

**FISCAL YEAR (FY) 2020  
BUDGET ESTIMATES**

**February 2019**



**CHEMICAL AGENTS AND MUNITIONS DESTRUCTION, DEFENSE**

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UNCLASSIFIED

Department of the Army  
FY 2020 President's Budget  
Exhibit P-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Mar 2019

| <u>Appropriation</u>                | <u>FY 2018</u><br><u>(Base + OCO)</u> | <u>FY 2019</u><br><u>Base Enacted</u> | <u>FY 2019</u><br><u>OCO Enacted</u> | <u>FY 2019</u><br><u>Total Enacted</u> |
|-------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|----------------------------------------|
| Chem Agents & Munitions Destruction | 961,732                               | 993,816                               |                                      | 993,816                                |
| Total Department of the Army        | 961,732                               | 993,816                               |                                      | 993,816                                |

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Department of the Army  
 FY 2020 President's Budget  
 Exhibit P-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Mar 2019

| <u>Appropriation</u>                | <u>FY 2020<br/>Base</u> | <u>FY 2020<br/>OCO for Base<br/>Requirements</u> | <u>FY 2020<br/>OCO for<br/>Direct War<br/>and Enduring<br/>Costs</u> | <u>FY 2020<br/>Total<br/>OCO</u> |
|-------------------------------------|-------------------------|--------------------------------------------------|----------------------------------------------------------------------|----------------------------------|
| Chem Agents & Munitions Destruction | 985,499                 |                                                  |                                                                      |                                  |
| Total Department of the Army        | 985,499                 |                                                  |                                                                      |                                  |

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Department of the Army  
FY 2020 President's Budget  
Exhibit P-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Mar 2019

| <u>Appropriation</u>                | <u>FY 2020<br/>Total<br/>(Base + OCO)</u> |
|-------------------------------------|-------------------------------------------|
| Chem Agents & Munitions Destruction | 985,499                                   |
| Total Department of the Army        | 985,499                                   |

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## UNCLASSIFIED

Defense-Wide  
 FY 2020 President's Budget  
 Exhibit P-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Mar 2019

## Appropriation: Chem Agents &amp; Munitions Destruction

| <u>Budget Activity</u>                          | <u>FY 2018<br/>(Base + OCO)</u> | <u>FY 2019<br/>Base Enacted</u> | <u>FY 2019<br/>OCO Enacted</u> | <u>FY 2019<br/>Total Enacted</u> |
|-------------------------------------------------|---------------------------------|---------------------------------|--------------------------------|----------------------------------|
| 01. Operation And Maintenance                   | 104,237                         | 105,997                         |                                | 105,997                          |
| 02. Research, Development, Test, And Evaluation | 839,414                         | 886,728                         |                                | 886,728                          |
| 03. Procurement                                 | 18,081                          | 1,091                           |                                | 1,091                            |
| Total Chem Agents & Munitions Destruction       | 961,732                         | 993,816                         |                                | 993,816                          |

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Defense-Wide  
FY 2020 President's Budget  
Exhibit P-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Mar 2019

Appropriation: Chem Agents & Munitions Destruction

| <u>Budget Activity</u>                          | <u>FY 2020<br/>Base</u> | <u>FY 2020<br/>OCO for Base<br/>Requirements</u> | <u>FY 2020<br/>OCO for<br/>Direct War<br/>and Enduring<br/>Costs</u> | <u>FY 2020<br/>Total<br/>OCO</u> |
|-------------------------------------------------|-------------------------|--------------------------------------------------|----------------------------------------------------------------------|----------------------------------|
| 01. Operation And Maintenance                   | 107,351                 |                                                  |                                                                      |                                  |
| 02. Research, Development, Test, And Evaluation | 875,930                 |                                                  |                                                                      |                                  |
| 03. Procurement                                 | 2,218                   |                                                  |                                                                      |                                  |
| Total Chem Agents & Munitions Destruction       | 985,499                 |                                                  |                                                                      |                                  |

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Defense-Wide  
FY 2020 President's Budget  
Exhibit P-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Mar 2019

Appropriation: Chem Agents & Munitions Destruction

| Budget Activity                                 | FY 2020<br>Total<br>(Base + OCO) |
|-------------------------------------------------|----------------------------------|
| 01. Operation And Maintenance                   | 107,351                          |
| 02. Research, Development, Test, And Evaluation | 875,930                          |
| 03. Procurement                                 | 2,218                            |
| Total Chem Agents & Munitions Destruction       | 985,499                          |



## UNCLASSIFIED

Defense-Wide  
 FY 2020 President's Budget  
 Exhibit P-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Mar 2019

Appropriation: 0390D Chem Agents &amp; Munitions Destruction

| Line<br>No                                                             | Item Nomenclature             | Ident<br>Code | FY 2018<br>(Base + OCO) |      | FY 2019<br>Base Enacted |      | FY 2019<br>OCO Enacted |      | FY 2019<br>Total Enacted |      | S<br>e<br>c |
|------------------------------------------------------------------------|-------------------------------|---------------|-------------------------|------|-------------------------|------|------------------------|------|--------------------------|------|-------------|
|                                                                        |                               |               | Quantity                | Cost | Quantity                | Cost | Quantity               | Cost | Quantity                 | Cost |             |
| <u>Budget Activity 01: Operation And Maintenance</u>                   |                               |               |                         |      |                         |      |                        |      |                          |      |             |
| Operation & Maintenance                                                |                               |               |                         |      |                         |      |                        |      |                          |      |             |
| 1                                                                      | Chem Demilitarization - O&M   |               | 104,237                 |      | 105,997                 |      |                        |      | 105,997                  |      | U           |
| Total Operation And Maintenance                                        |                               |               | 104,237                 |      | 105,997                 |      |                        |      | 105,997                  |      |             |
| <u>Budget Activity 02: Research, Development, Test, And Evaluation</u> |                               |               |                         |      |                         |      |                        |      |                          |      |             |
| RDT&E                                                                  |                               |               |                         |      |                         |      |                        |      |                          |      |             |
| 2                                                                      | Chem Demilitarization - RDT&E |               | 839,414                 |      | 886,728                 |      |                        |      | 886,728                  |      | U           |
| Total Research, Development, Test, And Evaluation                      |                               |               | 839,414                 |      | 886,728                 |      |                        |      | 886,728                  |      |             |
| <u>Budget Activity 03: Procurement</u>                                 |                               |               |                         |      |                         |      |                        |      |                          |      |             |
| Procurement                                                            |                               |               |                         |      |                         |      |                        |      |                          |      |             |
| 3                                                                      | Chem Demilitarization - Proc  |               | 18,081                  |      | 1,091                   |      |                        |      | 1,091                    |      | U           |
| Total Procurement                                                      |                               |               | 18,081                  |      | 1,091                   |      |                        |      | 1,091                    |      |             |
| Total Chem Agents & Munitions Destruction                              |                               |               | 961,732                 |      | 993,816                 |      |                        |      | 993,816                  |      |             |

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Defense-Wide  
 FY 2020 President's Budget  
 Exhibit P-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Mar 2019

Appropriation: 0390D Chem Agents & Munitions Destruction

| Line No                                                                | Item Nomenclature               | Ident Code | FY 2020 Base |         | FY 2020 OCO for Base Requirements |      | FY 2020 OCO for Direct War and Enduring Costs |      | FY 2020 Total OCO |      | S e c |
|------------------------------------------------------------------------|---------------------------------|------------|--------------|---------|-----------------------------------|------|-----------------------------------------------|------|-------------------|------|-------|
|                                                                        |                                 |            | Quantity     | Cost    | Quantity                          | Cost | Quantity                                      | Cost | Quantity          | Cost |       |
| <u>Budget Activity 01: Operation And Maintenance</u>                   |                                 |            |              |         |                                   |      |                                               |      |                   |      |       |
| Operation & Maintenance                                                |                                 |            |              |         |                                   |      |                                               |      |                   |      |       |
|                                                                        | 1 Chem Demilitarization - O&M   |            |              | 107,351 |                                   |      |                                               |      |                   |      | U     |
| Total Operation And Maintenance                                        |                                 |            |              | 107,351 |                                   |      |                                               |      |                   |      |       |
| <u>Budget Activity 02: Research, Development, Test, And Evaluation</u> |                                 |            |              |         |                                   |      |                                               |      |                   |      |       |
| RDT&E                                                                  |                                 |            |              |         |                                   |      |                                               |      |                   |      |       |
|                                                                        | 2 Chem Demilitarization - RDT&E |            |              | 875,930 |                                   |      |                                               |      |                   |      | U     |
| Total Research, Development, Test, And Evaluation                      |                                 |            |              | 875,930 |                                   |      |                                               |      |                   |      |       |
| <u>Budget Activity 03: Procurement</u>                                 |                                 |            |              |         |                                   |      |                                               |      |                   |      |       |
| Procurement                                                            |                                 |            |              |         |                                   |      |                                               |      |                   |      |       |
|                                                                        | 3 Chem Demilitarization - Proc  |            |              | 2,218   |                                   |      |                                               |      |                   |      | U     |
| Total Procurement                                                      |                                 |            |              | 2,218   |                                   |      |                                               |      |                   |      |       |
| Total Chem Agents & Munitions Destruction                              |                                 |            |              | 985,499 |                                   |      |                                               |      |                   |      |       |

## UNCLASSIFIED

Defense-Wide  
 FY 2020 President's Budget  
 Exhibit P-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Mar 2019

Appropriation: 0390D Chem Agents &amp; Munitions Destruction

| Line<br>No                                                             | Item Nomenclature             | Ident<br>Code | FY 2020<br>Total<br>(Base + OCO)<br>Quantity | S<br>e<br>c<br>o<br>s<br>t |
|------------------------------------------------------------------------|-------------------------------|---------------|----------------------------------------------|----------------------------|
| <u>Budget Activity 01: Operation And Maintenance</u>                   |                               |               |                                              |                            |
| Operation & Maintenance                                                |                               |               |                                              |                            |
| 1                                                                      | Chem Demilitarization - O&M   |               | 107,351                                      | U                          |
| Total Operation And Maintenance                                        |                               |               | 107,351                                      |                            |
| <u>Budget Activity 02: Research, Development, Test, And Evaluation</u> |                               |               |                                              |                            |
| RDT&E                                                                  |                               |               |                                              |                            |
| 2                                                                      | Chem Demilitarization - RDT&E |               | 875,930                                      | U                          |
| Total Research, Development, Test, And Evaluation                      |                               |               | 875,930                                      |                            |
| <u>Budget Activity 03: Procurement</u>                                 |                               |               |                                              |                            |
| Procurement                                                            |                               |               |                                              |                            |
| 3                                                                      | Chem Demilitarization - Proc  |               | 2,218                                        | U                          |
| Total Procurement                                                      |                               |               | 2,218                                        |                            |
| Total Chem Agents & Munitions Destruction                              |                               |               | 985,499                                      |                            |

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**FISCAL YEAR (FY) 2020 BUDGET ESTIMATES  
CHEMICAL AGENTS AND MUNITIONS DESTRUCTION, DEFENSE**

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**CHEMICAL AGENTS AND MUNITIONS DESTRUCTION, DEFENSE**

**APPROPRIATION LANGUAGE**

**Fiscal Year 2020**

For expenses not otherwise provided for, necessary for the destruction of the United States stockpile of lethal chemical agents and munitions in accordance with the provisions of Section 1412 of the Department of Defense Authorization Act for Fiscal Year 1986 (50 U.S.C. 1521), and for the destruction of other chemical warfare materials that are not in the chemical weapons stockpile, \$985,499,000 of which:

(1) \$107,351,000 shall be for operations and maintenance, of which not less than \$52,402,000 shall be for the Chemical Stockpile Emergency Preparedness Program, consisting of \$22,394,000 for activities on military installations and \$30,008,000, to remain available until September 30, 2021, to assist State and local governments;

(2) \$875,930,000, to remain available until September 30, 2021, shall be for research, development, test and evaluation, of which \$869,430,000 shall be only for the Assembled Chemical Weapons Alternatives (ACWA) Program;

(3) \$2,218,000 to remain available until September 30, 2022, shall be for procurement for the Chemical Emergency Preparedness Program to assist State and local governments.

**JUSTIFICATION OF BUDGET ESTIMATE SUBMISSION  
CHEMICAL AGENTS AND MUNITIONS DESTRUCTION, DEFENSE**

**APPROPRIATION JUSTIFICATION**

| (In Thousands of Dollars) |                  |
|---------------------------|------------------|
| <b>FY 2020 Estimate</b>   | <b>\$985,499</b> |
| <b>FY 2019 Enacted</b>    | <b>\$993,816</b> |
| <b>FY 2018 Actual</b>     | <b>\$961,732</b> |

**Part I - Purpose and Scope**

The Chemical Demilitarization Program is a national program of high significance to the Army, the Departments of Defense and State, the Administration, the Congress, and the international community. This is a congressionally mandated program. The objective of the Chemical Demilitarization Program is to destroy the U.S. inventory of lethal chemical agents and munitions and related material, thus avoiding future risks and costs associated with its continued storage. The Chemical Demilitarization Program supports the international initiatives to rid the world of chemical weapons, as outlined in the Chemical Weapons Convention (CWC).

The Chemical Demilitarization Program is this nation's response to the mandate of public law and commitments under the CWC. The program is established by and subject to the provisions outlined in Title 50 United States Code (U.S.C.) Section 1521 (as amended), which mandates that the U.S. chemical weapons stockpile must be destroyed by the deadline established by the CWC and under no circumstances later than December 31, 2023.

