	.000	.000	.000	.000	

Appropriation Category Deviation Explanations

PAUC Deviation Explanation

APUC Deviation Explanation

Budget Notes

Total End Item Quantity

Quantity Category	Current APB Quantity	Current Estimate Quantity
Development	523	523
Procurement	0	0
O&M-Acquired		

Quantity Notes

The RDT&E quantity reflects tons of chemical agent to be disposed by the Program Executive Office Assembled Chemical Weapons Alternatives. This number is 3,136 US tons and is composed of 2,613 US tons at PCAPP, and 523 US tons at BGCAPP.

Unit Cost
Chem Demil-ACWA

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Category (\$M) Base Year:	Current UCR Baseline	Current Estimate	% Change

Program Acquisition Unit Cost

Cost	\$12,415.7	\$12,779.6	
Quantity	3,136	3,136	
Unit Cost	\$3.96	\$4.08	2.93%

Average Procurement Unit Cost

Cost			
Quantity			
Unit Cost			

Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Category (\$M) Base Year:	Original UCR Baseline	Current Estimate	% Change

Program Acquisition Unit Cost

Cost	\$9,980.8	\$12,779.6	
Quantity	3,136	3,136	
Unit Cost	\$3.18	\$4.08	28.04%

Average Procurement Unit Cost

Cost			
Quantity			
Unit Cost			

Cost Growth Details

Current Baseline PAUC Breach Explanation

Current Baseline APUC Breach Explanation

Original Baseline PAUC Breach Explanation

Original Baseline APUC Breach Explanation

Impacts of Schedule Changes on Unit Cost

Impacts of Performance Changes on Unit Cost

Actions Taken or Proposed to Control Future Cost Growth

Pueblo (PCAPP)

Current UCR Baseline and Current Estimate (Base-Year Dollars)

Category (\$M) Base Year:2011	Current UCR Baseline	Current Estimate	% Change
Program Acquisition Unit Cost			
Cost	5,999.5	6,170.0	
Quantity	2,613	2613	
Unit Cost	2.296	2.361	2.84%
Average Procurement Unit Cost			
Cost	.0		
Quantity			
Unit Cost			

Original UCR Baseline and Current Estimate (Base-Year Dollars)

Category (\$M) Base Year:2011	Original UCR Baseline	Current Estimate	% Change
Program Acquisition Unit Cost			
Cost	4,703.2	6,170.0	
Quantity	2,613	2613	Significant
Unit Cost	1.800	2.361	31.19%
Average Procurement Unit Cost			
Cost			
Quantity			
Unit Cost			

Cost Growth Details

Current Baseline PAUC Breach Explanation

Current Baseline APUC Breach Explanation

Original Baseline PAUC Breach Explanation

The PEO ACWA APB for cost is at the program level, not the site/subprogram level. The PAUC for the overall PEO ACWA program is \$4.075M (BY 2011\$), which exceeds the Original APB by 28.02%.

Original Baseline APUC Breach Explanation

Impacts of Schedule Changes on Unit Cost

Impacts of Performance Changes on Unit Cost

Actions Taken or Proposed to Control Future Cost Growth

N/A

Blue Grass (BGCAPP)

Current UCR Baseline and Current Estimate (Base-Year Dollars)

Category (\$M) Base Year:2011	Current UCR Baseline	Current Estimate	% Change
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Program Acquisition Unit Cost

Cost	6,416.2	6,609.6	
Quantity	523	523	
Unit Cost	12.268	12.638	3.01%

Average Procurement Unit Cost

Cost	.0		
Quantity			
Unit Cost			

Original UCR Baseline and Current Estimate (Base-Year Dollars)

Category (\$M) Base Year:2011	Original UCR Baseline	Current Estimate	% Change
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Program Acquisition Unit Cost

Cost	5,277.6	6,609.6	
Quantity	523	523	
Unit Cost	10.091	12.638	25.24%

Average Procurement Unit Cost

Cost			
Quantity			
Unit Cost			

Cost Growth Details

Current Baseline PAUC Breach Explanation

Current Baseline APUC Breach Explanation

Original Baseline PAUC Breach Explanation

Original Baseline APUC Breach Explanation

Impacts of Schedule Changes on Unit Cost

Impacts of Performance Changes on Unit Cost

Actions Taken or Proposed to Control Future Cost Growth

Risk and Sensitivity Analysis

Chem Demil-ACWA

Risk and Sensitivity Analysis
Current Procurement Cost(December - 2022)
Original Baseline Estimate ()
Current Baseline Estimate ()

Schedule Risk		
Technical Risks		

Pueblo (PCAPP)

Risk and Sensitivity Analysis	
Current Procurement Cost(December - 2022)	
Revised Original Estimate (March - 2012)	
Current Baseline Estimate (March - 2022)	

Schedule Risk		
Technical Risks		

Blue Grass (BGCAPP)

Risk and Sensitivity Analysis	
Current Procurement Cost(December - 2022)	
Revised Original Estimate (March - 2012)	
Current Baseline Estimate (March - 2022)	

Schedule Risk		
Technical Risks		

Low Rate Initial Production

Chem Demil-ACWA

Item	Initial LRIP Decision	Current Total LRIP
------	-----------------------	--------------------

Approval Date

Approved Quantity

Reference

Start Year

End Year

Rationale if quantity exceeds 10% of the total number of articles to be procured:

Notes

Pueblo (PCAPP)

Item	Initial LRIP Decision	Current Total LRIP
------	-----------------------	--------------------

Approval Date

Approved Quantity

Reference

Start Year

End Year

Rationale if quantity exceeds 10% of the total number of articles to be procured:

Notes

Blue Grass (BGCAPP)

Item	Initial LRIP Decision	Current Total LRIP
------	-----------------------	--------------------

Approval Date

Approved Quantity

Reference

Start Year

End Year

Rationale if quantity exceeds 10% of the total number of articles to be procured:

Notes

Contracts & Efforts

Contract Data	
Contract Number	DAAA09-03-D-0023
Effort Number	1
Modification Number	
Award Date	06/13/2003
Definitization Date	06/01/2003
Order Number	
CAGE Code/CAGE Legal Name	3FT89/Bechtel Parsons Blue Grass
Contract Title	Blue Grass
Contract Address	Richmond, KY
Contracting Office	ACC Rock Island
Supported Phase	Development
Contract Strategy	FAR 15 (Negotiated)
Contract Type	Cost-Plus-Award-Fee
Modification Date	
Work Start Date	June 01, 2003
Technical Data Rights	
Work Completed	71.70%

Contracts/Effort Price, Quantity, and Performance (TY\$M)

Initial Target Price	Current Target Price	
\$138	\$5,276.2	
Initial Ceiling Price	Current Ceiling Price	
	\$5,276.2	
Contractor EAC	PM EAC	
\$5,100.6	\$5,507.8	
Initial Quantity	Current Quantity	Delivered Quantity
523	522	0
BAC	BCWP	ACWP
\$5,221.4	\$3,743.9	\$3,792.4

BCWS	Cost Variance	Schedule Variance
\$3,775.4	-\$48.5	-\$31.5

Contract Notes:

Contract Type(s):. BGCAPP: Currently Cost Plus Award Fee / Cost Plus Incentive Fee (CPAF/CPIF) contract. BGCAPP: PM EAC based on 2022 POE.