The United States ratified the CWC on April 25, 1997. The CWC is an international treaty banning development, production, stockpiling and use of chemical weapons. Under the treaty, chemical weapons were to be destroyed by April 29, 2007, with a possible one-time extension until April 29, 2012. The Secretary of Defense notified Congress on April 10, 2006 that the U.S. would request an extension of the destruction deadline to April 29, 2012. The notification also stated that the U.S. would not achieve that milestone based on the current schedules, but that the Department of Defense would continue requesting resources needed to complete destruction as close to the 2012 deadline as practicable. A formal request for the

extension was presented to the Organization for the Prohibition of Chemical Weapons (OPCW), an international organization overseeing implementation of the CWC provisions, and approved by OPCW in December 2006. All nations that are party to the CWC must comply with international law and are subject to a stringent inspection regime conducted by the OPCW. The Department's policy is to safely and efficiently destroy the U.S. lethal chemical stockpile as soon as possible.

The Chemical Demilitarization Program previously consisted of two Acquisition Category 1D Major Defense Acquisition Programs (MDAP) - Chemical Demilitarization-U.S. Army Chemical Materials Activity (CMA) and Chemical Demilitarization-Assembled Chemical Weapons Alternatives (ACWA). The CMA MDAP is currently inactive as a result of completing destruction of the seven chemical weapons stockpiles. The Army has responsibility for oversight and management of CMA with the Director of the CMA as the delegated authority for execution of the Chemical Stockpile Emergency Preparedness Project (CSEPP), and for managing the Recovered Chemical Warfare Material (RCWM) Program Support Functions. Separately, the Assistant Secretary of the Army for Installations, Energy and the Environment is delegated by the Secretary of the Army to fulfill the Executive Agent responsibilities for the Recovered Chemical Warfare Material (RCWM) Program within the United States assigned by the DoD. The Chemical Demilitarization Program is responsible for ensuring the RCWM Support Functions are adequately funded in support of explosive and munitions emergencies within the United States. In accordance with U.S. law, the Office of the Secretary of Defense (OSD) has direct oversight of the ACWA Program, which is responsible for neutralization destruction facilities in Colorado and Kentucky.

**The Chemical Stockpile Elimination (CSE) Project:** The CSE Project was responsible for the safe and environmentally sound destruction of the United States unitary chemical stockpiles originally located at one site outside the continental United States (OCONUS) known as Johnston Atoll Chemical Agent Disposal System, six continental United States (CONUS) sites (at Aberdeen, Maryland; Newport, Indiana; Pine Bluff, Arkansas; Anniston, Alabama; Umatilla, Oregon; and Tooele, Utah), and the Chemical Agent Munitions Destruction System (CAMDS) located in Tooele, Utah. These sites have now completed destruction of their stockpiles totaling 89.75 percent of the U.S. chemical weapons stockpile, facility closure, and closure of their respective operating permits.



**The Recovered Chemical Warfare Material (RCWM) Program Support Functions:** The RCWM support functions are a critical aspect to the execution of DoD's RCWM Program that include: sustainment and training of personnel; maintenance of equipment in a deployable state; support of explosives or munitions emergencies that involve munitions and certain materials of interest, assessing munitions and other materials of interest, and destroying RCWM; technical expertise, documentation development and project management; archive research of chemical warfare material sites; and Research, Development, Test and Evaluation (RDT&E) efforts to meet program requirements.

The RCWM Program Support Functions managed by the CMA's Recovered Chemical Material Directorate (RCMD) also includes transporting munitions and other material of interest; and RCWM or research material to support an assessment, secure storage, destruction efforts, and research and development efforts as necessary. Transport of RCWM is done in accordance with 50 U.S.C 1511-1521 and generally includes coordination with local, state, and federal officials. The CMA's RCMD coordinates transportation activities through the U.S. Army 20<sup>th</sup> Support Command.

**The Chemical Stockpile Emergency Preparedness Project (CSEPP):** The CSEPP is a complementary effort to the Assembled Chemical Weapons Alternatives Program to enhance protection of the civilian population during storage and destruction of the U.S. chemical weapons stockpile in Colorado and Kentucky. CSEPP operations and requirements at the Alabama, Arkansas, Maryland, Indiana, Oregon and Utah locations have been completed with the elimination of the stockpiles at these sites. The U.S. Army and the Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) provide enhanced emergency preparedness and response capabilities to the communities surrounding the two remaining storage sites (Colorado and Kentucky), and jointly manage the CSEPP activities. DHS/FEMA has total responsibility and accountability for working with State and local governments to enhance the required off-post emergency preparedness within established resources. The Army manages on-post emergency response/preparedness and provides technical support for both on-post and off-post emergency preparedness. An Integrated Process Team (IPT) concept is the primary management tool used by the Army, DHS/FEMA, State, and local governments to address inter-jurisdictional issues and meet requirements of 50 U.S.C. 1521 for maximum protection for the general public and workers.

**The Assembled Chemical Weapons Alternatives (ACWA) Program:** The Omnibus Consolidated Appropriation Act for FY 1997 (Public Law 104-208) directed that the Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)), conduct a program to identify and demonstrate not fewer than two alternatives to the baseline incineration process for the demilitarization of assembled chemical munitions. In 2002, Public Law 107-248 assigned the Program Manager (PM) ACWA the responsibility for the destruction of the chemical weapons stockpiles at the Pueblo Chemical Depot in Colorado and the Blue Grass Army Depot in Kentucky. In June 2011, DoD certified a restructured ACWA program pursuant to 10 U.S.C 2433a. In February 2012, the Program Manager position was changed to a Program Executive Officer position. In March 2012, the ACWA program received Milestone B approval and an approved Acquisition Program Baseline that reflects revised cost and schedule estimates. The restructured ACWA program and the PEO's estimates underlying the restructured program are the basis for the program milestones and funding requirements reflected in this document. In July 2012, permanent orders were signed to re-designate the U.S. Army Element, ACWA to the Program Executive Office (PEO), ACWA effective October 1, 2012.

In March 2015, the ACWA program commenced destruction of the remaining 10.25 percent of the U.S chemical weapons stockpile using the Pueblo Chemical agent-Destruction Pilot Plant (PCAPP) Explosive Destruction System (EDS) in Colorado. On September 7, 2016, the PCAPP main destruction facility commenced chemical-agent operations.

## Part II - Justification of Funds Required

The funds requested in this budget submission are required to carry out the Congressional mandate of 50 U.S.C 1521 and the commitments of this nation under the Chemical Weapons Convention (CWC). This document provides justification for FY 2020 financial requirements in support of the Chemical Demilitarization Program, which is budgeted in the Chemical Agents and Munitions Destruction, Defense appropriation. The following paragraphs provide a top level summary of the activities planned for FY 2020 that require funding.

The Chemical Demilitarization Program will continue to support the Recovered Chemical Warfare Material (RCWM) Program by ensuring the RCWM Support Functions are adequately funded to support explosive and munitions emergencies with the United States including: the assessment of munitions and other materials of interest with an unknown liquid fill and the destruction of those munitions and materials that are determined to be RCWM.

The Chemical Stockpile Emergency Preparedness Project (CSEPP) will continue to support chemical stockpile emergency preparedness activities on the Pueblo, CO, and Blue Grass, KY, depots and in the off-post communities surrounding those facilities where chemical weapons stockpiles are stored.

The Assembled Chemical Weapons Alternatives (ACWA) program activities at the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) will include the following efforts. PCAPP Main Plant: continuation of chemical-agent operations, and PCAPP EDT: completion of facilitization and systemization of PCAPP SDCs, beginning of PCAPP SDC chemical-agent operations and continuation of energetics destruction at Anniston SDC. The ACWA program activities at the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) will include the following efforts. BCGAPP Main Plant: completion of systemization and start of chemical-agent operations, and BGCAPP EDT: completion of chemical-agent campaign.

Part III - Milestones

**Major Milestones for the Recovered Chemical Warfare Material Program Support Functions are as follows:**

Support of Explosives or Munitions Emergency Responses to munitions and certain materials of interest encountered within the United States including the assessment, packaging, transportation, storage and destruction July 2009 to FY 2027

**Major Milestones for the Chemical Stockpile Emergency Preparedness Project are as follows:**

Provide response capabilities up to 180 days after completion of demilitarization operations at:  
Pueblo Chemical Depot, Colorado FY 2024  
Blue Grass Chemical Activity, Kentucky FY 2024

**Major Milestones for the Assembled Chemical Weapons Alternatives Program are as follows:**

**PCAPP:**

|                                                                            |         |
|----------------------------------------------------------------------------|---------|
| - Main Plant Chemical-Agent Operations: Continue chemical-agent operations | FY 2020 |
| - PCAPP EDT: Complete Facilitization and Systemization of PCAPP SDCs       | FY 2020 |
| - PCAPP SDC Chemical-Agent Operations: Begin chemical-agent operations     | FY 2020 |
| - Anniston SDC: Continue energetics destruction                            | FY 2020 |

**BGCAPP:**

|                                                                         |         |
|-------------------------------------------------------------------------|---------|
| - Main Plant: Complete systemization                                    | FY 2020 |
| - Main Plant Chemical-Agent Operations: Begin chemical-agent operations | FY 2020 |
| - BGCAPP EDT: Complete chemical-agent campaign                          | FY 2020 |

## Budget Activity 1: Operations and Maintenance

| (In Thousands of Dollars) |           |
|---------------------------|-----------|
| FY 2020 Estimate          | \$107,351 |
| FY 2019 Enacted           | \$105,997 |
| FY 2018 Actual            | \$104,237 |

### Purpose and Scope

This budget activity provides for functions performed in support of the DoD's Recovered Chemical Warfare Material (RCWM) Program and emergency preparedness activities under the Chemical Stockpile Emergency Preparedness Project (CSEPP).

### Justification of Funds Required

Funds requested in FY 2020 are necessary to maintain support to the Chemical Demilitarization Program. Operations financed by this budget activity in FY 2020 include:

- (1) RCWM Program Support Function requirements in support of explosives and munitions emergency responses within the United States, and maintenance and logistics support for RCWM mobile systems and supporting equipment.
- (2) Chemical Stockpile Emergency Preparedness Project (CSEPP) support for enhanced emergency preparedness and response capabilities at the State and local levels of government and at the remaining two operational chemical stockpile storage installations (Colorado and Kentucky).

In addition, \$10 million of Funded Reimbursable Authority is needed to respond to requests by the Services; other government agencies; and foreign countries when authorized by the Secretary of Defense, for assistance in the storage, assessment and destruction of chemical agents and munitions.

## Budget Activity 1: Operations and Maintenance

### Justification by Program

#### Recovered Chemical Warfare Material (RCWM) Program Support Functions:

**Sustainment of Personnel:** The FY 2020 budget request will fund the following personnel: RCMD office; matrix labor support from U.S. Army Research, Development and Engineering Command; RCWM Integration Office; and sustainment and training of Mobile Munitions Assessment System (MMAS) and Explosive Destruction System (EDS) crews.

**Maintenance of Equipment:** The FY 2020 budget request will fund activities to ensure the RCWM Program assessment and destruction assets are maintained in a deployable condition. The FY 2020 budget request also provides for the use of the Chemical Demilitarization Training Facility to support this ongoing mission.

**Support to Explosives and Munitions Emergency Response:** The FY 2020 budget request will fund the capability to provide time-critical responses, packaging, assessments of munitions and certain material of interest, the destruction of RCWM within the United States; and the disposal of generated hazardous waste.

**Programmatics:** The FY 2020 budget request will fund programmatic activities such as: procurement and contract evaluation support, development of planning and operational documentation, program and public affairs activities, system test and evaluation, and CMA Headquarters management and oversight of the RCWM Program Support Functions.

**Archive Research:** The FY 2020 budget request will fund research and analysis of historical records related to chemical weapons production, movement, testing, and disposal to provide critical site specific information.

**Work Performed By:** The CMA's Recovered Chemical Material Directorate is located at Aberdeen Proving Ground, Maryland, and is the government's technical organization that maintains and manages the provisions of the RCWM Program Support Functions. Primary Army activities that support RCMD in the provision of the RCWM Program Support Functions are: Army Research,

## **Budget Activity 1: Operations and Maintenance**

Development and Engineering Command (RDECOM), Edgewood Chemical Biological Center (ECBC), Edgewood, Maryland; and the U.S. Army Forces Command, 20th Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) Command, CBRNE Analytical and Remediation Activity (CARA), Edgewood, Maryland. Other government agencies and contractors that support RCMD include: General Physics (GP), Columbia, Maryland; Sandia National Laboratory (SNL), Albuquerque, New Mexico; Idaho National Laboratory (INL), Boise, Idaho; Booz Allen Hamilton, McLean, Virginia; GSI Pacific, Boulder, Colorado; and CALIBRE Systems, Alexandria, Virginia.

### **Chemical Stockpile Emergency Preparedness Project:**

**On-Post Program Management:** The FY 2020 budget request will fund personnel, program support and oversight, travel, supplies and contract support.

**On-Post Mission:** The FY 2020 budget request will fund the following requirements: emergency planner/response personnel for the two chemical weapons stockpile storage installations; Army administration; on-post training and annual joint exercises; Army public education and awareness projects; technical planning support; and operations and maintenance of on-post alert and notification systems, data automation systems, communications systems, emergency operation centers, and emergency preparedness and response capabilities in Colorado and Kentucky. This budget request also provides funding for Army-managed technical support for sustaining both on-post and off-post emergency preparedness and response capabilities.

**Off-Post Mission:** The FY 2020 budget request will fund the following requirements: emergency planner/response personnel for DHS/FEMA, Colorado and Kentucky State and local governments; DHS/FEMA, Colorado and Kentucky State and local administration; off-post training, local exercises, and annual joint exercises; DHS/FEMA, Colorado and Kentucky State and local public outreach/education projects; and operations and maintenance of off-post alert and notification systems, automation systems, communications systems, emergency operations centers, Joint Information Centers, coordinated plans, medical support capabilities, and protective action capabilities including emergency preparedness and response. This budget request also provides funding for DHS/FEMA managed technical support for off-post emergency preparedness and response capabilities, off-post protective actions projects, and joint on-post/off-post exercises.

**Budget Activity 1: Operations and Maintenance**

**CHEMICAL DEMILITARIZATION**  
**Operation and Maintenance, Defense-Wide**  
**Fiscal Year (FY) 2020 President's Budget**

Operation and Maintenance, Defense-Wide Summary (\$ in thousands)

Budget Activity (BA) 1: Chemical Agents and Munitions, Destruction, Defense Exhibit OP-5

|            | FY 2018        | Price         | Program       | FY 2019        | Price         | Program       | FY 2020         |
|------------|----------------|---------------|---------------|----------------|---------------|---------------|-----------------|
|            | <u>Actuals</u> | <u>Change</u> | <u>Change</u> | <u>Enacted</u> | <u>Change</u> | <u>Change</u> | <u>Estimate</u> |
| Chem Demil | 104,237        | 1,871         | -111          | 105,997        | 2,112         | -758          | 107,351         |

**I. Description of Operations Financed:** See Pages 8 - 10 of this document.

**II. Force Structure Summary:**

N/A



Budget Activity 1: Operations and Maintenance

**CHEMICAL DEMILITARIZATION**  
**Operation and Maintenance, Defense-Wide**  
**Fiscal Year (FY) 2020 President's Budget**

**III. Financial Summary (\$ in thousands)**

| A. BA Subactivities                                                           | FY 2019            |                   |                      |            |               |                    |               | FY 2020<br>Estimate |
|-------------------------------------------------------------------------------|--------------------|-------------------|----------------------|------------|---------------|--------------------|---------------|---------------------|
|                                                                               | FY 2018<br>Actuals | Budget<br>Request | Congressional Action |            |               | Current<br>Enacted |               |                     |
|                                                                               |                    |                   | Amount               | Percent    | Appropriated  |                    |               |                     |
| <b>CSEPP</b>                                                                  | <b>49,401</b>      | <b>52,735</b>     | <b>0</b>             | <b>0.0</b> | <b>52,735</b> | <b>52,735</b>      | <b>52,402</b> |                     |
| CSEPP Off-Post Mission                                                        | 28,356             | 31,135            | 0                    | 0.0        | 31,135        | 31,135             | 30,008        |                     |
| CSEPP On-Post Mission                                                         | 18,873             | 19,213            | 0                    | 0.0        | 19,213        | 19,213             | 19,966        |                     |
| CSEPP On-Post Program<br>Management                                           | 2,172              | 2,387             | 0                    | 0.0        | 2,387         | 2,387              | 2,428         |                     |
| <b>RCWM Program Support</b>                                                   | <b>54,836</b>      | <b>53,262</b>     | <b>0</b>             | <b>0.0</b> | <b>53,262</b> | <b>53,262</b>      | <b>54,949</b> |                     |
| <b>Functions</b>                                                              |                    |                   |                      |            |               |                    |               |                     |
| RCWM Program -<br>Maintenance of<br>Equipment                                 | 0                  | 11,451            | 0                    | 0.0        | 11,451        | 11,451             | 14,630        |                     |
| RCWM Program -<br>Operations                                                  | 37,730             | 0                 | 0                    | n/a        | 0             | 0                  | 0             |                     |
| RCWM Program -<br>Support to Explosives<br>or Munitions Emergency<br>Response | 0                  | 15,020            | 0                    | 0.0        | 15,020        | 15,020             | 10,070        |                     |
| RCWM Program -<br>Sustainment of<br>Personnel                                 | 0                  | 15,065            | 0                    | 0.0        | 15,065        | 15,065             | 15,538        |                     |
| RCWM Program - Archive<br>Research                                            | 0                  | 2,021             | 0                    | 0.0        | 2,021         | 2,021              | 1,842         |                     |
| RCWM Program - Program<br>Management                                          | 7,136              | 0                 | 0                    | n/a        | 0             | 0                  | 0             |                     |
| RCWM Program -<br>Programmatic Support<br>Activities                          | 9,970              | 0                 | 0                    | n/a        | 0             | 0                  | 0             |                     |

Budget Activity 1: Operations and Maintenance

CHEMICAL DEMILITARIZATION  
 Operation and Maintenance, Defense-Wide  
 Fiscal Year (FY) 2020 President's Budget

III. Financial Summary (\$ in thousands)

|                                | FY 2019                   |                          |                             |                |                     |                           |                            |
|--------------------------------|---------------------------|--------------------------|-----------------------------|----------------|---------------------|---------------------------|----------------------------|
|                                | FY 2018<br><u>Actuals</u> | Budget<br><u>Request</u> | <u>Congressional Action</u> |                |                     | Current<br><u>Enacted</u> | FY 2020<br><u>Estimate</u> |
|                                |                           |                          | <u>Amount</u>               | <u>Percent</u> | <u>Appropriated</u> |                           |                            |
| <b>A. BA Subactivities</b>     |                           |                          |                             |                |                     |                           |                            |
| RCWM Program -<br>Programmatic | 0                         | 9,705                    | 0                           | 0.0            | 9,705               | 9,705                     | 12,869                     |
| <b>Total</b>                   | <b>104,237</b>            | <b>105,997</b>           | <b>0</b>                    | <b>0.0</b>     | <b>105,997</b>      | <b>105,997</b>            | <b>107,351</b>             |

Budget Activity 1: Operations and Maintenance

CHEMICAL DEMILITARIZATION  
 Operation and Maintenance, Defense-Wide  
 Fiscal Year (FY) 2020 President's Budget

III. Financial Summary (\$ in thousands)

| <b>B. <u>Reconciliation Summary</u></b>        | <b>Change</b>                 | <b>Change</b>                 |
|------------------------------------------------|-------------------------------|-------------------------------|
|                                                | <b><u>FY 2019/FY 2019</u></b> | <b><u>FY 2019/FY 2020</u></b> |
| <b>Baseline Funding</b>                        | <b>105,997</b>                | <b>105,997</b>                |
| Congressional Adjustments (Distributed)        |                               |                               |
| Congressional Adjustments (Undistributed)      |                               |                               |
| Adjustments to Meet Congressional Intent       |                               |                               |
| Congressional Adjustments (General Provisions) |                               |                               |
| <b>Subtotal Appropriated Amount</b>            | <b>105,997</b>                |                               |
| Fact-of-Life Changes (2019 to 2019 Only)       |                               |                               |
| <b>Subtotal Baseline Funding</b>               | <b>105,997</b>                |                               |
| Supplemental                                   |                               |                               |
| Reprogrammings                                 |                               |                               |
| Price Changes                                  |                               | 2,112                         |
| Functional Transfers                           |                               |                               |
| Program Changes                                |                               | -758                          |
| <b>Current Estimate</b>                        | <b>105,997</b>                | <b>107,351</b>                |
| Less: Wartime Supplemental                     |                               |                               |
| <b>Normalized Current Estimate</b>             | <b>105,997</b>                |                               |

Budget Activity 1: Operations and Maintenance

CHEMICAL DEMILITARIZATION  
Operation and Maintenance, Defense-Wide  
Fiscal Year (FY) 2020 President's Budget

III. Financial Summary (\$ in thousands)

| <u>C. Reconciliation of Increases and Decreases</u>                                                                                                                                                                                                                                    | <u>Amount</u> | <u>Totals</u>  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|
| <b>FY 2019 President's Budget Request (Amended, if applicable)</b>                                                                                                                                                                                                                     |               | <b>105,997</b> |
| 1. Congressional Adjustments                                                                                                                                                                                                                                                           |               |                |
| a. Distributed Adjustments                                                                                                                                                                                                                                                             |               |                |
| b. Undistributed Adjustments                                                                                                                                                                                                                                                           |               |                |
| c. Adjustments to Meet Congressional Intent                                                                                                                                                                                                                                            |               |                |
| d. General Provisions                                                                                                                                                                                                                                                                  |               |                |
| <b>FY 2019 Appropriated Amount</b>                                                                                                                                                                                                                                                     |               | <b>105,997</b> |
| 2. War-Related and Disaster Supplemental Appropriations                                                                                                                                                                                                                                |               |                |
| 3. Fact-of-Life Changes                                                                                                                                                                                                                                                                |               |                |
| <b>FY 2019 Baseline Funding</b>                                                                                                                                                                                                                                                        |               | <b>105,997</b> |
| 4. Reprogrammings (Requiring 1415 Actions)                                                                                                                                                                                                                                             |               |                |
| <b>Revised FY 2019 Enacted</b>                                                                                                                                                                                                                                                         |               | <b>105,997</b> |
| 5. Less: Item 2, War-Related and Disaster Supplemental Appropriations and Item 4, Reprogrammings                                                                                                                                                                                       |               |                |
| <b>FY 2019 Normalized Current Enacted</b>                                                                                                                                                                                                                                              |               | <b>105,997</b> |
| 6. Price Change                                                                                                                                                                                                                                                                        |               | 2,112          |
| 7. Functional Transfers                                                                                                                                                                                                                                                                |               |                |
| 8. Program Increases                                                                                                                                                                                                                                                                   |               | 6,464          |
| a. Annualization of New FY 2019 Program                                                                                                                                                                                                                                                |               |                |
| b. One-Time FY 2020 Increases                                                                                                                                                                                                                                                          |               |                |
| c. Program Growth in FY 2020                                                                                                                                                                                                                                                           |               |                |
| 1) RCWM Program - Programmatic                                                                                                                                                                                                                                                         | 2,970         |                |
| Increase is due to multiple contracts originally accounted for under the Support to Explosives or Munitions Emergencies Emergency Response, up the Final Decision have been consolidated under one contract and accounted for under Programmatic. (FY 2019 Baseline: \$9,705 thousand) |               |                |
| 2) RCWM Program - Maintenance of Equipment                                                                                                                                                                                                                                             | 2,951         |                |

**Budget Activity 1: Operations and Maintenance**

**CHEMICAL DEMILITARIZATION  
Operation and Maintenance, Defense-Wide  
Fiscal Year (FY) 2020 President's Budget**

**III. Financial Summary (\$ in thousands)**

| <b>C. <u>Reconciliation of Increases and Decreases</u></b>                                                                                                                                                                                                                             | <b><u>Amount</u></b> | <b><u>Totals</u></b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|
| Increase due to scheduled equipment purchases, equipment upgrades and additional logistics efforts required for RCWM mission needs. (FY 2019 Baseline: \$11,451 thousand)                                                                                                              |                      |                      |
| 3) CSEPP On-Post - Mission<br>Increase due to higher Army contract and other Government Agency support costs. (FY 2019 Baseline: \$19,213 thousand)                                                                                                                                    | 370                  |                      |
| 4) RCWM Program - Sustainment of Personnel<br>Increase due to staffing authorized vacant positions required for RCWM mission needs. (FY 2019 Baseline: \$15,065 thousand)                                                                                                              | 173                  |                      |
| 9. Program Decreases                                                                                                                                                                                                                                                                   |                      | -7,222               |
| a. Annualization of FY 2019 Program Decreases                                                                                                                                                                                                                                          |                      |                      |
| b. One-Time FY 2019 Increases                                                                                                                                                                                                                                                          |                      |                      |
| c. Program Decreases in FY 2020                                                                                                                                                                                                                                                        |                      |                      |
| 1) RCWM Program - Support to Explosives or Munitions Emergencies Emergency Response, up to the Final Decision<br>Decrease is due to RCWM consolidating multiple contract efforts under this support function to one contract under Programmatic. (FY 2019 Baseline: \$15,020 thousand) | -5,249               |                      |
| 2) CSEPP Off-Post - Mission<br>Decrease due to reduction in Kentucky communications, emergency operations center, and protective actions operating costs. (FY 2019 Baseline: \$31,135 thousand)                                                                                        | -1,747               |                      |
| 3) RCWM Program - Archive Research                                                                                                                                                                                                                                                     | -219                 |                      |

Budget Activity 1: Operations and Maintenance

CHEMICAL DEMILITARIZATION  
Operation and Maintenance, Defense-Wide  
Fiscal Year (FY) 2020 President's Budget

III. Financial Summary (\$ in thousands)

| <b>C. <u>Reconciliation of Increases and Decreases</u></b>                                                                         | <b><u>Amount</u></b> | <b><u>Totals</u></b> |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|
| Decrease due to revised estimating methodologies.<br>(FY 2019 Baseline: \$2,021 thousand)                                          |                      |                      |
| 4) CSEPP On-Post - Program Management<br>Reduction in CMA HQ's programmatic support costs.<br>(FY 2019 Baseline: \$2,387 thousand) | -7                   |                      |
| <b>FY 2020 Budget Request</b>                                                                                                      |                      | <b>107,351</b>       |

**Budget Activity 1: Operations and Maintenance**

**CHEMICAL DEMILITARIZATION**  
**Operation and Maintenance, Defense-Wide**  
**Fiscal Year (FY) 2020 Budget Estimates**

IV. Performance Criteria and Evaluation Summary:

Workload data not applicable.

**Budget Activity 1: Operations and Maintenance**

**CHEMICAL DEMILITARIZATION  
Operation and Maintenance, Defense-Wide  
Fiscal Year (FY) 2020 Budget Estimates**

**V. Personnel Summary**

Workload data not applicable.



Budget Activity 1: Operations and Maintenance

**CHEMICAL DEMILITARIZATION**  
**Operation and Maintenance, Defense-Wide**  
**Fiscal Year (FY) 2020 President's Budget**

VI. OP 32 Line Items as Applicable (Dollars in thousands):

| OP 32 Line                                   | FY 2018<br>Actuals | Change<br>FY 2018/FY 2019 |             | FY 2019<br>Enacted | Change<br>FY 2019/FY 2020 |             | FY 2020<br>Estimate |
|----------------------------------------------|--------------------|---------------------------|-------------|--------------------|---------------------------|-------------|---------------------|
|                                              |                    | Price                     | Program     |                    | Price                     | Program     |                     |
| 308 Travel of Persons                        | 205                | 4                         | 114         | 323                | 6                         | 59          | 388                 |
| <b>399 Total Travel</b>                      | <b>205</b>         | <b>4</b>                  | <b>114</b>  | <b>323</b>         | <b>6</b>                  | <b>59</b>   | <b>388</b>          |
| 601 Army Industrial Operations               | 194                | -2                        | 218         | 410                | 0                         | 15          | 425                 |
| <b>699 Total DWCF Purchases</b>              | <b>194</b>         | <b>-2</b>                 | <b>218</b>  | <b>410</b>         | <b>0</b>                  | <b>15</b>   | <b>425</b>          |
| 771 Commercial Transport                     | 0                  | 0                         | 6           | 6                  | 0                         | 0           | 6                   |
| <b>799 Total Transportation</b>              | <b>0</b>           | <b>0</b>                  | <b>6</b>    | <b>6</b>           | <b>0</b>                  | <b>0</b>    | <b>6</b>            |
| 912 Rental Payments to GSA (SLUC)            | 0                  | 0                         | 20          | 20                 | 0                         | -6          | 14                  |
| 913 Purchased Utilities (Non-Fund)           | 1                  | 0                         | -1          | 0                  | 0                         | 0           | 0                   |
| 914 Purchased Communications (Non-Fund)      | 43                 | 1                         | -39         | 5                  | 0                         | 0           | 5                   |
| 917 Postal Services (U.S.P.S)                | 1                  | 0                         | -1          | 0                  | 0                         | 0           | 0                   |
| 920 Supplies & Materials (Non-Fund)          | 70                 | 1                         | 118         | 189                | 4                         | 8           | 201                 |
| 922 Equipment Maintenance By Contract        | 442                | 8                         | 385         | 835                | 17                        | 68          | 920                 |
| 923 Facilities Sust, Rest, & Mod by Contract | 13,643             | 246                       | -13,889     | 0                  | 0                         | 0           | 0                   |
| 925 Equipment Purchases (Non-Fund)           | 1,021              | 18                        | -805        | 234                | 5                         | -21         | 218                 |
| 932 Mgt Prof Support Svcs                    | 21,183             | 381                       | -7,406      | 14,158             | 283                       | -695        | 13,746              |
| 934 Engineering & Tech Svcs                  | 5,742              | 103                       | 885         | 6,730              | 135                       | 995         | 7,860               |
| 957 Other Costs (Land and Structures)        | 722                | 13                        | 1,059       | 1,794              | 36                        | -1,096      | 734                 |
| 984 Equipment Contracts                      | 153                | 3                         | -156        | 0                  | 0                         | 0           | 0                   |
| 987 Other Intra-Govt Purch                   | 60,053             | 1,081                     | 10,144      | 71,278             | 1,426                     | -1,231      | 71,473              |
| 989 Other Services                           | 764                | 14                        | 9,237       | 10,015             | 200                       | 1,146       | 11,361              |
| <b>999 Total Other Purchases</b>             | <b>103,838</b>     | <b>1,869</b>              | <b>-449</b> | <b>105,258</b>     | <b>2,106</b>              | <b>-832</b> | <b>106,532</b>      |
| <b>Total</b>                                 | <b>104,237</b>     | <b>1,871</b>              | <b>-111</b> | <b>105,997</b>     | <b>2,112</b>              | <b>-758</b> | <b>107,351</b>      |

## Budget Activity 2: Research, Development, Test & Evaluation

| (In Thousands of Dollars) |           |
|---------------------------|-----------|
| FY 2020 Estimate          | \$875,930 |
| FY 2019 Enacted           | \$886,728 |
| FY 2018 Actual            | \$839,414 |

### Purpose and Scope

This budget activity provides resources for the development and testing of technologies for the destruction of chemical munitions that are alternatives to the baseline incineration program, and the design, acquisition and testing of prototype equipment for the assessment and destruction (treatment) of recovered chemical warfare material (RCWM).

### Justification of Funds Required

Funds are required for RDT&E required by the RCWM Program Support Functions in FY 2020, in support of the United States Chemical Demilitarization Program. The RCWM Program Support Function activities include: continuation of Explosive Destruction System (EDS) process improvements; improving the Portable Isotopic Neutron Spectroscopy (PINS) and Digital Radiography and Computed Tomography (DRCT) analyses to provide improved assessment capabilities; multi-agent gas analysis, and chemistry studies.

The Assembled Chemical Weapons Alternatives (ACWA) program activities at the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) will include the following efforts. PCAPP Main Plant: continuation of chemical-agent operation; and PCAPP EDT: completion of facilitization and systemization of PCAPP SDCs, beginning of PCAPP SDC chemical-agent operations and continuation of energetics destruction at Anniston SDC. The ACWA program activities at the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) will include the following efforts. BCGAPP Main Plant: completion of systemization and start of chemical-agent operations, and BGCAPP EDT: completion of chemical-agent campaign.

**Budget Activity 2: Research, Development, Test & Evaluation**

Five million (\$5M) of Funded Reimbursable Authority is required for evaluation and assessment of chemical warfare material discovered as a result of requests by other government agencies and foreign countries for the Recovered Chemical Warfare Material Program.

| <b>Funded Financial Summary</b>                       |                           |                            |                             |
|-------------------------------------------------------|---------------------------|----------------------------|-----------------------------|
| <b>(In Thousands of Dollars)</b>                      |                           |                            |                             |
|                                                       | <b>FY 2018<br/>Actual</b> | <b>FY 2019<br/>Enacted</b> | <b>FY 2020<br/>Estimate</b> |
| <b>Chemical Materials Activity (CMA)</b>              |                           |                            |                             |
| RCWM Program Mobile Destruction Capabilities          | 6,029                     | 0                          | 0                           |
| RCWM Program Miscellaneous Studies and Projects       | 1,485                     | 0                          | 0                           |
| RCWM Program Support Function RDT&E Projects          | 0                         | 6,445                      | 6,500                       |
| <b>Subtotal CMA</b>                                   | <b>7,514</b>              | <b>6,445</b>               | <b>6,500</b>                |
|                                                       |                           |                            |                             |
| <b>Assembled Chemical Weapons Alternative Program</b> |                           |                            |                             |
| Pueblo, CO                                            | 421,700                   | 406,391                    | 417,700                     |
| Blue Grass, KY                                        | 410,200                   | 473,892                    | 451,730                     |
| <b>Subtotal ACWA</b>                                  | <b>831,900</b>            | <b>880,283</b>             | <b>869,430</b>              |
|                                                       |                           |                            |                             |
| <b>Total Funded</b>                                   | <b>839,414</b>            | <b>886,728</b>             | <b>875,930</b>              |
|                                                       |                           |                            |                             |

## **Budget Activity 2: Research, Development, Test & Evaluation**

### **Justification by Program**

#### **A. DESCRIPTION OF ELEMENT:**

##### **Recovered Chemical Warfare Material (RCWM) Program Support Function:**

This budget activity will fund the RDT&E projects for the development of improved technologies in support of the United States Chemical Demilitarization Program, for Explosive Destruction System (EDS) process improvements, improving the Portable Isotopic Neutron Spectroscopy (PINS) and Digital Radiography and Computed Tomography (DRCT) analyses to provide improved assessment capabilities, multi-agent gas analysis, and chemistry studies.

##### **Assembled Chemical Weapons Alternatives (ACWA) Program:**

This budget activity will fund costs related to design, construction, systemization, operations, and closure of two full-scale pilot plants, PCAPP and BGCAPP, as well as the alternative destruction technologies selected for both sites. The budget activity also provides for the preparation of the necessary environmental documentation to support construction and operation of the two pilot plants, EDS, SDC, as well as public outreach and other program management activities. Costs for design and construction of pilot plants and EDT are included in the Chemical Demilitarization Construction, Defense account.

#### **B. PROGRAM ACCOMPLISHMENTS AND PLANS:**

##### **Recovered Chemical Warfare Material (RCWM) Program Support Functions (See Exhibit R-2a, Chemical Materials Agency):**

Program-Wide: FY 2020 budget request will fund continued EDS process improvements, multi-agent gas analysis, PINS and DRCT analyses, and chemistry studies.

## **Budget Activity 2: Research, Development, Test & Evaluation**

### **Assembled Chemical Weapons Alternatives Program (See Exhibit R-2, ACWA):**

PCAPP: FY 2020 budget will fund the following efforts. PCAPP chemical-agent operations in the main destruction facility and PCAPP SDC. Additionally, a portion of the FY 2020 budget will fund program office salaries, host installation support, contract management, and project support services by support contractors and other government agencies.

BGCAPP: FY 2020 budget will fund the following efforts. BGCAPP chemical-agent operations in the main destruction facility and BGCAPP SDC. Additionally, a portion of the FY 2020 budget will fund program office salaries, host installation support, contract management, and project support services by support contractors and other government agencies.

### **C. WORK PERFORMED BY:**

**Recovered Chemical Warfare Material (RCWM) Program Support Functions:** The Recovered Chemical Warfare Material Directorate is located at Aberdeen Proving Ground, Maryland, and is the government's technical organization involved with the assessment of munitions and certain material of interest and the destruction of RCWM. Primary DoD activities that support RCMD in the provision of the RCWM Program support functions are: Army Research, Development and Engineering Command (RDECOM), Edgewood Chemical Biological Center (ECBC), Edgewood, Maryland; and the U.S. Army Forces Command, 20th Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) Command, CBRNE Analytical and Remediation Activity (CARA), Edgewood, Maryland. Other government agencies and contractors that support RCMD include: General Physics (GP), Columbia, Maryland; Sandia National Laboratory (SNL), Albuquerque, New Mexico; Idaho National Laboratory (INL), Boise, Idaho; Booz Allen Hamilton, McLean, Virginia; and APTIM Federal Services, Alexandria, Virginia.

## **Budget Activity 2: Research, Development, Test & Evaluation**

### **Assembled Chemical Weapons Alternatives Program:**

The Program Executive Office for the Assembled Chemical Weapons Alternatives is located at Aberdeen Proving Ground, Maryland, and is the government's management organization involved with the implementation of alternatives to the baseline incineration process for the demilitarization of chemical munitions. A contract to design, build, test, operate, and close a pilot plant based on neutralization followed by bio-treatment at Pueblo Chemical Depot, Colorado was awarded to Bechtel National Incorporated in 2002. A contract to design, build, test, operate, and close a pilot plant based on neutralization followed by supercritical water oxidation at Blue Grass Army Depot, Kentucky was awarded to the Bechtel Parsons Joint Venture in 2003.

### **D. RELATED ACTIVITIES:**

No unnecessary duplication of effort will occur within the Department of Defense (DoD) or the Army. Large-scale destruction of toxic chemical agents and munitions is solely the responsibility of DoD. The U.S. Army is the Executive Agent for the Chemical Demilitarization Program, except for the Pueblo Chemical Depot, Colorado, and Blue Grass Army Depot, Kentucky, projects that report to the Under Secretary of Defense (Acquisition & Sustainment).

### **E. OTHER APPROPRIATION FUNDS:**

**Recovered Chemical Warfare Material (RCWM) Program Support Functions:** Operations and Maintenance FY 2020 funds in the Chemical Agents and Munitions Destruction, Defense appropriation will be used in the support of the RCWM program for sustainment of personnel, maintenance of equipment and to respond, package, and assess munitions and certain materials of interest with an unknown liquid fill as part of support of explosives and munitions emergencies and CWM response actions.

Budget Activity 2: Research, Development, Test & Evaluation

**UNCLASSIFIED**

Chemical Demilitarization Program • Budget Estimate Submission FY 2020 • RDT&E Program  
Exhibit R-1

(Listing by Budget Activity, then Program Element Number)

BA# 02: RDT&E

| Line#                   | BA# | PE#      | PE Title                                       | Cost (\$ in Millions) |                |                |                |             |                |
|-------------------------|-----|----------|------------------------------------------------|-----------------------|----------------|----------------|----------------|-------------|----------------|
|                         |     |          |                                                | Prior Years           | FY 2018        | FY 2019        | FY 2020 Base   | FY 2020 OCO | FY 2020 Total  |
| 1                       | 02  | 0708081D | Chemical Materials Activity                    | 1,405.895             | 7.514          | 6.445          | 6.500          | -           | 6.500          |
| 2                       | 02  | 0708083D | ACWA - Assembled Chemical Weapons Alternatives | -                     | 831.900        | 880.283        | 869.430        | -           | 869.430        |
| <b>Total: RDT&amp;E</b> |     |          |                                                | <b>1,405.895</b>      | <b>839.414</b> | <b>886.728</b> | <b>875.930</b> | <b>-</b>    | <b>875.930</b> |

**UNCLASSIFIED**

Exhibit R-1  
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Budget Activity 2: Research, Development, Test & Evaluation

UNCLASSIFIED

| Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Chemical Demilitarization Program               |                 |         |         |              |                                                                                |               |         |         |         | Date: February 2019 |                  |            |
|-------------------------------------------------------------------------------------------------------|-----------------|---------|---------|--------------|--------------------------------------------------------------------------------|---------------|---------|---------|---------|---------------------|------------------|------------|
| Appropriation/Budget Activity<br>0390D: Chem Agents & Munitions Destruction / BA 2: RDT&E             |                 |         |         |              | R-1 Program Element (Number/Name)<br>PE 0708081D / Chemical Materials Activity |               |         |         |         |                     |                  |            |
| COST (\$ in Millions)                                                                                 | Prior Years (+) | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO                                                                    | FY 2020 Total | FY 2021 | FY 2022 | FY 2023 | FY 2024             | Cost To Complete | Total Cost |
| Total Program Element                                                                                 | 1,405.895       | 7.514   | 6.445   | 6.500        | -                                                                              | 6.500         | 6.500   | 6.500   | 6.500   | 6.500               | Continuing       | Continuing |
| 0708081D - 1: Recovered Chemical Warfare Material (RCWM) Program - Mobile Destruction Capabilities    | 413.091         | 5.852   | 0.000   | 0.000        | -                                                                              | 0.000         | 0.000   | 0.000   | 0.000   | 0.000               | 0.000            | 418.943    |
| 0708081D - 2: Recovered Chemical Warfare Material (RCWM) Program - Miscellaneous Studies and Projects | 93.967          | 1.662   | 0.000   | 0.000        | -                                                                              | 0.000         | 0.000   | 0.000   | 0.000   | 0.000               | 0.000            | 95.629     |
| 0708081D - 3: Recovered Chemical Warfare Material (RCWM) Program - RDT&E Projects                     | 0.000           | 0.000   | 6.445   | 6.500        | -                                                                              | 6.500         | 6.500   | 6.500   | 6.500   | 6.500               | Continuing       | Continuing |

(+) The sum of all Prior Years is \$898.837 million less than the represented total due to several projects ending

**Note**  
Total Program Element (PE) Prior Years Cost includes RDT&E costs for the following projects whose RDT&E requirements have been completed: Chemical Stockpile Elimination Program (887.834) completed in FY 2005 and Chemical Stockpile Emergency Preparedness Program (1.429) completed in FY 2002.

**A. Mission Description and Budget Item Justification**  
The Chemical Demilitarization Program - U.S. Army Chemical Materials Activity (CMA) was a Category 1D Major Defense Acquisition Program (MDAP); however, the CMA MDAP is currently inactive as a result of completing destruction of the seven chemical weapons stockpiles. The Army has oversight and management with the Director of the CMA as the delegated authority for execution of the Chemical Stockpile Emergency Preparedness Project (CSEPP) and for managing the Recovered Chemical Warfare Material (RCWM) Program Support Functions.  
  
The RCWM Program Support Functions, in support of the U.S. Chemical Demilitarization Program, provides centralized technical expertise and project management of chemical material disposal in a safe, environmentally sound, and cost effective manner.  
  
The CSEPP is a complementary effort to the Assembled Chemical Weapons Alternatives Program to enhance protection of the civilian population during storage and destruction of the U.S.' chemical weapons stockpile.

PE 0708081D: Chemical Materials Activity  
Chemical Demilitarization Program

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Budget Activity 2: Research, Development, Test & Evaluation

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Chemical Demilitarization Program |                |                                           |                     | Date: February 2019 |                      |
|-----------------------------------------------------------------------------------------|----------------|-------------------------------------------|---------------------|---------------------|----------------------|
| Appropriation/Budget Activity                                                           |                | R-1 Program Element (Number/Name)         |                     |                     |                      |
| 0390D: Chem Agents & Munitions Destruction / BA 2: RDT&E                                |                | PE 0708081D / Chemical Materials Activity |                     |                     |                      |
| <b>B. Program Change Summary (\$ in Millions)</b>                                       | <b>FY 2018</b> | <b>FY 2019</b>                            | <b>FY 2020 Base</b> | <b>FY 2020 OCO</b>  | <b>FY 2020 Total</b> |
| Previous President's Budget                                                             | 7.514          | 6.445                                     | 6.500               | -                   | 6.500                |
| Current President's Budget                                                              | 7.514          | 6.445                                     | 6.500               | -                   | 6.500                |
| Total Adjustments                                                                       | 0.000          | 0.000                                     | 0.000               | -                   | 0.000                |
| • Congressional General Reductions                                                      | -              | -                                         |                     |                     |                      |
| • Congressional Directed Reductions                                                     | -              | -                                         |                     |                     |                      |
| • Congressional Rescissions                                                             | -              | -                                         |                     |                     |                      |
| • Congressional Adds                                                                    | -              | -                                         |                     |                     |                      |
| • Congressional Directed Transfers                                                      | -              | -                                         |                     |                     |                      |
| • Reprogrammings                                                                        | -              | -                                         |                     |                     |                      |
| • SBIR/STTR Transfer                                                                    | -              | -                                         |                     |                     |                      |

Budget Activity 2: Research, Development, Test & Evaluation

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| Exhibit R-2A, RDT&E Project Justification: PB 2020 Chemical Demilitarization Program                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |         |              |                                                                                |               |         |         |                                                                                                                              | Date: February 2019 |                  |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|--------------------------------------------------------------------------------|---------------|---------|---------|------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|----------------|
| Appropriation/Budget Activity<br>0390D / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |         |         |              | R-1 Program Element (Number/Name)<br>PE 0708081D / Chemical Materials Activity |               |         |         | Project (Number/Name)<br>0708081D - 1 / Recovered Chemical Warfare Material (RCWM) Program - Mobile Destruction Capabilities |                     |                  |                |
| COST (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Prior Years | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO                                                                    | FY 2020 Total | FY 2021 | FY 2022 | FY 2023                                                                                                                      | FY 2024             | Cost To Complete | Total Cost     |
| 0708081D - 1: Recovered Chemical Warfare Material (RCWM) Program - Mobile Destruction Capabilities                                                                                                                                                                                                                                                                                                                                                                                                                        | 413.091     | 5.852   | 0.000   | 0.000        | -                                                                              | 0.000         | 0.000   | 0.000   | 0.000                                                                                                                        | 0.000               | 0.000            | 418.943        |
| <b>A. Mission Description and Budget Item Justification</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |         |         |              |                                                                                |               |         |         |                                                                                                                              |                     |                  |                |
| This project includes costs for Explosive Destruction System (EDS) process improvements; testing efforts for new system(s) capable of high speed/high RCWM treatment and treating chemical agent contaminated soil and debris; Portable Isotopic Neutron Spectroscopy (PINS) and Digital Radiography and Computed Tomography (DRCT) analyses to provide improved assessment capabilities, Transportable Detonation Chamber (TDC) analysis, redesign and testing, and Universal Munition Storage Container (UMSC) testing. |             |         |         |              |                                                                                |               |         |         |                                                                                                                              |                     |                  |                |
| See Program Element 0708081D - 3 for FY 2019 and 2020 funding requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |         |         |              |                                                                                |               |         |         |                                                                                                                              |                     |                  |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |         |         |              |                                                                                |               |         |         |                                                                                                                              | <b>FY 2018</b>      | <b>FY 2019</b>   | <b>FY 2020</b> |
| <b>Title:</b> Recovered Chemical Warfare Material Program - Mobile Destruction Capabilities                                                                                                                                                                                                                                                                                                                                                                                                                               |             |         |         |              |                                                                                |               |         |         |                                                                                                                              | 5.852               | 0.000            | 0.000          |
| <b>Description:</b> FY18 Accomplishments: Continued EDS process improvements, multi-agent gas analysis, PINS and DRCT analyses, shape charge studies, UMSC testing, and TDC redesign. Completed high speed/high capacity system testing to treat RCWM and testing of technologies to treat chemical agent contaminated soil and debris.                                                                                                                                                                                   |             |         |         |              |                                                                                |               |         |         |                                                                                                                              |                     |                  |                |
| <b>FY 2019 Plans:</b> See Program Element 0708081D - 3 for FY 2019 funding plans.                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         |         |              |                                                                                |               |         |         |                                                                                                                              |                     |                  |                |
| <b>FY 2020 Plans:</b> See Program Element 0708081D - 3 for FY 2020 funding plans.                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         |         |              |                                                                                |               |         |         |                                                                                                                              |                     |                  |                |
| <b>FY 2019 to FY 2020 Increase/Decrease Statement:</b> See Program Element 0708081D - 3.                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |         |         |              |                                                                                |               |         |         |                                                                                                                              |                     |                  |                |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         |         |              |                                                                                |               |         |         |                                                                                                                              | 5.852               | 0.000            | 0.000          |

Budget Activity 2: Research, Development, Test & Evaluation

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| Exhibit R-2A, RDT&E Project Justification: PB 2020 Chemical Demilitarization Program                                                                                                                                                                                                                                                             |                |                |                                                                                |                              |                                |                |                                                                                                                              |                |                | Date: February 2019               |                   |
| Appropriation/Budget Activity<br>0390D / 2                                                                                                                                                                                                                                                                                                       |                |                | R-1 Program Element (Number/Name)<br>PE 0708081D / Chemical Materials Activity |                              |                                |                | Project (Number/Name)<br>0708081D - 1 / Recovered Chemical Warfare Material (RCWM) Program - Mobile Destruction Capabilities |                |                |                                   |                   |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                                                                                                                         |                |                |                                                                                |                              |                                |                |                                                                                                                              |                |                |                                   |                   |
| <u>Line Item</u>                                                                                                                                                                                                                                                                                                                                 | <u>FY 2018</u> | <u>FY 2019</u> | <u>FY 2020</u><br><u>Base</u>                                                  | <u>FY 2020</u><br><u>OCO</u> | <u>FY 2020</u><br><u>Total</u> | <u>FY 2021</u> | <u>FY 2022</u>                                                                                                               | <u>FY 2023</u> | <u>FY 2024</u> | <u>Cost To</u><br><u>Complete</u> | <u>Total Cost</u> |
| • 0390 O&M/0708081D:<br>CAMD,D O&M                                                                                                                                                                                                                                                                                                               | 43.869         | 0.000          | 0.000                                                                          | -                            | 0.000                          | 0.000          | 0.000                                                                                                                        | 0.000          | 0.000          | 0.000                             | 87.270            |
| <b>Remarks</b>                                                                                                                                                                                                                                                                                                                                   |                |                |                                                                                |                              |                                |                |                                                                                                                              |                |                |                                   |                   |
| <b>D. Acquisition Strategy</b>                                                                                                                                                                                                                                                                                                                   |                |                |                                                                                |                              |                                |                |                                                                                                                              |                |                |                                   |                   |
| N/A                                                                                                                                                                                                                                                                                                                                              |                |                |                                                                                |                              |                                |                |                                                                                                                              |                |                |                                   |                   |
| <b>E. Performance Metrics</b>                                                                                                                                                                                                                                                                                                                    |                |                |                                                                                |                              |                                |                |                                                                                                                              |                |                |                                   |                   |
| The DOD uses the percent (cumulative from CWC entry into force) of treaty-declared category 1 chemical weapons destroyed as a performance measure for the Chemical Demilitarization (Chem Demil) Program. The program has developed annual destruction goals to guide its progress toward destroying the entire U.S. chemical weapons stockpile. |                |                |                                                                                |                              |                                |                |                                                                                                                              |                |                |                                   |                   |

Budget Activity 2: Research, Development, Test & Evaluation

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| Exhibit R-2A, RDT&E Project Justification: PB 2020 Chemical Demilitarization Program                                                                                                                                                    |                |                |                     |                    |                                                                                |                |                |                |                                                                                                                                 | Date: February 2019     |                   |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|---------------------|--------------------|--------------------------------------------------------------------------------|----------------|----------------|----------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------|----------------|
| Appropriation/Budget Activity<br>0390D / 2                                                                                                                                                                                              |                |                |                     |                    | R-1 Program Element (Number/Name)<br>PE 0708081D / Chemical Materials Activity |                |                |                | Project (Number/Name)<br>0708081D - 2 / Recovered Chemical Warfare Material (RCWM) Program - Miscellaneous Studies and Projects |                         |                   |                |
| COST (\$ in Millions)                                                                                                                                                                                                                   | Prior Years    | FY 2018        | FY 2019             | FY 2020 Base       | FY 2020 OCO                                                                    | FY 2020 Total  | FY 2021        | FY 2022        | FY 2023                                                                                                                         | FY 2024                 | Cost To Complete  | Total Cost     |
| 0708081D - 2: Recovered Chemical Warfare Material (RCWM) Program - Miscellaneous Studies and Projects                                                                                                                                   | 93.967         | 1.662          | 0.000               | 0.000              | -                                                                              | 0.000          | 0.000          | 0.000          | 0.000                                                                                                                           | 0.000                   | 0.000             | 95.629         |
| <b>A. Mission Description and Budget Item Justification</b>                                                                                                                                                                             |                |                |                     |                    |                                                                                |                |                |                |                                                                                                                                 |                         |                   |                |
| This project includes costs for researching alternative treatment technologies, secondary waste treatment partnering with industry; research efforts on multi-agent chemical monitoring, decontamination methods and treatment studies. |                |                |                     |                    |                                                                                |                |                |                |                                                                                                                                 |                         |                   |                |
| See Program Element 0708081D - 3 for FY 2019 and 2020 funding requirements.                                                                                                                                                             |                |                |                     |                    |                                                                                |                |                |                |                                                                                                                                 |                         |                   |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                             |                |                |                     |                    |                                                                                |                |                |                |                                                                                                                                 | <b>FY 2018</b>          | <b>FY 2019</b>    | <b>FY 2020</b> |
| <b>Title:</b> Recovered Chemical Warfare Material (RCWM) Program - Miscellaneous Studies and Projects                                                                                                                                   |                |                |                     |                    |                                                                                |                |                |                |                                                                                                                                 | 1.662                   | 0.000             | 0.000          |
| <b>Description:</b> FY 2018 Accomplishments:<br>Awarded contract to test alternative non-intrusive assessment technology and continued chemistry studies.                                                                               |                |                |                     |                    |                                                                                |                |                |                |                                                                                                                                 |                         |                   |                |
| <b>FY 2019 Plans:</b><br>See Program Element 0708081D - 3 for FY 2019 funding plans.                                                                                                                                                    |                |                |                     |                    |                                                                                |                |                |                |                                                                                                                                 |                         |                   |                |
| <b>FY 2020 Plans:</b><br>See Program Element 0708081D - 3 for FY 2020 funding plans.                                                                                                                                                    |                |                |                     |                    |                                                                                |                |                |                |                                                                                                                                 |                         |                   |                |
| <b>FY 2019 to FY 2020 Increase/Decrease Statement:</b><br>See Program Element 0708081D - 3.                                                                                                                                             |                |                |                     |                    |                                                                                |                |                |                |                                                                                                                                 |                         |                   |                |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                       |                |                |                     |                    |                                                                                |                |                |                |                                                                                                                                 | 1.662                   | 0.000             | 0.000          |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                |                |                |                     |                    |                                                                                |                |                |                |                                                                                                                                 |                         |                   |                |
| <b>Line Item</b>                                                                                                                                                                                                                        | <b>FY 2018</b> | <b>FY 2019</b> | <b>FY 2020 Base</b> | <b>FY 2020 OCO</b> | <b>FY 2020 Total</b>                                                           | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b> | <b>FY 2024</b>                                                                                                                  | <b>Cost To Complete</b> | <b>Total Cost</b> |                |
| • 0390 O&M/0708081D:<br>CAMD,D O&M                                                                                                                                                                                                      | 10.967         | 0.000          | 0.000               | -                  | 0.000                                                                          | 0.000          | 0.000          | 0.000          | 0.000                                                                                                                           | 0.000                   | 35.518            |                |

PE 0708081D: Chemical Materials Activity  
Chemical Demilitarization Program

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Budget Activity 2: Research, Development, Test & Evaluation

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| Exhibit R-2A, RDT&E Project Justification: PB 2020 Chemical Demilitarization Program                                                                                                                                                                                                                                                             |                |                |                               |                                                                                |                                |                |                |                                                                                                                                 |                | Date: February 2019               |                   |
| Appropriation/Budget Activity<br>0390D / 2                                                                                                                                                                                                                                                                                                       |                |                |                               | R-1 Program Element (Number/Name)<br>PE 0708081D / Chemical Materials Activity |                                |                |                | Project (Number/Name)<br>0708081D - 2 / Recovered Chemical Warfare Material (RCWM) Program - Miscellaneous Studies and Projects |                |                                   |                   |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                                                                                                                         |                |                |                               |                                                                                |                                |                |                |                                                                                                                                 |                |                                   |                   |
| <u>Line Item</u>                                                                                                                                                                                                                                                                                                                                 | <u>FY 2018</u> | <u>FY 2019</u> | <u>FY 2020</u><br><u>Base</u> | <u>FY 2020</u><br><u>OCO</u>                                                   | <u>FY 2020</u><br><u>Total</u> | <u>FY 2021</u> | <u>FY 2022</u> | <u>FY 2023</u>                                                                                                                  | <u>FY 2024</u> | <u>Cost To</u><br><u>Complete</u> | <u>Total Cost</u> |
| <b>Remarks</b>                                                                                                                                                                                                                                                                                                                                   |                |                |                               |                                                                                |                                |                |                |                                                                                                                                 |                |                                   |                   |
| <b>D. Acquisition Strategy</b>                                                                                                                                                                                                                                                                                                                   |                |                |                               |                                                                                |                                |                |                |                                                                                                                                 |                |                                   |                   |
| N/A                                                                                                                                                                                                                                                                                                                                              |                |                |                               |                                                                                |                                |                |                |                                                                                                                                 |                |                                   |                   |
| <b>E. Performance Metrics</b>                                                                                                                                                                                                                                                                                                                    |                |                |                               |                                                                                |                                |                |                |                                                                                                                                 |                |                                   |                   |
| The DOD uses the percent (cumulative from CWC entry into force) of treaty-declared category 1 chemical weapons destroyed as a performance measure for the Chemical Demilitarization (Chem Demil) Program. The program has developed annual destruction goals to guide its progress toward destroying the entire U.S. chemical weapons stockpile. |                |                |                               |                                                                                |                                |                |                |                                                                                                                                 |                |                                   |                   |

Budget Activity 2: Research, Development, Test & Evaluation

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| Exhibit R-2A, RDT&E Project Justification: PB 2020 Chemical Demilitarization Program                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                |                     |                    |                                                                                |                |                |                |                                                                                                             | Date: March 2019        |                   |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|---------------------|--------------------|--------------------------------------------------------------------------------|----------------|----------------|----------------|-------------------------------------------------------------------------------------------------------------|-------------------------|-------------------|----------------|
| Appropriation/Budget Activity<br>0390D / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                |                     |                    | R-1 Program Element (Number/Name)<br>PE 0708081D / Chemical Materials Activity |                |                |                | Project (Number/Name)<br>0708081D - 3 / Recovered Chemical Warfare Material (RCWM) Program - RDT&E Projects |                         |                   |                |
| COST (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Prior Years    | FY 2018        | FY 2019             | FY 2020 Base       | FY 2020 OCO                                                                    | FY 2020 Total  | FY 2021        | FY 2022        | FY 2023                                                                                                     | FY 2024                 | Cost To Complete  | Total Cost     |
| 0708081D - 3: Recovered Chemical Warfare Material (RCWM) Program - RDT&E Projects                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.000          | 0.000          | 6.445               | 6.500              | -                                                                              | 6.500          | 6.500          | 6.500          | 6.500                                                                                                       | 6.500                   | Continuing        | Continuing     |
| <b>A. Mission Description and Budget Item Justification</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                |                     |                    |                                                                                |                |                |                |                                                                                                             |                         |                   |                |
| This project includes costs for Explosive Destruction System (EDS) process improvements; testing efforts for new system(s) capable of high speed/high RCWM treatment and treating chemical agent contaminated soil and debris; Portable Isotopic Neutron Spectroscopy (PINS) and Digital Radiography and Computed Tomography (DRCT) analyses to provide improved assessment capabilities, testing of alternative non-intrusive assessment technology, Transportable Detonation Chamber (TDC) analysis, re-design and testing, multi-agent gas analysis, and chemistry studies. |                |                |                     |                    |                                                                                |                |                |                |                                                                                                             |                         |                   |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                |                     |                    |                                                                                |                |                |                |                                                                                                             | <b>FY 2018</b>          | <b>FY 2019</b>    | <b>FY 2020</b> |
| <b>Title:</b> Recovered Chemical Warfare Material (RCWM) Program – RDT&E Projects                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                |                     |                    |                                                                                |                |                |                |                                                                                                             | 0.000                   | 6.445             | 6.500          |
| <b>Description:</b> FY 2018 Accomplishments: See Program Elements 0708081D - 1 and 0708081D - 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                |                     |                    |                                                                                |                |                |                |                                                                                                             |                         |                   |                |
| <b>FY 2019 Plans:</b><br>Continue EDS process improvements, multi-agent gas analysis, PINS and DRCT analyses, chemistry studies and complete testing of the alternative non-intrusive assessment technology.                                                                                                                                                                                                                                                                                                                                                                   |                |                |                     |                    |                                                                                |                |                |                |                                                                                                             |                         |                   |                |
| <b>FY 2020 Plans:</b><br>Continue EDS process improvements, multi-agent gas analysis, PINS and DRCT analyses, chemistry studies, and complete testing of the TDC.                                                                                                                                                                                                                                                                                                                                                                                                              |                |                |                     |                    |                                                                                |                |                |                |                                                                                                             |                         |                   |                |
| <b>FY 2019 to FY 2020 Increase/Decrease Statement:</b><br>Minor increase due to price growth.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                |                     |                    |                                                                                |                |                |                |                                                                                                             |                         |                   |                |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                |                     |                    |                                                                                |                |                |                |                                                                                                             | 0.000                   | 6.445             | 6.500          |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                     |                    |                                                                                |                |                |                |                                                                                                             |                         |                   |                |
| <u>Line Item</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <u>FY 2018</u> | <u>FY 2019</u> | <u>FY 2020 Base</u> | <u>FY 2020 OCO</u> | <u>FY 2020 Total</u>                                                           | <u>FY 2021</u> | <u>FY 2022</u> | <u>FY 2023</u> | <u>FY 2024</u>                                                                                              | <u>Cost To Complete</u> | <u>Total Cost</u> |                |
| • 0390 O&M/0708081D::<br>CAMD,D O&M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.000          | 53.262         | 54.949              | -                  | 54.949                                                                         | 55.000         | 55.000         | 55.000         | 55.000                                                                                                      | Continuing              | Continuing        |                |

PE 0708081D: Chemical Materials Activity  
Chemical Demilitarization Program

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Budget Activity 2: Research, Development, Test & Evaluation

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| Exhibit R-2A, RDT&E Project Justification: PB 2020 Chemical Demilitarization Program                                                                                                                                                                                                                                                             |                |                |                               |                                                                                |                                |                |                |                                                                                                             |                | Date: February 2019               |                   |
| Appropriation/Budget Activity<br>0390D / 2                                                                                                                                                                                                                                                                                                       |                |                |                               | R-1 Program Element (Number/Name)<br>PE 0708081D / Chemical Materials Activity |                                |                |                | Project (Number/Name)<br>0708081D - 3 / Recovered Chemical Warfare Material (RCWM) Program - RDT&E Projects |                |                                   |                   |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                                                                                                                         |                |                |                               |                                                                                |                                |                |                |                                                                                                             |                |                                   |                   |
| <u>Line Item</u>                                                                                                                                                                                                                                                                                                                                 | <u>FY 2018</u> | <u>FY 2019</u> | <u>FY 2020</u><br><u>Base</u> | <u>FY 2020</u><br><u>OCO</u>                                                   | <u>FY 2020</u><br><u>Total</u> | <u>FY 2021</u> | <u>FY 2022</u> | <u>FY 2023</u>                                                                                              | <u>FY 2024</u> | <u>Cost To</u><br><u>Complete</u> | <u>Total Cost</u> |
| • 0390 PROC/0708081D::<br>CAMD,D PROC                                                                                                                                                                                                                                                                                                            | 0.000          | 0.000          | 0.000                         | -                                                                              | 0.000                          | 0.000          | 0.000          | 0.000                                                                                                       | 0.000          | Continuing                        | Continuing        |
| <b>Remarks</b>                                                                                                                                                                                                                                                                                                                                   |                |                |                               |                                                                                |                                |                |                |                                                                                                             |                |                                   |                   |
| <b>D. Acquisition Strategy</b>                                                                                                                                                                                                                                                                                                                   |                |                |                               |                                                                                |                                |                |                |                                                                                                             |                |                                   |                   |
| N/A                                                                                                                                                                                                                                                                                                                                              |                |                |                               |                                                                                |                                |                |                |                                                                                                             |                |                                   |                   |
| <b>E. Performance Metrics</b>                                                                                                                                                                                                                                                                                                                    |                |                |                               |                                                                                |                                |                |                |                                                                                                             |                |                                   |                   |
| The DOD uses the percent (cumulative from CWC entry into force) of treaty-declared category 1 chemical weapons destroyed as a performance measure for the Chemical Demilitarization (Chem Demil) Program. The program has developed annual destruction goals to guide its progress toward destroying the entire U.S. chemical weapons stockpile. |                |                |                               |                                                                                |                                |                |                |                                                                                                             |                |                                   |                   |

Budget Activity 2: Research, Development, Test & Evaluation

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Chemical Demilitarization Program   |             |         |         |              |                                                                                                  |               |         |         |         |         | Date: February 2019 |            |
|-------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|--------------------------------------------------------------------------------------------------|---------------|---------|---------|---------|---------|---------------------|------------|
| Appropriation/Budget Activity<br>0390D: Chem Agents & Munitions Destruction / BA 2: RDT&E |             |         |         |              | R-1 Program Element (Number/Name)<br>PE 0708083D / ACWA- Assembled Chemical Weapons Alternatives |               |         |         |         |         |                     |            |
| COST (\$ in Millions)                                                                     | Prior Years | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO                                                                                      | FY 2020 Total | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Cost To Complete    | Total Cost |
| Total Program Element                                                                     | -           | 831.900 | 880.283 | 869.430      | -                                                                                                | 869.430       | 781.072 | 694.873 | 703.520 | 725.462 | Continuing          | Continuing |
| 0:                                                                                        | -           | 831.900 | 880.283 | 869.430      | -                                                                                                | 869.430       | 781.072 | 694.873 | 703.520 | 725.462 | Continuing          | Continuing |

**Note**

Project articles are U.S. tons of agent destroyed. Total ACWA Program is 3,136 tons.

**A. Mission Description and Budget Item Justification**

The Assembled Chemical Weapons Alternatives (ACWA) Program is a Category 1D Major Defense Acquisition Program responsible for destroying that portion of the U.S. inventory of lethal chemical agents and munitions stored at the Pueblo Chemical Depot in Colorado and the Blue Grass Army Depot in Kentucky. The ACWA Program is part of the Chemical Demilitarization Program, which is a congressionally-mandated program. The Chemical Demilitarization Program supports the international initiatives to rid the world of chemical weapons, as enunciated in the Chemical Weapons Convention (CWC). Consistent with Public Law 104-208 (the Omnibus Consolidated Appropriation Act for FY 1997), the Office of the Secretary of Defense has direct oversight of the ACWA Program. In 2002, Public Law 107-248 assigned the Program Manager (PM) ACWA the responsibility for the destruction of the chemical weapons stockpiles at the Pueblo Chemical Depot in Colorado and the Blue Grass Army Depot in Kentucky. In June 2011, DoD certified a restructured ACWA program pursuant to section 2433a of title 10, United States Code. In March 2012, the ACWA program received Milestone B approval and an approved Acquisition Program Baseline that reflects revised cost and schedule estimates. The restructured ACWA program and the Program Executive Office (PEO) estimates underlying the restructured program are the basis for the program milestones and funding requirements reflected in this document. In October 2012, PM ACWA was redesignated to a PEO.

Funds are required for the ACWA Program in FY 2020 to support the activities at the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) in Colorado and the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) in Kentucky. The activities at PCAPP will include the following efforts. PCAPP Main Plant: continuation of chemical-agent operations, and PCAPP EDT: Completion of facilitization and systemization of PCAPP SDCs, beginning of PCAPP SDC chemical-agent operations and continuation of energetics destruction at Anniston SDC. The ACWA program activities at the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) will include the following efforts. BCGAPP Main Plant: completion of systemization and start of chemical-agent operations, and BGCAPP EDT: completion of chemical-agent campaign.



Budget Activity 2: Research, Development, Test & Evaluation

UNCLASSIFIED

| Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Chemical Demilitarization Program                                                                                                                                                                                                                                                                                         |  |                                                             |         |              | Date: February 2019 |               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------|---------|--------------|---------------------|---------------|
| Appropriation/Budget Activity                                                                                                                                                                                                                                                                                                                                                   |  | R-1 Program Element (Number/Name)                           |         |              |                     |               |
| 0390D: Chem Agents & Munitions Destruction I BA 2: RDT&E                                                                                                                                                                                                                                                                                                                        |  | PE 0708083D I ACWA- Assembled Chemical Weapons Alternatives |         |              |                     |               |
| B. Program Change Summary (\$ in Millions)                                                                                                                                                                                                                                                                                                                                      |  | FY 2018                                                     | FY 2019 | FY 2020 Base | FY 2020 OCO         | FY 2020 Total |
| Previous President's Budget                                                                                                                                                                                                                                                                                                                                                     |  | 831.900                                                     | 880.283 | 922.511      | -                   | 922.511       |
| Current President's Budget                                                                                                                                                                                                                                                                                                                                                      |  | 831.900                                                     | 880.283 | 869.430      | -                   | 869.430       |
| Total Adjustments                                                                                                                                                                                                                                                                                                                                                               |  | 0.000                                                       | 0.000   | -53.081      | -                   | -53.081       |
| <ul style="list-style-type: none"> <li>• Congressional General Reductions</li> <li>• Congressional Directed Reductions</li> <li>• Congressional Rescissions</li> <li>• Congressional Adds</li> <li>• Congressional Directed Transfers</li> <li>• Reprogrammings</li> <li>• SBIR/STTR Transfer</li> <li>• Re-evaluation of requirements resulting in budget reduction</li> </ul> |  | -                                                           | -       | -            | -                   | -             |
| C. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                                                                            |  | FY 2018                                                     | FY 2019 | FY 2020      |                     |               |
| <b>Title:</b> The Assembled Chemical Weapons Alternatives (ACWA) Program                                                                                                                                                                                                                                                                                                        |  | 831.900                                                     | 880.283 | 869.430      |                     |               |
| <b>Description:</b> FY 2018 Accomplishments                                                                                                                                                                                                                                                                                                                                     |  |                                                             |         |              |                     |               |
| PCAPP Main Plant - continuation of chemical-agent operations.                                                                                                                                                                                                                                                                                                                   |  |                                                             |         |              |                     |               |
| PCAPP EDT - continuation of second EDS operations campaign and continuation of energetics destruction at Anniston SDC.                                                                                                                                                                                                                                                          |  |                                                             |         |              |                     |               |
| BGCAPP Main Plant - continuation of main plant systemization.                                                                                                                                                                                                                                                                                                                   |  |                                                             |         |              |                     |               |
| BGCAPP EDT - continuation of BGCAPP SDC systemization.                                                                                                                                                                                                                                                                                                                          |  |                                                             |         |              |                     |               |
| <b>FY 2019 Plans:</b>                                                                                                                                                                                                                                                                                                                                                           |  |                                                             |         |              |                     |               |
| PCAPP Main Plant - continuation of chemical-agent operations.                                                                                                                                                                                                                                                                                                                   |  |                                                             |         |              |                     |               |
| PCAPP EDT - completion of EDS operations and continuation of energetics destruction at Anniston SDC.                                                                                                                                                                                                                                                                            |  |                                                             |         |              |                     |               |
| BGCAPP Main Plant - continuation of main plant systemization.                                                                                                                                                                                                                                                                                                                   |  |                                                             |         |              |                     |               |
| BGCAPP EDT - start of chemical-agent campaign                                                                                                                                                                                                                                                                                                                                   |  |                                                             |         |              |                     |               |
| <b>FY 2020 Plans:</b>                                                                                                                                                                                                                                                                                                                                                           |  |                                                             |         |              |                     |               |
| PCAPP Main Plant - continuation of chemical-agent operations.                                                                                                                                                                                                                                                                                                                   |  |                                                             |         |              |                     |               |
| PCAPP EDT - completion of facilitization and systemization of PCAPP SDCs, start of PCAPP SDC chemical-agent operations and continuation of energetics destruction at Anniston SDC.                                                                                                                                                                                              |  |                                                             |         |              |                     |               |
| BGCAPP Main Plant - completion of systemization and start of chemical-agent operations.                                                                                                                                                                                                                                                                                         |  |                                                             |         |              |                     |               |

Budget Activity 2: Research, Development, Test & Evaluation

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                         |                |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------|----------------|----------------|
| <b>Exhibit R-2, RDT&amp;E Budget Item Justification: PB 2020 Chemical Demilitarization Program</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | <b>Date:</b> February 2019                                                                              |                |                |
| <b>Appropriation/Budget Activity</b><br>0390D: Chem Agents & Munitions Destruction I BA 2: RDT&E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | <b>R-1 Program Element (Number/Name)</b><br>PE 0708083D / ACWA- Assembled Chemical Weapons Alternatives |                |                |
| <b>C. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | <b>FY 2018</b>                                                                                          | <b>FY 2019</b> | <b>FY 2020</b> |
| BGCAPP EDT - completion of chemical-agent campaign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                         |                |                |
| <b>FY 2019 to FY 2020 Increase/Decrease Statement:</b><br>Re-evaluation of requirements resulting in budget reduction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                         |                |                |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 831.900                                                                                                 | 880.283        | 869.430        |
| <b>D. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                         |                |                |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                                                         |                |                |
| <b>Remarks</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                         |                |                |
| <b>E. Acquisition Strategy</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                         |                |                |
| <p>The ACWA Program is overseen by a program executive office, the PEO ACWA, headquartered at the Edgewood area of Aberdeen Proving Ground, Maryland. The program is primarily executed through systems contracts to design, construct, test, and operate main plants. The main plants will use first-of-a-kind (FOAK) disassembly equipment and neutralization destruction technology for the chemical agent and the munition body followed by on-site treatment of the neutralization by-product using biotreatment at Pueblo and supercritical water oxidation (SCWO) at Blue Grass.</p> <p>Two systems contracts, i.e., one per site, were competitively awarded to: Bechtel National Incorporated in 2002 for Pueblo Chemical Depot, Colorado, and to Bechtel Parsons Blue Grass (a Joint Venture) in 2003 for Blue Grass Army Depot, Kentucky. These contracts were originally awarded as indefinite delivery / indefinite quantity (IDIQ) task order contracts. However, due to program delays after award of these contracts and the ten-year ordering period for IDIQ contracts, the systems contracts were restructured to life-cycle service contracts to remove the IDIQ provisions, cover the balance of the work to be performed, and retain the multi-year authorization of the National Defense Authorization Act for FY 2007. Restructuring of the systems contracts was briefed to and endorsed by the Director, Defense Procurement and Acquisition Policy in 2008, and effected in 2009. The systems contracts are cost reimbursable type (CPAF) contracts.</p> |  |                                                                                                         |                |                |
| <b>F. Performance Metrics</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                         |                |                |
| The DoD uses the percentage of treaty-declared category 1 chemical weapons destroyed per year of operations, as a performance measure for the Chemical Demilitarization Program. This measure applies to the ACWA Program when destruction operations begin.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                         |                |                |

### Budget Activity 3: Procurement

| (In Thousands of Dollars) |          |
|---------------------------|----------|
| FY 2020 Estimate          | \$2,218  |
| FY 2019 Enacted           | \$1,091  |
| FY 2018 Actual            | \$18,081 |

#### Purpose and Scope

This budget activity provides for the procurement of process and support equipment to support Chemical Stockpile Emergency Preparedness Project (CSEPP) and RCWM Program Support Functions. In addition, it provides for the procurement of assessment, destruction, and neutralization equipment in support of the United States Chemical Demilitarization Program to safety and effectively assess and destroy recovered chemical warfare material. It includes costs for design, acquisition, fabrication, and installation of equipment. Also included are costs for initial spare parts, freight, software, maintenance, and operations manuals relating to specific equipment and design changes during construction and installation.

#### Justification of Funds Required

The FY 2020 budget request provides for continued acquisition of CSEPP alert notification system equipment for Madison County, Kentucky, and for replacement microwave repeater equipment for Estill County, Kentucky.

**Budget Activity 3: Procurement**

| Funded Financial Summary<br>(In Thousands of Dollars) |                   |                    |                     |
|-------------------------------------------------------|-------------------|--------------------|---------------------|
|                                                       | FY 2018<br>Actual | FY 2019<br>Enacted | FY 2020<br>Estimate |
| <b>Chemical Demilitarization Equipment</b>            |                   |                    |                     |
| Recovered Chemical Warfare Material Program           | 0                 | 0                  | 0                   |
| <b>Subtotal</b>                                       | <b>0</b>          | <b>0</b>           | <b>0</b>            |
| CSEPP On-Post - Mission                               | 1,294             | 0                  | 0                   |
| CSEPP Off-Post - Mission                              | 16,787            | 1,091              | 2,218               |
| <b>Subtotal</b>                                       | <b>18,081</b>     | <b>1,091</b>       | <b>2,218</b>        |
|                                                       |                   |                    |                     |
| <b>Total Funded</b>                                   | <b>18,081</b>     | <b>1,091</b>       | <b>2,218</b>        |

**Justification by Program**

**Chemical Stockpile Emergency Preparedness Project (CSEPP) Off-Post:** FY 2020 funds will be used by Madison County, Kentucky, to continue replacement of Adviser Alert Radio System equipment and by Estill County, Kentucky, to replace microwave repeater equipment for their radio communications infrastructure.

Budget Activity 3: Procurement

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| Exhibit P-40, Budget Line Item Justification: PB 2020 Chemical Demilitarization Program                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                  |               |                                        |              |             |               |                                                                                 |              |              | Date: February 2019 |               |                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------|----------------------------------------|--------------|-------------|---------------|---------------------------------------------------------------------------------|--------------|--------------|---------------------|---------------|------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>0390D: Chem Agents & Munitions Destruction / BA 03: Procurement / BSA 1:<br>Procurement                                                                                                                                                                                                                                                                                                                                                                                                                                     |                  |               |                                        |              |             |               | P-1 Line Item Number / Title:<br>0708081D / Chemical Demilitarization Equipment |              |              |                     |               |                  |
| ID Code (A=Service Ready, B=Not Service Ready):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                  |               | Program Elements for Code B Items: N/A |              |             |               | Other Related Program Elements: N/A                                             |              |              |                     |               |                  |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                  |               |                                        |              |             |               |                                                                                 |              |              |                     |               |                  |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Prior Years      | FY 2018       | FY 2019                                | FY 2020 Base | FY 2020 OCO | FY 2020 Total | FY 2021                                                                         | FY 2022      | FY 2023      | FY 2024             | To Complete   | Total            |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                | -             | -                                      | -            | -           | -             | -                                                                               | -            | -            | -                   | -             | -                |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2,496.886        | 18.081        | 1.091                                  | 2.218        | -           | 2.218         | 2.067                                                                           | 0.276        | 0.394        | 0.460               | 16.200        | 2,636.663        |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                | -             | -                                      | -            | -           | -             | -                                                                               | -            | -            | -                   | -             | -                |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2,496.886        | 18.081        | 1.091                                  | 2.218        | -           | 2.218         | 2.067                                                                           | 0.276        | 0.394        | 0.460               | 16.200        | 2,636.663        |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                | -             | -                                      | -            | -           | -             | -                                                                               | -            | -            | -                   | -             | -                |
| <b>Total Obligation Authority (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>2,496.886</b> | <b>18.081</b> | <b>1.091</b>                           | <b>2.218</b> | <b>-</b>    | <b>2.218</b>  | <b>2.067</b>                                                                    | <b>0.276</b> | <b>0.394</b> | <b>0.460</b>        | <b>15.200</b> | <b>2,536.663</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                         |                  |               |                                        |              |             |               |                                                                                 |              |              |                     |               |                  |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                | -             | -                                      | -            | -           | -             | -                                                                               | -            | -            | -                   | -             | -                |
| Flyaway Unit Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -                | -             | -                                      | -            | -           | -             | -                                                                               | -            | -            | -                   | -             | -                |
| Gross/Weapon System Unit Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                | -             | -                                      | -            | -           | -             | -                                                                               | -            | -            | -                   | -             | -                |
| <p><b>Description:</b><br/>                 This budget activity provides for the procurement of all process and support equipment used in the incineration disposal facilities for destroying the unitary chemical stockpile, equipment to support the closure of incineration facilities, Chemical Stockpile Emergency Preparedness Project (CSEPP) equipment, and assessment, destruction, and neutralization capabilities, in support of the United States Chemical Demilitarization Program, to safely and effectively assess and treat Recovered Chemical Warfare Materiel.</p> |                  |               |                                        |              |             |               |                                                                                 |              |              |                     |               |                  |

Budget Activity 3: Procurement

UNCLASSIFIED

| <b>Exhibit P-40, Budget Line Item Justification: PB 2020 Chemical Demilitarization Program</b>                                                                                                                                                                                                                                                                  |                                       |             |                                        |                |                                       | <b>Date: February 2019</b>                                                             |                                       |                                       |                                       |                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------|----------------------------------------|----------------|---------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>0390D: Chem Agents & Munitions Destruction / BA 03: Procurement / BSA 1: Procurement                                                                                                                                                                                                           |                                       |             |                                        |                |                                       | <b>P-1 Line Item Number / Title:</b><br>0708081D / Chemical Demilitarization Equipment |                                       |                                       |                                       |                                       |
| ID Code (A=Service Ready, B=Not Service Ready):                                                                                                                                                                                                                                                                                                                 |                                       |             | Program Elements for Code B Items: N/A |                |                                       | Other Related Program Elements: N/A                                                    |                                       |                                       |                                       |                                       |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                   |                                       |             |                                        |                |                                       |                                                                                        |                                       |                                       |                                       |                                       |
| Exhibits Schedule                                                                                                                                                                                                                                                                                                                                               |                                       |             |                                        |                | Prior Years                           | FY 2018                                                                                | FY 2019                               | FY 2020 Base                          | FY 2020 OCO                           | FY 2020 Total                         |
| Exhibit Type                                                                                                                                                                                                                                                                                                                                                    | Title*                                | Subexhibits | ID CD                                  | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M)                                                  | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a                                                                                                                                                                                                                                                                                                                                                           | Various                               |             |                                        |                | - / 2,496.886                         | - / 18.081                                                                             | - / 1.091                             | - / 2.218                             | - / -                                 | - / 2.218                             |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                     | <b>Total Gross/Weapon System Cost</b> |             |                                        |                | <b>- / 2,488.886</b>                  | <b>- / 18.081</b>                                                                      | <b>- / 1.091</b>                      | <b>- / 2.218</b>                      | <b>- / -</b>                          | <b>- / 2.218</b>                      |
| Exhibits Schedule                                                                                                                                                                                                                                                                                                                                               |                                       |             |                                        |                | FY 2021                               | FY 2022                                                                                | FY 2023                               | FY 2024                               | To Complete                           | Total                                 |
| Exhibit Type                                                                                                                                                                                                                                                                                                                                                    | Title*                                | Subexhibits | ID CD                                  | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M)                                                  | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a                                                                                                                                                                                                                                                                                                                                                           | Various                               |             |                                        |                | - / 2.057                             | - / 0.276                                                                              | - / 0.394                             | - / 0.460                             | - / 15.200                            | - / 2,536.663                         |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                     | <b>Total Gross/Weapon System Cost</b> |             |                                        |                | <b>- / 2.067</b>                      | <b>- / 0.276</b>                                                                       | <b>- / 0.384</b>                      | <b>- / 0.460</b>                      | <b>- / 16.200</b>                     | <b>- / 2,538.888</b>                  |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.                                                                                                               |                                       |             |                                        |                |                                       |                                                                                        |                                       |                                       |                                       |                                       |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exact due to rounding.                                                                                                                                                                                                                                                                            |                                       |             |                                        |                |                                       |                                                                                        |                                       |                                       |                                       |                                       |
| <p><b>Justification:</b><br/>           Chemical Stockpile Emergency Preparedness Project (CSEPP) Off-Post: FY 2020 funds will be used by Madison County, Kentucky, to continue replacement of Adviser Alert Radio System equipment, and by Estill County, Kentucky, to replace microwave repeater equipment for their radio communications infrastructure.</p> |                                       |             |                                        |                |                                       |                                                                                        |                                       |                                       |                                       |                                       |

Budget Activity 3: Procurement

UNCLASSIFIED

| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Chemical Demilitarization Program |       |                 |                  |            |                                                                                 |                  |            |                   |                  |            |                   |                  |            |                   | Date: February 2019                |            |                   |                  |            |                   |
|----------------------------------------------------------------------------------------------------------|-------|-----------------|------------------|------------|---------------------------------------------------------------------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------------------------|------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>0390D / 03 / 1                                 |       |                 |                  |            | P-1 Line Item Number / Title:<br>0708081D / Chemical Demilitarization Equipment |                  |            |                   |                  |            |                   |                  |            |                   | Aggregated Items Title:<br>Various |            |                   |                  |            |                   |
| Item Number / Title [DODIC]                                                                              | ID CD | MDAPI MAIS Code | Prior Years      |            |                                                                                 | FY 2018          |            |                   | FY 2019          |            |                   | FY 2020 Base     |            |                   | FY 2020 OCO                        |            |                   | FY 2020 Total    |            |                   |
|                                                                                                          |       |                 | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M)                                                               | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M)                   | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| <b>Other Programs</b>                                                                                    |       |                 |                  |            |                                                                                 |                  |            |                   |                  |            |                   |                  |            |                   |                                    |            |                   |                  |            |                   |
| 001 / RCWM-P                                                                                             |       |                 | -                | -          | 73.168                                                                          | -                | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                  | -          | -                 | -                | -          | -                 |
| 002 / CSEPP                                                                                              |       |                 | -                | -          | 532.410                                                                         | -                | -          | 18.081            | -                | -          | 1.091             | -                | -          | 2.218             | -                                  | -          | -                 | -                | -          | 2.218             |
| 003 / DIRECTOR, CMA SUPPORT ACTIVITIES                                                                   |       |                 | -                | -          | 1.727                                                                           | -                | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                  | -          | -                 | -                | -          | -                 |
| <b>Subtotal: Other Programs</b>                                                                          |       |                 | -                | -          | <b>607.305</b>                                                                  | -                | -          | <b>18.081</b>     | -                | -          | <b>1.091</b>      | -                | -          | <b>2.218</b>      | -                                  | -          | -                 | -                | -          | <b>2.218</b>      |
| <b>Facilities</b>                                                                                        |       |                 |                  |            |                                                                                 |                  |            |                   |                  |            |                   |                  |            |                   |                                    |            |                   |                  |            |                   |
| 001 / TOOLE CHEMICAL AGENT DISPOSAL FACILITY                                                             |       |                 | -                | -          | 401.007                                                                         | -                | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                  | -          | -                 | -                | -          | -                 |
| 002 / UMATILLA CHEMICAL AGENT DISPOSAL FACILITY                                                          |       |                 | -                | -          | 410.047                                                                         | -                | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                  | -          | -                 | -                | -          | -                 |
| 003 / JOHNSTON ATOLL CHEMICAL AGENT DISPOSAL FACILITY                                                    |       |                 | -                | -          | 56.928                                                                          | -                | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                  | -          | -                 | -                | -          | -                 |
| 004 / CHEMICAL AGENT MUNITIONS DISPOSAL SYSTEM                                                           |       |                 | -                | -          | 27.630                                                                          | -                | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                  | -          | -                 | -                | -          | -                 |
| 005 / CHEMICAL DEMILITARIZATION TRAINING FACILITY                                                        |       |                 | -                | -          | 24.885                                                                          | -                | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                  | -          | -                 | -                | -          | -                 |
| 006 / ANNISTON CHEMICAL AGENT DISPOSAL FACILITY                                                          |       |                 | -                | -          | 380.884                                                                         | -                | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                  | -          | -                 | -                | -          | -                 |
| 007 / PINE BLUFF CHEMICAL AGENT DISPOSAL FACILITY                                                        |       |                 | -                | -          | 328.806                                                                         | -                | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                  | -          | -                 | -                | -          | -                 |
| 008 / PM-CSE SUPPORT ACTIVITIES                                                                          |       |                 | -                | -          | 225.762                                                                         | -                | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                  | -          | -                 | -                | -          | -                 |
| 009 / EARLY CHEMICAL STOCKPILE DISPOSAL PROGRAM                                                          |       |                 | -                | -          | 33.632                                                                          | -                | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                  | -          | -                 | -                | -          | -                 |
| <b>Subtotal: Facilities</b>                                                                              |       |                 | -                | -          | <b>1,889.581</b>                                                                | -                | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                  | -          | -                 | -                | -          | -                 |
| <b>Total</b>                                                                                             |       |                 | -                | -          | <b>2,496.886</b>                                                                | -                | -          | <b>18.081</b>     | -                | -          | <b>1.091</b>      | -                | -          | <b>2.218</b>      | -                                  | -          | -                 | -                | -          | <b>2.218</b>      |
| Item Number / Title [DODIC]                                                                              | ID CD | MDAPI MAIS Code | FY 2021          |            |                                                                                 | FY 2022          |            |                   | FY 2023          |            |                   | FY 2024          |            |                   | To Complete                        |            |                   | Total Cost       |            |                   |
|                                                                                                          |       |                 | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M)                                                               | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M)                   | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| <b>Other Programs</b>                                                                                    |       |                 |                  |            |                                                                                 |                  |            |                   |                  |            |                   |                  |            |                   |                                    |            |                   |                  |            |                   |

LI 0708081D - Chemical Demilitarization Equipment  
Chemical Demilitarization Program

UNCLASSIFIED

Budget Activity 3: Procurement

UNCLASSIFIED

| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Chemical Demilitarization Program |       |                 |                  |                                                                                 |                   |                  |            |                   |                  |            |                   |                  |            | Date: February 2019                |                  |            |                   |                  |               |                   |   |                  |
|----------------------------------------------------------------------------------------------------------|-------|-----------------|------------------|---------------------------------------------------------------------------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|------------------------------------|------------------|------------|-------------------|------------------|---------------|-------------------|---|------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>0390D / 03 / 1                                 |       |                 |                  | P-1 Line Item Number / Title:<br>0708081D / Chemical Demilitarization Equipment |                   |                  |            |                   |                  |            |                   |                  |            | Aggregated Items Title:<br>Various |                  |            |                   |                  |               |                   |   |                  |
| Item Number / Title [DODIC]                                                                              | ID CD | MDAPI MAIS Code | FY 2021          |                                                                                 |                   | FY 2022          |            |                   | FY 2023          |            |                   | FY 2024          |            |                                    | To Complete      |            |                   | Total Cost       |               |                   |   |                  |
|                                                                                                          |       |                 | Unit Cost (\$ M) | Qty (Each)                                                                      | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M)                  | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each)    | Total Cost (\$ M) |   |                  |
| 001 / RCWM-P                                                                                             |       |                 | -                | -                                                                               | -                 | -                | -          | -                 | -                | -          | -                 | -                | -          | -                                  | -                | -          | -                 | -                | 15.200        | -                 | - | 88.368           |
| 002 / CSEPP                                                                                              |       |                 | -                | -                                                                               | 2.057             | -                | -          | 0.276             | -                | -          | 0.394             | -                | -          | 0.460                              | -                | -          | -                 | -                | -             | -                 | - | 556.987          |
| 003 / DIRECTOR, CMA SUPPORT ACTIVITIES                                                                   |       |                 | -                | -                                                                               | -                 | -                | -          | -                 | -                | -          | -                 | -                | -          | -                                  | -                | -          | -                 | -                | -             | -                 | - | 1.727            |
| <b>Subtotal: Other Programs</b>                                                                          |       |                 | -                | -                                                                               | <b>2.057</b>      | -                | -          | <b>0.276</b>      | -                | -          | <b>0.394</b>      | -                | -          | <b>0.460</b>                       | -                | -          | -                 | -                | <b>15.200</b> | -                 | - | <b>647.082</b>   |
| <b>Facilities</b>                                                                                        |       |                 |                  |                                                                                 |                   |                  |            |                   |                  |            |                   |                  |            |                                    |                  |            |                   |                  |               |                   |   |                  |
| 001 / TOOLE CHEMICAL AGENT DISPOSAL FACILITY                                                             |       |                 | -                | -                                                                               | -                 | -                | -          | -                 | -                | -          | -                 | -                | -          | -                                  | -                | -          | -                 | -                | -             | -                 | - | 401.007          |
| 002 / UMATILLA CHEMICAL AGENT DISPOSAL FACILITY                                                          |       |                 | -                | -                                                                               | -                 | -                | -          | -                 | -                | -          | -                 | -                | -          | -                                  | -                | -          | -                 | -                | -             | -                 | - | 410.047          |
| 003 / JOHNSTON ATOLL CHEMICAL AGENT DISPOSAL FACILITY                                                    |       |                 | -                | -                                                                               | -                 | -                | -          | -                 | -                | -          | -                 | -                | -          | -                                  | -                | -          | -                 | -                | -             | -                 | - | 56.928           |
| 004 / CHEMICAL AGENT MUNITIONS DISPOSAL SYSTEM                                                           |       |                 | -                | -                                                                               | -                 | -                | -          | -                 | -                | -          | -                 | -                | -          | -                                  | -                | -          | -                 | -                | -             | -                 | - | 27.630           |
| 005 / CHEMICAL DEMILITARIZATION TRAINING FACILITY                                                        |       |                 | -                | -                                                                               | -                 | -                | -          | -                 | -                | -          | -                 | -                | -          | -                                  | -                | -          | -                 | -                | -             | -                 | - | 24.885           |
| 006 / ANNISTON CHEMICAL AGENT DISPOSAL FACILITY                                                          |       |                 | -                | -                                                                               | -                 | -                | -          | -                 | -                | -          | -                 | -                | -          | -                                  | -                | -          | -                 | -                | -             | -                 | - | 380.884          |
| 007 / PINE BLUFF CHEMICAL AGENT DISPOSAL FACILITY                                                        |       |                 | -                | -                                                                               | -                 | -                | -          | -                 | -                | -          | -                 | -                | -          | -                                  | -                | -          | -                 | -                | -             | -                 | - | 328.806          |
| 008 / PM-CSE SUPPORT ACTIVITIES                                                                          |       |                 | -                | -                                                                               | -                 | -                | -          | -                 | -                | -          | -                 | -                | -          | -                                  | -                | -          | -                 | -                | -             | -                 | - | 225.762          |
| 009 / EARLY CHEMICAL STOCKPILE DISPOSAL PROGRAM                                                          |       |                 | -                | -                                                                               | -                 | -                | -          | -                 | -                | -          | -                 | -                | -          | -                                  | -                | -          | -                 | -                | -             | -                 | - | 33.632           |
| <b>Subtotal: Facilities</b>                                                                              |       |                 | -                | -                                                                               | -                 | -                | -          | -                 | -                | -          | -                 | -                | -          | -                                  | -                | -          | -                 | -                | -             | -                 | - | <b>1,889.581</b> |
| <b>Total</b>                                                                                             |       |                 | -                | -                                                                               | <b>2.067</b>      | -                | -          | <b>0.278</b>      | -                | -          | <b>0.394</b>      | -                | -          | <b>0.460</b>                       | -                | -          | -                 | -                | <b>15.200</b> | -                 | - | <b>2,638.663</b> |
| Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.        |       |                 |                  |                                                                                 |                   |                  |            |                   |                  |            |                   |                  |            |                                    |                  |            |                   |                  |               |                   |   |                  |