Factors Contributing to Cost Variance and Projected Effects on Program Costs**Factors Contributing to Schedule Variance and Projected Effects on Program Schedule**

Contract Data	
Contract Number	DAAA09-02-D-0025
Effort Number	1
Modification Number	
Award Date	09/27/2002
Definitization Date	09/30/2002
Order Number	
CAGE Code/CAGE Legal Name	1S307/Bechtel National
Contract Title	Pueblo
Contract Address	Reston, VA
Contracting Office	ACC Rock Island
Supported Phase	Development
Contract Strategy	FAR 15 (Negotiated)
Contract Type	Cost-Plus-Award-Fee
Modification Date	
Work Start Date	September 27, 2002
Technical Data Rights	
Work Completed	88.25%

Contracts/Effort Price, Quantity, and Performance (TY\$M)		
Initial Target Price	Current Target Price	
\$178.2	\$4,842.7	
Initial Ceiling Price	Current Ceiling Price	
	\$4,642.7	
Contractor EAC	PM EAC	
\$4,640.4	\$5,456.9	
Initial Quantity	Current Quantity	Delivered Quantity
2613	2613	0
BAC	BCWP	ACWP
\$4,414.5	\$3,895.9	\$4,144.6
BCWS	Cost Variance	Schedule Variance

\$3,811.9	-\$248.7	\$84
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Contract Notes:

Contract Type(s):. PCAPP: Currently Cost Plus Award Fee / Cost Plus Incentive Fee (CPAF/CPIF) contract. PCAPP: PM EAC based on 2022 POE.

Factors Contributing to Cost Variance and Projected Effects on Program Costs

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

External Government Activities

Activity Title		Government Entity	Supported Phase
CAGE		Work Start Date	
City		State/Province:	
Notes			

Activity Title		Government Entity		Supported Phase
CAGE		Work Start Date		
City		State/Province:		
Notes				

Activity Title		Government Entity		Supported Phase
CAGE		Work Start Date		
City		State/Province:		
Notes				

Deliveries and Expenditures

Chem Demil-ACWA

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	2,701	2,741	3,136	87.4%
Production				
Total Program Quantity Delivered	2,701	2,741	3,136	87.4%

Expended and Appropriated (TY \$M)

Years Appropriated to date: 26

Total Years Appropriated Funding (Current Baseline): 32

Percent Years Appropriated: 81.25%

Then-Year Funding Appropriated as Percentage of Total Acquisition Estimate: 86%

Then-Year Funding Expended as Percentage of Total Acquisition Estimate: 78%

Total Acquisition Cost: 14,286.2

Deliveries & Expenditures Notes:

As of 31 December 2022

Pueblo (PCAPP)

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	2,364	2,400	2,613	91.8%
Production				
Total Program Quantity Delivered	2364	2400	2613	91.8%

Expended and Appropriated (TY \$M)

Years Appropriated to date: 26

Total Years Appropriated Funding (Current Baseline): 32

Percent Years Appropriated: 81.25%

Then-Year Funding Appropriated as Percentage of Total Acquisition Estimate: 87.00%

Then-Year Funding Expended as Percentage of Total Acquisition Estimate: 81.00%

Total Acquisition Cost: 6,856.8

Deliveries & Expenditures Notes:

As of 31 December 2022

Blue Grass (BGCAPP)

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	337	341	523	65.2%
Production				
Total Program Quantity Delivered	337	341	523	65.2%

Expended and Appropriated (TY \$M)

Years Appropriated to date: 26

Total Years Appropriated Funding (Current Baseline): 32

Percent Years Appropriated: 81.25%

Then-Year Funding Appropriated as Percentage of Total Acquisition Estimate: 85.00%

Then-Year Funding Expended as Percentage of Total Acquisition Estimate: 76.00%

Total Acquisition Cost: 7,429.4

Deliveries & Expenditures Notes:

As of 31 December 2022

Operating and Support Costs

Chem Demil-ACWA

O&S Cost Breakdown:

Category (BY\$ Million)	
Unit-Level Manpower	
Unit Operations	
Maintenance	
Sustaining Support	
Continued System Improvements	
Other	
Total	.0

Cost Estimate Source: dated

O&S Cost Notes:

Total Program O&S Cost Compared with Baseline					
	Current Baseline				
	Objective (BY\$M)	Threshold (BY\$M)	Current Estimate (BY\$M)	Current Estimate (TY\$M)	Deviation
Total O&S	0	0			

Note:

None

O&S Cost Deviation Explanation

Pueblo (PCAPP)

O&S Cost Breakdown:

Category (BY\$ Million)	Pueblo (PCAPP)
Unit-Level Manpower	
Unit Operations	
Maintenance	
Sustaining Support	
Continued System Improvements	
Other	
Total	.0

Cost Estimate Source: POE dated September 23, 2021

O&S Cost Notes:

Total Program O&S Cost Compared with Baseline					
	Current Baseline				
	Objective (BY\$M)	Threshold (BY\$M)	Current Estimate (BY\$M)	Current Estimate (TY\$M)	Deviation
Total O&S	0	0	0.0		

Note:

O&S Cost Deviation Explanation

Blue Grass (BGCAPP)

O&S Cost Breakdown:

Category (BY\$ Million)	Blue Grass (BGCAPP)
Unit-Level Manpower	
Unit Operations	
Maintenance	
Sustaining Support	
Continued System Improvements	
Other	
Total	.0

Cost Estimate Source: POE dated September 23, 2021

O&S Cost Notes:

Total Program O&S Cost Compared with Baseline					
	Current Baseline				
	Objective (BY\$M)	Threshold (BY\$M)	Current Estimate (BY\$M)	Current Estimate (TY\$M)	Deviation
Total O&S	0	0	0.0		

Note:

O&S Cost Deviation Explanation

Operating and Support Costs - Disposal and Unitized Costs

Chem Demil-ACWA

Annual Unitized O&S Cost Definition and Calculation Relative to Total O&S Cost:

Sustainment Factors	System Name:	Antecedent System Name:
Quantity to Sustain		
Unit of Measure		
Unit Expected Service Life		

Base Year:

	System Name:	Antecedent System Name:
Unit-Level Manpower		
Unit Operations		
Maintenance		
Sustaining Support		
Continued System Improvements		
Other		
Total O&S	0.0	0.0

Disposal/Demilitarization Cost Estimate

(Base Year \$Millions)	System Name:	Antecedent System Name:
Total Disposal		

Cost Estimate Source - Disposal	
Type:	
Approval Authority and Date:	
Note:	
Disposal Cost Notes:	
Antecedent Estimate Assumptions:	
Sustainment Strategy:	

Antecedent Estimate Assumptions:

Pueblo (PCAPP)

Annual Unitized O&S Cost Definition and Calculation Relative to Total O&S Cost:

Sustainment Factors	System Name:	Antecedent System Name:
Quantity to Sustain		
Unit of Measure		
Unit Expected Service Life		

Base Year:

	System Name:	Antecedent System Name:
Unit-Level Manpower		
Unit Operations		
Maintenance		
Sustaining Support		
Continued System Improvements		
Other		
Total O&S	0.0	0.0

Disposal/Demilitarization Cost Estimate

(Base Year \$Millions)	System Name:	Antecedent System Name:
Total Disposal		

Cost Estimate Source - Disposal

Type:	
Approval Authority and Date:	
Note:	
Disposal Cost Notes:	
Antecedent Estimate Assumptions:	

Sustainment Strategy:
Antecedent Estimate Assumptions:

Blue Grass (BGCAPP)

Annual Unitized O&S Cost Definition and Calculation Relative to Total O&S Cost:

Sustainment Factors	System Name:	Antecedent System Name:
Quantity to Sustain		
Unit of Measure		
Unit Expected Service Life		

Base Year:

	System Name:	Antecedent System Name:
Unit-Level Manpower		
Unit Operations		
Maintenance		
Sustaining Support		
Continued System Improvements		
Other		
Total O&S	0.0	0.0

Disposal/Demilitarization Cost Estimate

(Base Year \$Millions)	System Name:	Antecedent System Name:
Total Disposal		

Cost Estimate Source - Disposal	
Type:	
Approval Authority and Date:	
Note:	

Disposal Cost Notes:

Antecedent Estimate Assumptions:

Sustainment Strategy:

Antecedent Estimate Assumptions: