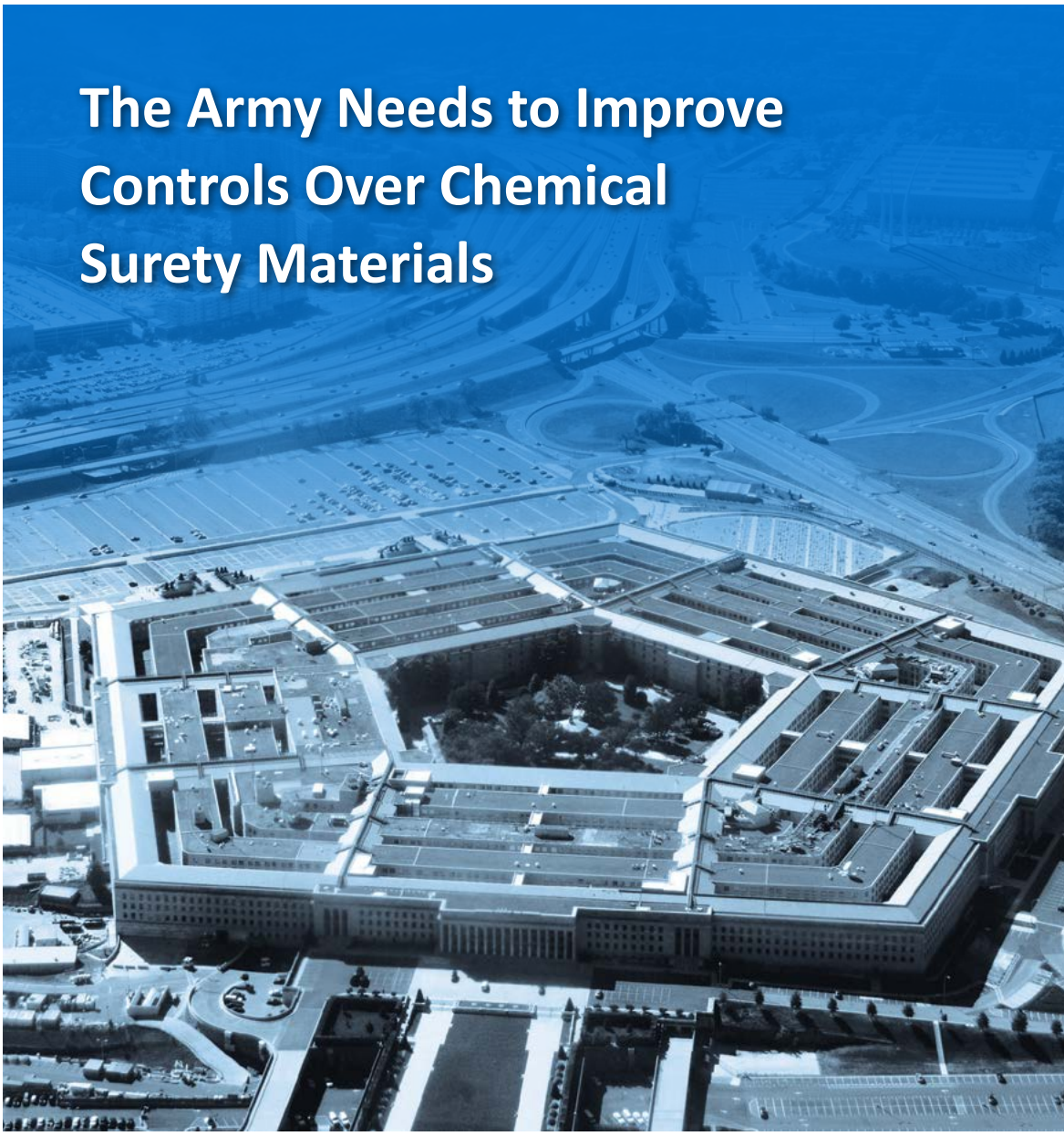
Report No. DODIG-2017-090

INSPECTOR GENERAL

U.S. Department of Defense

JUNE 7, 2017

The Army Needs to Improve Controls Over Chemical Surety Materials



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Results in Brief

The Army Needs to Improve Controls Over Chemical Surety Materials

June 7, 2017

Objective

We determined whether the DoD had effective controls over chemical surety materials[1] in the possession or under the control of the Army and DoD contractors. Specifically, we evaluated accountability and access controls over chemical surety materials at the U.S. Army Pueblo Chemical Depot (Pueblo), U.S. Army Dugway Proving Ground (Dugway), and a contractor. We also evaluated whether the personnel properly documented the destruction of assembled chemical munitions at Pueblo and U.S. Army Deseret Chemical Depot (Deseret).

Findings

Army officials properly implemented accountability controls such as inventory management or documenting the destruction of the chemical munition stockpile stored at Pueblo and Deseret; however, Army and contractor personnel did not fully implement accountability controls over chemical surety materials stored at Dugway and a contractor's facility. Specifically, Dugway and contractor officials did not conduct chemical agent inventories by primary container when one or more primary containers were stored in secondary containers.[2] Under the current process in place at these facilities, the primary containers remained sealed within the secondary containers during inventories;

[1] Chemical surety material is any neat (full-strength) or diluted chemical agent of which the quantity or concentration exceeds limits established by the Army. See Appendix C of this report.

[2] A primary container is a vessel, ampule, cylinder, or other receptacle that holds a chemical agent.

Findings (cont'd)

therefore, custodians cannot identify and account for leaks, evaporation, or theft that may have occurred. Furthermore, Dugway officials did not immediately notify the chemical materials accountability officer of a 1.5-milliliter shortage of the chemical surety material sarin (GB) identified during an April 19, 2016, inventory nor did they properly document the results of that inventory.

In addition, the type of secondary containers used to store chemical surety materials varied at Dugway and the contractor's facility, and each location used different materials to seal secondary containers. Specifically, Dugway used stainless steel cylinders and ammunition cans sealed with tamper-evident seals; and the contractor used re-sealable plastic containers sealed with tape, which provides no assurance that only authorized personnel had access to chemical surety materials. The Commander, Dugway Proving Ground, also assigned one individual to serve as the accountable officer and primary agent custodian. Although we did not identify instances of fraud or theft during the audit, not segregating the accountable officer and primary agent custodian duties increases the risk of recordkeeping errors and theft.

Army and contractor personnel did not fully implement Army accountability controls because Dugway and the contractor standard operating procedures contradict the Army Regulation (AR) 50-6, "Chemical Surety," July 28, 2008, requirement to conduct inventory by primary container. Although the proponents of DoD Instruction 5210.65, "Security Standards for Safeguarding Chemical Agents," January 19, 2016, stated that they agreed with the practice of conducting inventories by sealed, secondary containers, they had not documented that in the Instruction. Army Inspector General personnel stated that they conducted chemical surety inspections based on the proponents' agreed upon practice and not the AR 50-6 requirement. Additionally, DoD Instruction 5210.65 and AR 50-6 do not define minimum specifications for secondary containers and do not provide guidance on the appropriate segregation of duties over the

Results in Brief

The Army Needs to Improve Controls Over Chemical Surety Materials

Findings (cont'd)

accountability for chemical surety materials. Not fully implementing accountability controls and insufficient oversight and guidance increases the risk that Dugway and the contractor will not properly store and account for chemical surety materials.

In addition, personnel at Dugway, the contractor, and Pueblo did not consistently implement their respective chemical personnel reliability program (CPRP) requirements. Specifically, certifying officials did not always report prior drug use to reviewing officials; competent medical authorities did not always provide potentially disqualifying information to certifying officials; CPRP-certified individuals did not always self-report potentially disqualifying information in a timely manner; a certifying official at Pueblo did not properly refer an individual for medical evaluation after an alcohol-related incident; and officials did not always conduct personnel security investigations in a timely manner.

CPRP requirements were inconsistently implemented because chemical surety officers did not always provide effective oversight of the program. As a result, there was increased risk that those locations would not meet the purpose of the Army chemical surety program as stated in AR 50-6; which is to ensure that chemical agent operations are conducted in a safe, secure, and reliable manner.

Recommendations

We recommend that the Deputy Assistant Secretary of Defense for Chemical and Biological Defense revise DoD Instruction 5210.65 to provide clear guidance on appropriate segregation of duties and define acceptable inventory practices.

We recommend that the Deputy Chief of Staff, G-3/5/7, Headquarters Department of the Army coordinate with the Deputy Assistant Secretary of Defense for Chemical and Biological Defense to provide guidance on appropriate segregation of duties and revise AR 50-6 to align with the revision to DoD Instruction 5210.65 that defines acceptable inventory practices for Army and contractor facilities in possession of chemical surety materials. We also recommend that the U.S. Army Inspector General update chemical surety inspections to align with the revised DoD and Army guidance.

We recommend that the Commanding General, U.S. Army Materiel Command, and Commander, Dugway Proving Ground, require chemical material custodians to perform a 100-percent physical inventory of chemical agents, by primary container to establish a baseline of the chemical agent inventory before implementing any alternate inventory procedures; and update standard operating procedures to include any revised inventory requirements.

We also recommend that the Commander, Dugway Proving Ground, provide refresher training on reporting and resolving inventory discrepancies and establish adequate segregation of duties over the accountability of chemical surety material inventory.

We recommend that the Commanding General, U.S. Army Materiel Command; the Commander, Dugway Proving Ground; and the Commander, Pueblo Chemical Depot, implement additional internal controls to ensure the chemical surety officer provides effective oversight of compliance with Chemical Personnel Reliability Program requirements.

Results in Brief

The Army Needs to Improve Controls Over Chemical Surety Materials

Management Comments and Our Response

The Deputy Assistant Secretary of Defense for Chemical and Biological Defense partially agreed with the recommendation; he agreed to revise DoD Instruction 5210.65 and did not agree to provide guidance on the appropriate segregation of duties. Therefore, the recommendation is unresolved. The Deputy Assistant Secretary of Defense for Chemical and Biological Defense should provide comments to the final report specifying the minimum standards for a secondary container and the types of seals required, and how the duties of the primary agent custodian and the accountable officer will be segregated. We request that the Deputy Assistant Secretary of Defense for Chemical and Biological Defense provide comments to the final report by July 7, 2017.

The Department of the Army, Deputy Chief of Staff, G-3/5/7, agreed with the recommendation to revise AR 50-6 to define acceptable inventory practices for Army and contractor facilities in possession of chemical surety materials. Therefore, the recommendation is resolved and will be closed when we review and verify the revised AR 50-6 that includes acceptable inventory practices for Army and contractor facilities in possession of chemical surety materials. The Department of the Army, Deputy Chief of Staff, G-3/5/7, did not agree with the recommendation to provide guidance on the appropriate segregation of duties; therefore, the recommendation is unresolved. The Department of the Army, Deputy Chief of Staff, G-3/5/7, should specify how the duties of the primary agent custodian and the accountable officer will be segregated. We request that the Department of the Army, Deputy Chief of Staff, G-3/5/7, provide comments to the final report by July 7, 2017.

The Principal Deputy Chief of Staff for Operations and Logistics, G-3/4, responding for the Commanding General, U.S. Army Materiel Command, agreed with the recommendations:

- to conduct a 100-percent inventory by primary container to establish a baseline chemical agent inventory prior to implementing any alternate inventory procedures defined by the Deputy Assistant Secretary of Defense for Chemical and Biological Defense or the Department of the Army, Deputy Chief of Staff, G-3/5/7;
- to ensure the contractor's standard operating procedures are updated to include revised inventory procedures; and,
- that the U.S. Army Materiel Command Chemical Surety officer performs periodic reviews of the contractor's certifying official files to ensure chemical surety guidance is followed.

Therefore, the recommendations are resolved and will be closed when we verify that the contractor's standard operating procedures have been updated to include the revised inventory procedures and we review the results of the contractor's file review and laboratory certification.

Although the U.S. Army Inspector General did not agree with the recommendation to update chemical surety inspections to align with DoD Instruction 5210.65 and AR 50-6, his statement that he will modify the inspection methodology in response to changes in the DoD and Army standards addresses all specifics of the recommendation. Therefore, the recommendation is resolved and will be closed when we review the updated inspection methodology reflecting revisions to DoD Instruction 5210.65 and AR 50-6.

Management Comments (cont'd)

The Commander, Dugway Proving Ground, agreed with the recommendations to:

- conduct a 100-percent inventory by primary container to establish a baseline chemical agent inventory prior to implementing any alternate inventory procedures defined by the Deputy Assistant Secretary of Defense for Chemical and Biological Defense or the Department of the Army, Deputy Chief of Staff, G-3/5/7;
- update Dugway Proving Ground standard operating procedure, DP-0000-L-651 to comply with the updated inventory requirements;
- provide refresher training on reporting and resolving inventory discrepancies; and
- implement additional internal controls to ensure the chemical surety officer provides effective oversight.

Therefore, the recommendations are resolved and will be closed when we:

- review the results of the 100-percent inventories conducted in June and December 2016;
- verify that the standard operating procedure has been updated to comply with updated inventory requirements;
- review documentation verifying that personnel with chemical agent accountability duties received refresher training; and
- verify that Dugway Regulation 50-1 includes additions and changes in internal controls.

The Commander, Dugway Proving Ground, did not agree with the recommendation to ensure that segregation of duties over the accountability of chemical surety material inventory is maintained. Therefore, the recommendation is unresolved. The Commander, Dugway Proving Ground, should provide comments to the final report specifying how the segregation of duties over the accountability of chemical surety material inventory will be maintained. We request that the Commander, Dugway Proving Ground, provide comments to the final report by July 7, 2017.

The Commander, Pueblo Chemical Depot, agreed with the recommendation to develop and implement additional internal controls to ensure the chemical surety officer provides effective oversight. Therefore, the recommendation is resolved and will be closed when we verify that the internal controls have been updated. Please see the Recommendations Table on the next page.

Recommendations Table

Management	Recommendations Unresolved	Recommendations Resolved	Recommendations Closed
Deputy Assistant Secretary of Defense for Chemical and Biological Defense	A.1		
Headquarters Department of the Army, Deputy Chief of Staff, G-3/5/7	A.2.a	A.2.b	
Commanding General, U.S. Army Materiel Command		A.3.a, A.3.b, B.1	
U.S. Army Inspector General		A.4	
Commander, Dugway Proving Ground	A.5.d	A.5.a, A.5.b, A.5.c, B.2	
Commander, Pueblo Chemical Depot		B.3	

Please provide Management Comments by July 7, 2017.

The following categories are used to describe agency management's comments to individual recommendations.

- **Unresolved** – Management has not agreed to implement the recommendation or has not proposed actions that will address the recommendation.
- **Resolved** – Management agreed to implement the recommendation or has proposed actions that will address the underlying finding that generated the recommendation.
- **Closed** – OIG verified that the agreed upon corrective actions were implemented.


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June 7, 2017

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR CHEMICAL AND BIOLOGICAL DEFENSE
AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: The Army Needs to Improve Controls Over Chemical Surety Materials (Report No. DODIG-2017-090)

We are providing this report for your review and comment. Army officials properly implemented accountability controls such as inventory management and documenting the destruction of the chemical munition stockpile stored at U.S. Army Pueblo Chemical Depot and U.S. Army Deseret Chemical Depot; however, Army and contractor personnel did not fully implement accountability controls over chemical surety materials stored at U.S. Army Dugway Proving Ground and the contractor. Not fully implementing accountability controls and insufficient oversight and guidance increased the risk that chemical surety materials are not properly stored and accounted for at those facilities. In addition, personnel at U.S. Army Dugway Proving Ground, the contractor, and U.S. Army Pueblo Chemical Depot did not consistently implement their respective chemical personnel reliability program requirements and granted access to at least 22 personnel without properly determining whether those personnel met the suitability and reliability standards of the chemical personnel reliability program. We conducted this audit in accordance with generally accepted government auditing standards.

We considered management comments on a draft of this report when preparing the final report. DoD Instruction 7650.03 requires that recommendations be resolved promptly.

Comments from the Department of the Army, Deputy Chief of Staff, G-3/5/7, to Recommendation A.2.b; the Principal Deputy Chief of Staff for Operations and Logistics, G-3/4, responding for the Commanding General, U.S. Army Materiel Command, to Recommendations A.3.a, A.3.b, and B.1; the Department of the Army Inspector General to Recommendation A.4; the Commander, Dugway Proving Ground, to Recommendations A.5.a, A.5.b, A.5.c, and B.2; and the Commander, Pueblo Chemical Depot, to Recommendation B.3. addressed all specifics of the recommendations and conformed to the requirements of DoD Instruction 7650.03.

Comments from the Deputy Assistant Secretary of Defense for Chemical and Biological Defense to Recommendation A.1; the Department of the Army, Deputy Chief of Staff, G-3/5/7, to Recommendation A.2.a; and, the Commander, Dugway Proving Ground, to Recommendation A.5.d, only partially addressed the specifics of the recommendations. Therefore, those recommendations are unresolved. The Deputy Assistant Secretary of Defense for Chemical and Biological Defense; the Department of the Army, Deputy Chief of Staff, G-3/5/7; and, the Commander, Dugway Proving Ground, should provide additional comments to Recommendations A.1, A.2a, and A.5.d, respectively, by July 7, 2017.

Please send a PDF file containing your comments to audrco@dodig.mil. Copies of your comments must have the actual signature of the authorizing official for your organization. We cannot accept the /Signed/ symbol in place of the actual signature. If you arrange to send classified comments electronically, you must send them over the SECRET Internet Protocol Router Network (SIPRNET).

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 699-7331 (DSN 499-7331).

Carol N. Gorman
Assistant Inspector General
Readiness and Cyber Operations

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Introduction

Objective

We determined whether the DoD had effective controls over chemical surety materials in the possession or under the control of the Army and DoD contractors. Specifically, we evaluated accountability and access controls over chemical surety materials at the U.S. Army Pueblo Chemical Depot (Pueblo), U.S. Army Dugway Proving Ground (Dugway), and a contractor. We also evaluated whether the personnel properly documented the destruction of assembled chemical munitions at Pueblo and U.S. Army Deseret Chemical Depot (Deseret). See Appendix A for a discussion of scope and methodology related to the audit objective.

Background

In 1997, the United States ratified the Chemical Weapons Convention Treaty.[3] According to the Centers for Disease Control and Prevention, the United States agreed to destroy its declared stockpile of approximately 30,500 tons of chemical warfare agents. The U.S. stockpile was stored at nine sites,[4] in either bulk containers or as assembled munitions. Chemical agent disposal facilities were built at each site to destroy the stockpile. The chemical agents at seven of the nine sites have been destroyed, and those disposal facilities were closed. The remaining two disposal facilities are under construction at Pueblo and the Blue Grass Army Depot in Kentucky (Blue Grass).

The Chemical Weapons Convention Treaty allows "State Parties" such as the United States to use Schedule 1 chemicals,[5] "for research, medical, pharmaceutical or protective purposes." Army Regulation (AR) 50-6 defines chemical surety materials as any neat (full-strength) or diluted Schedule 1 chemical agent of which the quantity or concentration exceeds limits established by the Army. See Appendix C for the list of chemical surety materials and thresholds.[6] The Army uses chemical surety materials to conduct research and development in Government and contractor laboratories.

[3] "Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and Their Destruction," July 29, 2005.

[4] The nine sites were in Alabama, Arkansas, Colorado, Indiana, Johnston Atoll, Kentucky, Maryland, Oregon, and Utah.

[5] Schedule 1 chemicals include alkyl, sulfur mustards, lewisites, nitrogen mustards, and chlorosarin. The chemicals have been developed, produced, stockpiled, or used as chemical weapons.

[6] AR 50-6, Chemical Surety, July 28, 2008.

Chemical Surety Program

The chemical surety program is a system of control measures designed to provide protection to the local population, workers, and the environment by ensuring that chemical surety operations[7] are conducted safely; that chemical surety materials are secure; and that personnel involved in those operations meet the highest standards of reliability.

Personnel who have access to chemical surety materials are required to be screened for suitability. AR 50-6 contains guidance for the Army's chemical personnel reliability program (CPRP). The CPRP is a tool for commanders and directors to make risk-based assessment decisions to ensure that individuals with access to chemical surety materials meet high standards of reliability. AR 50-6 paragraph 2-1 states that the CPRP includes:

- identifying positions with duties that afford access to chemical surety materials;
- designating officials who will certify the reliability and suitability of individuals in the CPRP;
- screening, evaluating, and certifying individuals for the CPRP;
- continuing evaluation in the form of periodic reinvestigations, drug tests, and evaluation by supervisors, fellow workers, certifying officials, and support agency personnel, as well as self-reporting by individuals enrolled in the CPRP; and
- removing individuals from CPRP duties due to medical restriction, suspension, disqualification, or administrative termination.

Chemical Surety Program Roles and Responsibilities

DoD Instruction 5210.65 states that the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs establishes the DoD security standards to safeguard chemical agents.[8] These security standards include inventory, accountability, and reporting requirements for DoD Components that possess, acquire, consume, store, transfer or dispose of Schedule 1 chemicals.

Deputy Chief of Staff, G-3/5/7, has overall responsibility for the Army chemical surety program. Specifically, the Deputy Chief establishes policy, resolves questions arising from chemical surety inspections, and establishes maximum

[7] Chemical surety operations include, but are not limited to, the storage, shipping, handling, manufacturing, maintenance, test activities, laboratory activities, surveillance, demilitarization, decontamination, disposal, and training.

[8] DoD Instruction 5210.65, "Security Standards for Safeguarding Chemical Agents," January 19, 2016.

allowable limits of chemical agent stored and maintained at each Army facility, among other responsibilities. The following paragraphs describe the roles and responsibilities for implementing the Army's Chemical Surety Program as stated in AR 50-6.

The U.S. Army Materiel Command oversees Government and contractor facilities that use Army-owned chemical surety materials, except for facilities conducting medical research, which are overseen by the U.S. Army Medical Command. The Chemical Materials Activity[9] stores the chemical weapons stockpile, including the remaining chemical weapons stored in Pueblo and Blue Grass. The U.S. Army Edgewood Chemical Biological Center is the primary DoD organization for non-medical chemical and biological defense. The Center promotes research, development, testing, and the application of technologies for protecting our military from chemical and biological warfare agents. Furthermore, DoD Components submit all requests for Schedule 1 chemicals to the DoD accountability manager at the Center.

The U.S. Army Test and Evaluation Command has responsibility for all Army developmental and operational testing, and operates from subordinate commands and test centers, including Dugway. U.S. Army Medical Command establishes guidance for individuals performing CPRP duties and stipulates the medical information that must be reported and maintained with respect to CPRP assessments. The Department of the Army Inspector General establishes standard inspection policies, procedures, and techniques for the Army Chemical Surety Program and conducts chemical surety inspections and chemical management evaluations.

Commanders or directors of facilities designate custodians and accountable officials to implement inventory management of the chemical surety materials. The custodian's store, request, receive, issue for use, destroy, or transfer chemical surety materials with the approval of the accountable officer. Custodians also conduct 100-percent physical inventories of all chemical surety materials, by primary container, at least semiannually. The accountable officer ensures chemical surety materials are maintained under a system of records from acquisition or production through use, destruction, or transfer.

Commanders and directors designate a certifying official, competent medical authority, and reviewing official, who implement the CPRP and assess the reliability of personnel certified into the CPRP. The certifying official certifies that personnel being considered for assignment to chemical duties meet the requirements of the CPRP. The competent medical authority is appointed in writing by the medical

[9] The Chemical Materials Activity is a subordinate activity of the U.S. Army Materiel Command.

treatment facility commander (or contracting officer's representative) to review healthcare services or conduct clinical evaluations for purposes of the CPRP. The reviewing official is responsible for chemical surety operations or contracts at a level above the certifying official, and responsible for monitoring the CPRP and reviewing designated CPRP actions.

The chemical surety officer manages the day-to-day operations and also monitors and evaluates the chemical surety program. Specifically, the chemical surety officer monitors chemical safety, security, accident and incident response, inventory management, and personnel reliability. The chemical surety officer must also alert the commander or director of the facility to any incidents or shortcomings of the chemical surety program. For more information on individual roles and responsibilities of CPRP personnel, see Appendix B.

Chemical Surety Guidance

DoD Instruction 5210.65 establishes standards for securing and safeguarding Schedule 1 chemical agents that are in the custody or possession of the DoD.[10] The Instruction also establishes CPRP criteria for the requirements of initial and periodic security reviews; threat and vulnerability assessments; and inspections. The Instruction applies to all DoD activities that furnish, have custody of, or have possession of Schedule 1 chemical agents for research, medical, pharmaceutical, training, and protective purposes. The Instruction also applies to contractors and consultants requiring access to DoD chemical agents to the extent applicable provisions are incorporated into and made a part of such contract.

AR 50-6 establishes Army policies, assigns responsibilities, and prescribes procedures for the Army Chemical Surety Program. The Regulation states, "chemical surety material in the possession or custody of the Army shall be properly safeguarded against theft, loss, diversion, or unauthorized access or use, and that operations with such materials are conducted in a safe, secure, and reliable manner." In addition, primary custodians of chemical surety material must conduct a 100-percent inventory of all chemical agents at least semiannually.

AR 190-59 implements the security requirements prescribed in DoD Instruction 5210.65 and establishes policies, procedures, and minimum standards for the physical security of chemical agents stored at DoD and contractor facilities.[11] The Regulation also establishes physical security requirements and measures that apply to storing, transporting, and demilitarizing chemical agents, regardless of location.

[10] DoD Instruction 5210.65, "Security Standards for Safeguarding Chemical Agents," January 19, 2016.

[11] AR 190-59, "Chemical Agent Security Program," April 10, 2012.

Review of Internal Controls

DoD Instruction 5010.40 requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance that programs are operating as intended and to evaluate the effectiveness of the controls.[12] We identified internal control weaknesses in the inventory procedures for chemical surety materials. Specifically, Dugway and the contractor did not conduct physical inventories of all chemical agent primary containers in accordance with Army guidance. We also identified internal control weaknesses in the management of the CPRP. Specifically, Dugway, the contractor, and Pueblo Chemical Depot officials did not administer the CPRP in accordance with Army guidance at Pueblo, Dugway, and the contractor. We will provide a copy of the report to the senior official responsible for internal controls in the Department of the Army.

[12] DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013.

Finding A

Chemical Agent Accountability Controls Were Not Fully Implemented

Army officials properly implemented accountability controls over the chemical munition stockpile stored at Pueblo and Deseret; however, Army and contractor officials did not fully implement accountability controls over chemical surety materials stored at Dugway and the contractor's facility. Specifically:

- Dugway and contractor officials did not conduct chemical agent inventories by primary container, when one or more primary containers were stored in secondary containers;
- Dugway officials did not immediately notify the chemical materials accountability officer of a 1.5-milliliters shortage of chemical surety material (Sarin GB) identified during an April 19, 2016, inventory; and
- Dugway officials did not properly document inventory results upon completion of the April 19, 2016, inventory.

In addition, the type of secondary containers used to store chemical surety materials varied at Dugway and the contractor facility, and each location used different processes to seal secondary containers. Dugway officials also did not maintain adequate segregation of duties for its accountable officer and primary custodian positions. Although we did not identify instances of fraud or theft during the audit, not segregating the accountable officer and primary agent custodian duties increases the risk of recordkeeping errors or theft.

Army and contractor personnel did not fully implement Army accountability controls over chemical surety materials because Dugway and the contractor standard operating procedures contradicted inventory requirements in AR 50-6. Although the proponents of DoD Instruction 5210.65 stated that they agreed with the practice of conducting inventories by sealed, secondary containers, they had not documented that in the Instruction. In addition, Army Inspector General personnel stated that they did not conduct chemical surety inspections in accordance with AR 50-6, relying instead on the proponents' undocumented agreed-upon-practices as the basis for their inspections. Additionally, DoD Instruction 5210.65 and AR 50-6 do not define minimum specifications for secondary containers and seals and do not provide guidance on the appropriate segregation of duties over the accountability for chemical surety materials. Not fully implementing accountability controls and insufficient oversight and guidance increases the risk that Dugway and the contractor will not properly store and account for chemical surety materials.

Accountability Controls Properly Implemented at Pueblo and Deseret

Army officials properly implemented accountability controls over the chemical munition stockpile stored at Pueblo and Deseret. Army officials at Pueblo properly implemented accountability controls over the chemical munition stockpile stored at the installation. We conducted an inventory of 45,707 assembled chemical munitions and did not identify any discrepancies.[13] Before we conducted our inventory, supply personnel demonstrated how they conduct inventory. From this demonstration, we determined that the inventory process complied with requirements in U.S. Army Materiel Command Regulation 740-28.[14] Specifically, personnel verified the actual number of weapons on hand against the accountable records and compared accuracy of label data (lot, stock, and serial numbers) as required by the Regulation. We also observed that appropriate physical security measures such as locks, steel doors, intrusion detection systems, and armed guards, were in place as required by AR 190-59.[15]

Army officials at Pueblo and Deseret properly implemented accountability controls for the destruction of chemical munitions. Specifically, we did not identify any discrepancies for the destruction certificates we reviewed for assembled chemical munitions at Pueblo and Deseret. The Chemical Agent Management Information Network[16] reported that 138 assembled chemical munitions stored at Pueblo and 5,576 at Deseret were destroyed. We reviewed the documentation supporting the destruction of 76 of these munitions (33 at Pueblo and 43 at Deseret). Specifically, we compared destruction certificates to the record in the Chemical Agent Management Information Network and determined their destruction had been recorded in accordance with U.S. Army Materiel Command Regulation 740-28.

[13] The team extracted the number of storage magazines that contained chemical munitions at Pueblo from the Chemical Agent Management Information Network. The team provided the list of 95 magazines to the DoD OIG Quantitative Methods Division, which identified a nonstatistical sample size of 6 magazines containing 45,707 munitions to be inventoried.

[14] Army Materiel Command Regulation 740-28, "Toxic Chemical Munitions and Bulk Agent, Inventory and Accountability," August 3, 2011.

[15] Army Regulation 190-59, "Chemical Agent Security Program," April 10, 2012.

[16] The Chemical Agent Management Information Network is a system the Army uses to meet reporting requirements for compliance with the Chemical Weapons Convention.

Controls Over Chemical Agent Inventories Not Fully Implemented at Dugway and the Contractor

Dugway officials did not immediately notify the chemical materials accountability officer of a shortage identified during an inventory...and did not properly document the inventory results.

Army and contractor officials did not fully implement accountability controls over chemical agents located at Dugway and the contractor. Specifically, Dugway and contractor officials did not conduct chemical agent inventories by primary container when one or more primary containers were stored in secondary containers. Furthermore, Dugway officials did not immediately notify the chemical materials accountability officer of a chemical agent inventory shortage identified during an inventory on April 19, 2016, and did not properly document the results of that inventory.

Chemical Agent Inventories Were Not Always Conducted By Primary Container

The contractor and Dugway custodians did not physically verify the contents of the primary containers unless the sealed secondary container was opened for use or a random inspection.

Dugway and the contractor's primary custodians[17] did not always conduct inventories by primary container. AR 50-6 states that the primary custodian will conduct a 100-percent physical inventory of chemical surety materials, by primary container, at least semiannually. At Dugway and the contractor, if one or more primary containers were placed and sealed in a secondary container, custodians relied on inventory data written on the secondary container content label to verify the quantity of chemical surety material. The custodians did not physically verify the contents of the primary containers unless the sealed secondary container was opened for use or a random inspection.

Dugway

Dugway inventory records indicated that from March 2015 to April 2016, custodians conducted chemical agent inventories without opening the secondary containers. On April 19, 2016, we observed the inventory of 41 chemical surety materials at the Combined Chemical Test Facility and the Bushnell Material Test Facility located at Dugway.[18] Inventory records for one of the chemical surety materials in the audit sample, vial GB11501, indicated that the vial contained

[17] At the contractor, personnel who perform primary agent custodian duties are referred to as "chemical agent custodian."

[18] Dugway provided us with an inventory list of 534 agents. We gave the list to the DoD OIG Quantitative Methods Division that identified a nonstatistical sample size of 41 of 534 chemical agents to be inventoried.

39-milliliters of sarin (GB). However, when the tamper-evident seal on the secondary container was broken and the secondary container was opened, the vial contained 37.5-milliliters of sarin, which was 1.5-milliliters less than the quantity recorded on the primary container and in the inventory records. According to Dugway inventory records, the secondary container holding vial GB11501 was last opened and re-sealed on March 4, 2015, and was not re-opened until the inventory was conducted on April 19, 2016.

The Dugway alternate custodian who conducted the inventory stated that the sarin (GB) inventory shortage could have been caused by leakage or evaporation; there was no evidence that the 1.5-milliliter shortage was caused by theft.[19] We observed that the Commander, Dugway Proving Ground, implemented physical security measures to reduce the risk of theft, such as an intrusion detection system to monitor access to the facility and chemical storage areas and the use of entry controls, such as key and lock procedures and the 2-person rule.[20] Although the physical security measures reduce the risk of theft or unauthorized access to the chemical agents, conducting inventory by secondary container prevents custodians from detecting and accounting for chemical agent that has leaked or evaporated from primary containers.

Dugway officials stated that subsequent to our site visit, on June 7 and 8, 2016, they conducted a semiannual inventory by primary container at the Bushnell Material Test Facility. During the inventory, the inventory team determined that vials contained in three other sealed secondary containers showed evidence of leakage.[21] According to Dugway officials, they are procuring a system to "flame-seal" glass ampules to help ensure the long-term stability of chemical agents in storage.

The Contractor

Contractor custodians did not measure the volume of the chemicals while conducting semiannual inventories of chemical surety materials. On April 29, 2016, we observed the inventory of 34 primary containers of chemical surety material at the contractor's facility.[22] Although no discrepancies were noted during the inventory, personnel performing the inventory only matched the volume indicated in the inventory records to the volume recorded on the label on the

[19] We observed that the seal placed on the container in March 2015 remained intact until we opened the secondary container to conduct the inventory in April 2016.

[20] According to AR 50-6, all operations involving access to chemical surety material require at least two CPRP-certified persons to be physically present, able to recognize an unsafe act, and be capable of performing self- or buddy-aid in case of exposure to chemical agent.

[21] The inventory team consisted of the primary agent custodian, two alternate agent custodians, and the required disinterested party.

[22] The contractor provided us with an inventory list of 149 agents. We gave the list to the Quantitative Methods Division that identified a nonstatistical sample of 34 of 149 chemical agents to be inventoried.

outside of the secondary container. They did not measure the actual quantities of chemical surety materials contained in the primary containers. The volume shown on the label on the outside of the secondary container was either the initial volume established when the chemical surety material was received at the facility or was the net amount remaining after material was extracted for research purposes.[23]

Contractor personnel did not . . . verify that the actual volume of chemical surety material in the primary container matched the amount recorded on the secondary container.

During the April 2016 inventory, contractor personnel did not visually or physically measure the contents to verify that the actual volume of chemical surety material in the primary container matched the amount recorded on the secondary container. Specifically, we noted that the primary containers did not have graduated markings that would allow the personnel conducting the inventory to visually verify the volume. By contrast, the primary containers used at Dugway did have graduated markings allowing for an accurate determination of the quantities of chemical surety materials on hand. In the absence of the graduated markings, the inventory team did not use other inventory methods, such as weighing the primary containers, to measure and physically verify the volume. Contractor personnel solely relied on the amount recorded on the secondary container when they conducted the inventory.

Dugway Custodian Did Not Notify Accountable Officer of Inventory Shortage in a Timely Manner

The custodian at Dugway did not properly notify the chemical surety materials accountable officer of the 1.5-milliliter shortage of sarin (GB) identified during the inventory on April 19, 2016. AR 50-6 states discrepancies will be reported and resolved as specified in the facility standard operating procedures. Dugway standard operating procedures state that "chemical surety material custodian(s) and alternate(s) immediately report losses, misplacements, tampering or any quantity outside of the established uncertainty of the container to the chemical surety material accountable officer."[24]

Dugway procedures state that the maximum inventory adjustment amount authorized is +/- 1-milliliters. In the case of vial GB11501, the 1.5-milliliter shortage of sarin (GB) exceeded the established limit. Therefore, the Dugway

[23] The net amount recorded on the secondary container is determined by subtracting the amount withdrawn from the initial volume (first withdrawal from the primary container) or the previous net amount in the case of multiple withdrawals.

[24] "Established uncertainty" refers to the maximum inventory adjustment that may be applied by the agent custodian in accordance with AR 50-6. Dugway officials interpreted immediately as not later than the end of the day.

Figure 1. Vials of Chemical Surety Materials
Source: Contractor.

chemical surety material custodians conducting the inventory should have notified the accountable officer immediately. However, the accountable officer was not notified until the day after the inventory was conducted.

Dugway Custodian Did Not Properly Document Inventory Results

Dugway personnel also did not properly complete documentation to support the physical inventory conducted on April 19, 2016. According to the Dugway procedure, the custodian will prepare a report for the accountable officer reflecting the inventory date, results, and personnel present at the inventory. After the inventory on April 19, 2016, one of the Alternate Agent Custodians prepared a memorandum for the accountable officer that summarized the results of the inventory. However, the memorandum did not identify the shortage in vial GB11501.

On April 20, 2016, we asked the primary custodian why the memorandum did not report the shortage. The primary custodian stated that a separate memorandum would be prepared to document the shortage, and the stock record card would be updated to reflect the shortage. We verified that the custodian prepared

an addendum to the original memorandum on April 20, 2016, and updated the stock record for vial GB11501 to reflect the correct inventory amount. Dugway officials should provide additional training to reinforce chemical surety personnel's understanding of local discrepancy reporting and resolution procedures for chemical agent inventories.

Type of Secondary Containers Storing Chemical Surety Materials Varied at Dugway and the Contractor

During the inventories we conducted at Dugway and the contractor, we observed that the type of secondary containers used to store chemical surety materials varied at each location and each location used different materials to seal secondary containers. For example, we observed Dugway officials using stainless steel cylinders and ammunition cans with tamper-evident seals. In contrast, the contractor's secondary containers consisted of re-sealable plastic containers, which officials stated were sealed with tape. In followup meetings, an official from the office of the Deputy Secretary of Defense for Chemical and Biological Defense stated that there could be differences in processes and procedures between Dugway and the contractor because the latter is a contractor facility. However, the official also stated that re-sealable plastic containers and tape were not the correct materials to use for secondary containers. Although tamper-evident seals, such as those used at Dugway, show whether someone attempted to gain unauthorized access to a chemical agent, the use of tape by the contractor would only show if someone accessed the chemical surety materials. It would not prevent someone from attempting to gain unauthorized access.

The contractor's secondary containers consisted of re-sealable plastic containers, which officials stated were sealed with tape.

Figure 2. Stainless Steel Cylinder, Ammunition Can, and Plastic Storage Container Used as Secondary Containers at Dugway and the Contractor
Sources (from left): Dugway Proving Ground (photos 1 and 2), and Contractor (photo 3).

Dugway Did Not Maintain Appropriate Segregation of Duties Among Inventory Accountability Personnel

The Commander, Dugway Proving Ground, did not maintain appropriate segregation of duties for the accountability of chemical surety materials. In August 2016, the installation surety officer notified the audit team that on June 23, 2016, the accountable officer duties for Dugway were assigned to the primary custodian, who also retained custodian duties. Government Accountability Office standards state that organizations should separate the responsibilities for authorizing transactions, processing and recording them, reviewing transactions, and handling any related assets. Although we did not identify instances of fraud or theft during the audit, not segregating the accountable officer and primary agent custodian duties increases the risk of recordkeeping errors, or theft. Proponents of DoD Instruction 5210.65 and AR 50-6 should update their respective criteria to provide clear guidance on the appropriate segregation of duties among positions responsible for chemical surety materials. The Commander, Dugway Proving Ground, should ensure that the duties associated with the positions of accountable officer and primary agent custodian are performed by separate individuals.

The Commander, Dugway Proving Ground, did not maintain appropriate segregation of duties for the accountability of chemical surety materials.

The accountable officer duties for Dugway were assigned to the primary custodian, who also retained custodian duties.

Standard Operating Procedures at Dugway and the Contractor Contradict AR 50-6

Army and contractor personnel did not fully implement Army accountability controls because Dugway and the contractor standard operating procedures contradicted inventory requirements in AR 50-6. Although the standard operating procedures at each location require custodians to conduct 100-percent physical inventory of all accountable chemicals by primary container, the procedures also direct custodians not to break the seal on a secondary container solely for inventory purposes. Rather, the custodian is permitted to read the secondary container to determine the amount in the primary container and then compare it to the previous inventoried amount. At Dugway, personnel incorrectly applied a section of AR 50-6 relating to how primary containers may be accounted for on stock records to how primary containers should be inventoried. At the contractor,

personnel conducted inventories based on verbal guidance and procedures suggested by U.S. Army Materiel Command, however, U.S. Army Materiel Command did not seek or receive an exception or wavier from the AR 50-6 proponent to conduct inventory using sealed secondary containers.

Dugway Personnel Incorrectly Applied Guidance

Dugway personnel incorrectly applied AR 50-6, Section 5-2 (c) (5) on how they maintained stock records when conducting inventory. The primary custodian for Dugway stated that inventories were conducted by secondary container because, according to AR 50-6, the custodian will maintain stock records of accountable chemicals by line item entry. The custodian explained that a line item was a primary container and that substantially identical primary containers may be aggregated under one line item in the stock records. However, although AR 50-6 allows substantially identical primary containers to be aggregated for stock record purposes AR 50-6 does not authorize that for physical inventories. AR 50-6 states that the custodian will conduct a 100-percent physical inventory of all accountable chemicals, by primary container.

The Contractor's Inventory Procedures Based on Verbal Guidance from U.S. Army Materiel Command

In August 2015, the chemical agent provisioning manager in the G-3/4 Surety Division at Headquarters, U.S. Army Materiel Command, also recommended the contractor conduct inventories by secondary containers instead of conducting a 100-percent inventory of the primary containers. The manager stated that the use of sealed secondary containers was an accepted practice for AR 50-6 inventory requirements "for many years" and that it is similar to the accepted practice for material inventories as discussed in AR 710-2.[25] According to the manager, the U.S. Army Edgewood Chemical Biological Center Accountable Officer, who is also responsible for contractor accountability, allowed the custodian to use the secondary container seal process and furnished guidance to the contractor on an acceptable alternate process. However, officials at Headquarters, U.S. Army Materiel Command, were not authorized by the AR 50-6 proponent to use an alternative inventory method. As a result, the justification provided by the chemical agent provisioning manager did not support inventorying secondary containers instead of a 100-percent physical inventory of primary containers as required by AR 50-6.

[25] AR 710-2, "Supply Policy Below the National Level," March 28, 2008. The regulation provides supply policy for the Army but does not apply to chemical surety materials. Specifically, paragraph 3-23.d.6 "Supply Control" references to AR 50-6 for chemical materials.

DoD and Army Guidance Needs Clarification

In followup meetings, the proponent of DoD Instruction 5210.65[26] stated that the intent of the Instruction was not to disallow the use of a seal process or inventory by secondary container when an appropriate seal process was being used. In addition, the proponent for AR 50-6[27] stated that the intent was to conduct initial inventories by primary container, place the primary containers in a secondary container, apply a tamper-evident seal on the secondary container, label the secondary container, and then conduct all future inventories using the label on the outside of the secondary container. Although the proponents of DoD Instruction 5210.65 stated that they agreed with the practice of conducting inventories by sealed, secondary containers, they had not documented that in the Instruction nor did officials provide written authorization to the facilities to use the alternate procedures.

Furthermore, DoD Instruction 5210.65 and AR 50-6 do not establish minimum specifications for secondary containers and tamper-evident seals. Personnel from both proponents of the guidance stated that the use of secondary containers and tamper-evident seals to store and secure chemical surety materials is acceptable. However, neither criteria defines appropriate specifications for the containers and seals. The types of secondary containers and seals we observed ranged from stainless steel cylinders with tamper-evident seals to plastic containers sealed with tape.

Chemical Surety Inspections Did Not Identify Noncompliance with Inventory Requirements

Army Inspector General inspectors stated they relied on the proponents' undocumented agreed-upon-practices when conducting chemical surety inspections. Accordingly, they did not identify discrepancies with accountability controls during chemical surety inspections conducted in March 2014 and January 2015 at Dugway and in September 2012 and September 2014 at the contractor. Army Inspector General inspectors conduct biannual chemical surety inspections of all U.S. Army activities, organizations, and contractor operations with chemical surety missions. The scope of these inspections includes mission operations (including inventory processes), safety, security, emergency response, and surety management (including the CPRP). Army and contractor personnel relied on the results of the chemical surety inspections when implementing and monitoring the chemical surety program at each site. An Army Inspector General official stated that inventory by secondary container was an accepted practice as long as the facilities were using tamper-evident seals. However, the official could not provide written guidance that supported this practice.

[26] Deputy Assistant Secretary of Defense for Chemical and Biological Defense.

[27] Headquarters, Department of the Army Deputy Chief of Staff G-3/5/7.

The Army is at Increased Risk of Improper Storage and Accountability of Chemical Surety Materials

By not fully implementing the Army's accountability controls and not having adequate oversight and guidance, the Army is at increased risk that chemical surety materials are not properly stored and accounted for at Dugway and the contractor. The Army has implemented engineering controls[28] to mitigate the risk to personnel of exposure to chemical surety material leaks. However, under current inventory practices, primary containers of chemical surety material could remain sealed for years inside secondary containers. If vials containing chemical surety material start to leak and their contents are not periodically verified through inventories, Army and contractor personnel may not detect and properly account for the loss. Additionally, the lack of guidance on appropriate secondary containers and seal processes increased the risk that chemical surety materials were not properly stored at Dugway and the contractor's facility, and the Army and contractor personnel would not be able to detect unauthorized access to the materials.

Management Comments on the Finding, and Our Response

Deputy Assistant Secretary of Defense for Chemical and Biological Defense Comments

The Deputy Assistant Secretary of Defense for Chemical and Biological Defense stated that the finding did not substantiate the conclusion that practices resulted in an increased risk that chemical surety material are improperly stored and accounted for at the sites the audit team visited. He acknowledged that the sites' standard operating procedures did not follow guidance in AR 50-6, but stated that the procedures had been reviewed extensively over the years through external and internal inspections and were found to adequately safeguard chemical agents from unauthorized access while reducing the hazard and risk to personnel. The Deputy Assistant Secretary stated that although the duties of the accountable officer and the primary custodian were not segregated at one site, the presence of a third-party witness was sufficient to preclude one person from performing the functions of agent receipt, shipment, and inventory.

[28] Engineering controls refer to the device, room, or structure immediately surrounding the chemical agent source that provides primary protection to workers from the hazard. Examples include, but are not limited to, hoods, glove boxes, or rooms under negative pressure relative to the adjacent room.

Our Response

We maintain that the evidence and the finding support the conclusion that the Army is at an increased risk that chemical surety materials are improperly stored and accounted for at the sites visited. In the report, we identified multiple instances of noncompliance with DoD Instruction 5210.65 and AR 50-6 with regard to the inventory method and inventory discrepancy reporting. Furthermore, we disagree that the presence of a third-party witness or inventory officer to validate the physical inventory adequately mitigates the risk associated with not segregating the accountable officer and primary agent custodian duties. Although having a third-party witness or inventory officer present during the inventory is a good practice, the inventory process is not the only time that recordkeeping errors or theft could occur. For example, because a single person is responsible for requesting chemical agents and recording the amount received in the inventory records, there are insufficient controls in place and segregation of duty to ensure that the actual amount of chemical agent requested and received matches the amount that is recorded in inventory.

Department of the Army, Deputy Chief of Staff, G-3/5/7 Comments

The Department of the Army, Deputy Chief of Staff, G-3/5/7, did not agree that the Army is at increased risk of inappropriately accounting for chemical surety material due to loss, error, or fraud. According to the Deputy Chief of Staff, the use of tamper-evident sealed secondary containers is an acceptable practice that enhances safety and security of physical inventories.

Our Response

In response to the Deputy Chief of Staff's comments, we revised the report from stating that the "Army is at increased risk of inappropriately accounting for chemical surety material due to loss, error, or fraud" to the "Army is at increased risk of improper storage and accountability of chemical surety materials." We also added a statement to acknowledge that we did not identify instances of fraud or theft during the audit. With respect to the use of tamper-evident sealed containers, we do not comment whether Army's use is an acceptable practice. However, we identified that the type of secondary containers used at the sites we visited varied because DoD and Army guidance does not establish minimum specifications for secondary containers and tamper-evident seals. As stated in the report, an official from the Office of the Deputy Secretary of Defense for Chemical and Biological Defense stated that re-sealable plastic containers and tape (as we observed in use at the contractor's facility) were not the correct materials to use for secondary containers.

Inspector General, Department of the Army Comments

The Army Inspector General did not agree with the finding, stating that inspectors from his office consistently follow Army and Office of the Secretary of Defense guidance. He added that Army and Office of the Secretary of Defense proponents provided a written explanation that the Army inventory inspection process is consistent with the regulatory proponent's intent.

Our Response

We acknowledge in the report that the proponents of DoD Instruction 5210.65 agreed with the practice of conducting inventory by sealed secondary container. However, the inspectors from the Department of the Army Office of the Inspector General did not conduct their inventory inspections consistent with AR 50-6, which specifically states to "conduct a 100-percent physical inventory of all accountable chemicals, by primary container, at least semi-annually (June and December each calendar year)." AR 50-6 was revised to require inventory by primary container in 2008, which was 9 years ago. At the sites we visited, the Army could not provide any evidence that the inspectors had observed an inventory by primary container since 2008.

Commanding General, U.S. Army Materiel Command Comments

The Principal Deputy Chief of Staff for Operations and Logistics, G3/4, responding for the Commanding General, U.S. Army Materiel Command, stated that analysis performed by the U.S. Army Materiel Command and Pueblo Chemical Depot indicated that erroneous suppositions and conclusions were made (in the report) based on assumptions that individual instances of noncompliance placed agents and munitions at risk.

Our Response

In the report, we identified multiple instances of noncompliance with DoD Instruction 5210.65 and AR 50-6 with regard to the inventory method and inventory discrepancy reporting. We also identified a lack of segregation of duties at one site visited. Any one of those instances is sufficient to increase the risk that chemical surety materials are not properly accounted for and stored.

Commanding General, U.S. Army Test and Evaluation Command Comments

The Commanding General, U.S. Army Test and Evaluation Command, agreed with one element he stated was a minor administrative error, did not negatively impact surety and, was corrected during the audit. The Commanding General disagreed with three elements of the finding, stating that the Army Test and Evaluation Command is in compliance with governing Army Regulations and DoD Instructions, which was validated by past inspections, and that at no time was there a compromise to chemical surety material.

Our Response

The comments provided by the Commanding General, U.S. Army Test and Evaluation Command, did not provide specifics on the finding elements with which he agreed or did not agree. However, he indicates that the three elements he did not agree with were associated with Dugway's compliance with DoD Instruction 5210.65 and AR 50-6 during inspections, and that at no time was there a compromise to chemical surety materials. We do not state in the report that there was a compromise to chemical surety materials. Instead, we discuss the increased risk of recordkeeping errors or theft. Furthermore, we disagree that Dugway complied with DoD Instruction 5210.65 and AR 50-6, as we identify in the report specific instances of noncompliance to include the inventory method and inventory discrepancy reporting.

Commander, Dugway Proving Ground Comments

The Commander, Dugway Proving Ground, partially agreed with the finding stating that chemical surety material handlers, primary agent custodians, and accountable officers follow DoD and Army guidance for access control, storage, and accountability. The Commander stated that Dugway's compliance with existing policy for chemical surety material was validated through memorandums from the Deputy Assistant Secretary of Defense for Chemical and Biological Defense and the Department of the Army in December 2016. He added that Dugway's inventory practices have always exceeded the intent of DoD and Army policies, incorporating sufficient rigor to ensure 100 percent accountability, and are in keeping with the "Cardinal Principle"[29] of safe handling of toxic materials to limit unnecessary exposure to their people. He also stated that consolidating the responsibilities of the accountable officer and primary agent custodian was in full compliance with

[29] According to Department of the Army Pamphlet 385-61 "Toxic Chemical Agent Safety Standards," November 13, 2012, the cardinal principle for an operation involving chemical agents or munitions is to limit the potential exposure to a minimum number of personnel, for a minimum period of time, to a minimum amount of the chemical agent consistent with safe and efficient operations. This includes prohibiting concurrent, unrelated work within the same work area.

AR 50-6. He added that the presence of a disinterested third-party witness or inventory officer during physical inventories, who validates the physical inventory report, provides alternate control measures consistent with the GAO report, and effectively addresses the risk of management override.

Our Response

We maintain that the finding substantiates the conclusion that the Army is at an increased risk that chemical surety material are improperly stored and accounted for at the sites visited. In the report, we identified multiple instances of noncompliance with DoD Instruction 5210.65 and AR 50-6 with regard to the inventory method and inventory discrepancy reporting. Furthermore, we do not agree that the presence of a third-party witness or inventory officer to validate the physical inventory adequately mitigates the risk associated with not segregating the accountable officer and primary agent custodian duties. Although having a third-party witness or inventory officer present during the inventory is a good practice, the inventory process is not the only time that recordkeeping errors or theft could occur. For example, because a single person is responsible for requesting chemical agents and then recording the amount received in the inventory records, there are insufficient separation of controls in place to ensure that the actual amount of chemical agent requested and received is the same amount that is recorded in inventory.

Commander, Pueblo Chemical Depot Comments

The Commander, Pueblo Chemical Depot, did not agree that the Army needs to improve controls over chemical surety materials. He stated that, as noted in the report, officials at the Pueblo Chemical Depot properly implemented accountability controls such as inventory management and documenting the destruction of the chemical munition stockpile. In addition, the Commander stated that he does not agree with some of the conclusions based on the auditors' interpretation of both DoD and Department of the Army guidance.

Our Response

We acknowledge in the report that Pueblo Chemical Depot officials properly implemented controls over chemical surety materials. However, in the report, we identify multiple incidents of noncompliance with DoD 5210.65 and AR 50-6, at Dugway and the contractor, such as not conducting a 100-percent inventory by primary container, or properly reporting inventory discrepancies that we believe provides adequate support for the report conclusions. Furthermore, the report's conclusions were not based on interpretation of DoD and Department of Army guidance, but on actual requirements contained in that guidance.

Recommendations, Management Comments, and Our Response

Recommendation A.1

We recommend that the Deputy Assistant Secretary of Defense for Chemical and Biological Defense revise DoD Instruction 5210.65 to define acceptable inventory practices and to provide guidance on appropriate segregation of duties.

Deputy Assistant Secretary of Defense for Chemical and Biological Defense Comments

The Deputy Assistant Secretary of Defense for Chemical and Biological Defense partially agreed stating that he published a memorandum on December 5, 2016, to clarify that DoD Instruction 5210.65 does not preclude the grouping of individual containers in a sealed, tamper-evident secondary container. He also stated that his office is working to develop more detailed storage and inventory guidance as part of the DoD Instruction 5210.65 revision and review process. He stated that the guidance will include a requirement for a baseline physical inventory of primary containers and subsequent periodic inventories. However, the Deputy Assistant Secretary of Defense disagreed with providing guidance on the appropriate segregation of duties stating that DoD Instruction 5210.65 was silent on the requirement but AR 50-6 required the presence of a third-party witness or inventory officer during physical inventories, who validated the physical inventory report. The Deputy Assistant Secretary stated that the practice is consistent with the GAO Report 14-704, "Standards for Internal Control in the Federal Government," September 2014, which was cited in the report as the basis for the practice. He further stated that the GAO report defines segregation of duties as a way to mitigate the risk of management override of existing controls, but the report also supports alternative control measures. The Deputy Assistant Secretary stated that requiring a third-party witness or inventory officer during physical inspections effectively addresses the management control risk.

Our Response

The Deputy Assistant Secretary of Defense for Chemical and Biological Defense partially addressed the specifics of the recommendation; therefore, the recommendation remains unresolved. Although the December 5, 2016, memorandum allows organizations to group primary containers in a sealed, tamper-evident secondary container, the memorandum does not describe minimum standards for a secondary container or the types of seals required. With regard to the segregation of duties, we do not agree that a third-party witness to the

inventory is sufficient to mitigate the risk of management override, as there are opportunities for recordkeeping errors or theft that would not be identified during the inventory process. For example, because a single person is responsible for requesting chemical agents and then recording the amount received in the inventory records, there are insufficient controls in place to ensure that the actual amount of chemical agent requested and received is the same amount recorded in inventory. The Deputy Assistant Secretary of Defense for Chemical and Biological Defense should specify the minimum standards for a secondary container and the types of seals required and how the duties of the primary agent custodian and the accountable officer will be segregated.

Recommendation A.2

We recommend that the Headquarters Department of the Army, Deputy Chief of Staff, G-3/5/7, coordinate with the Deputy Assistant Secretary of Defense for Chemical and Biological Defense to:

a. Provide guidance on appropriate segregation of duties.

Department of the Army, Deputy Chief of Staff, G-3/5/7 Comments

The Department of the Army, Deputy Chief of Staff, G-3/5/7, did not agree stating that GAO-14-704G, "Standards for Internal Control in the Federal Government," September 2014, supports alternative control measures to address risk when segregation of duties is not practical. The Deputy Chief of Staff stated that the AR 50-6 requirement for the presence of a disinterested third-party witness or inventory officer during physical inventories implements an alternate control measure consistent with the GAO publication.

Our Response

The Department of the Army, Deputy Chief of Staff, G-3/5/7, did not address all specifics of the recommendation; therefore, the recommendation is unresolved. Combining the duties of the accountable officer and primary agent custodian does not strengthen the control environment or reduce the risk of error. Even with a disinterested third party or inventory officer present at chemical agent inventories, one person would still be responsible for storing, requesting, receiving, issuing, and maintaining the system of records for chemical agents. Additionally, AR 50-6 provides specific duties for the accountable officer that involves overseeing the work of the primary agent custodian. If those duties are combined, there is no oversight, increasing the risk of recordkeeping error or theft. The Deputy Chief of Staff should specify how the duties of the primary agent custodian and the accountable officer will be segregated.

b. Revise AR 50-6 to define acceptable inventory practices for Army and contractor facilities in possession of chemical surety materials.

Department of the Army, Deputy Chief of Staff, G-3/5/7 Comments

The Department of the Army, Deputy Chief of Staff, G-3/5/7, agreed, stating that the Deputy Assistant Secretary of Defense for Chemical and Biological Defense Programs published a memorandum, "Grouping of Chemical Containers for Storage and Inventory," December 5, 2016, which confirmed support and clarified procedures for the grouping of primary containers into sealed tamper-evident containers for storage and inventory purposes. He stated that the next revision to AR 50-6 will incorporate the guidance and procedures in the memorandum and more detailed guidance developed in coordination with the Assistant Secretary of Defense (Nuclear, Chemical, and Biological).

Our Response

Comments from the Department of the Army, Deputy Chief of Staff, G-3/5/7, addressed all specifics of the recommendation; therefore, the recommendation is resolved. We will close the recommendation when the Deputy Chief of Staff provides, and we review, the revised AR 50-6 that includes acceptable inventory practices for Army and contractor facilities in possession of chemical surety materials.

Recommendation A.3

We recommend that the Commanding General, U.S. Army Materiel Command:

a. Require chemical surety material custodians who are not performing semiannual inventories in accordance with AR 50-6 to perform a 100-percent physical inventory of chemical agents, by primary container to establish a baseline of the chemical agent inventory prior to implementing any alternate inventory processes defined as a result of Recommendations A.1 and A.2.

b. Upon completion of Recommendations A.1 and A.2, ensure the contractor's standard operating procedures are updated to include revised inventory requirements.

Commanding General, U.S. Army Materiel Command Comments

The Principal Deputy Chief of Staff for Operations and Logistics, G-3/4, responding for the Commanding General, U.S. Army Materiel Command, agreed stating that the U.S. Army Materiel Command is consolidating management of all contractor-owned contractor-operated chemical agent laboratories under the U.S. Army Materiel Command G-3/4 Surety Division and the Army Provisioning Manager. The Army Provisioning[30] Agreement will include an appendix specifically addressing inventory and accountability requirements consistent with the Deputy Assistant Secretary of Defense for Chemical and Biological Defense, memorandum "Grouping of Chemical Agent Containers for Storage and Inventory," December 5, 2016, and any updates to DoD and Army guidance.[31]

Our Response

The Principal Deputy Chief of Staff addressed all specifics of the recommendations; therefore, the recommendations are resolved. We will close Recommendation A.3.a when the Principal Deputy Chief of Staff provides, and we review, the appendix addressing inventory and accountability requirements for consistency with the Deputy Assistant Secretary of Defense for Chemical and Biological Defense memorandum. We will close Recommendation A.3.b when we verify that the contractor standard operating procedures have been updated to include the revised inventory requirements.

Recommendation A.4

We recommend that the U.S. Army Inspector General update chemical surety inspections to align with DoD Instruction 5210.65 and AR 50-6.

U.S. Army Inspector General Comments

The Army Inspector General disagreed, stating his inspectors consistently follow guidance from the Army and the Office of the Secretary of Defense regulatory proponents. He added that the Army and Office of the Secretary of Defense proponents provided his office with a written follow-up indicating that the Department of the Army Office of the Inspector General inventory

[30] According to AR 700-18, "Provisioning of U.S. Army Equipment," September 20, 2009, provisioning is a management process for determining and acquiring the range and quantity of support items necessary to operate and maintain an end item of materiel for an initial period of service.

[31] In accordance with DoD Instruction 5210.65, DoD Components, Non-DoD U.S. Government agencies, state, local, or private entities may enter into a provisioning agreement with the Army Provisioning Manager to procure chemical agents for work to be conducted at an Army laboratory or Army-certified, contractor-owned, contractor-operated laboratory.

inspection processes are consistent with their intent. The Army Inspector General stated that if written standards by the DoD and the Army change, he will modify the inspection methodology to remain consistent with the regulatory proponent's intent.

Our Response

Although the Army Inspector General disagreed, modifying the inspection methodology in response to changes in the DoD and Army standards will meet all specifics of the recommendation; therefore, the recommendation is resolved. We will close the recommendation when the Army Inspector General provides us with the updated inspection methodology reflecting revisions to the DoD Instruction 5210.65 and AR 50-6 guidance made in response to Recommendations A.1. and A.2.

Recommendation A.5

We recommend that the Commander, Dugway Proving Ground:

a. Require chemical surety material custodians who are not performing semiannual inventories in accordance with AR 50-6 to perform a 100-percent physical inventory of chemical agents, by primary container to establish a baseline of the chemical agent inventory prior to implementing any alternate inventory processes defined as a result of Recommendations A.1 and A.2.

Commander, Dugway Proving Ground Comments

The Commander, Dugway Proving Ground, agreed, stating that Dugway completed a 100-percent physical inventory of chemical agent by primary container in June 2016, which re-established the chemical agent inventory baseline. He added that Dugway completed a second 100-percent inventory by primary container in December 2016 with no discrepancies.

Our Response

The Commander, Dugway Proving Ground, addressed all specifics of the recommendation; therefore, the recommendation is resolved. We will close the recommendation when the Commander provides the results of the 100-percent inventories conducted in June and December 2016.

b. Upon completion of Recommendations A.1 and A.2, update Dugway Proving Ground standing operating procedure, DP-0000-L-651, "Receipt, Storage, Inventory, and Issue of Chemical Surety Materials/Neat Agents," to ensure compliance with updated inventory requirements.

Commander, Dugway Proving Ground Comments

The Commander, Dugway Proving Ground, agreed, stating that Dugway will update the DP-0000-L-651 standing operating procedure upon receipt of DoD Instruction 5210.65 and Army Regulation 50-6 revisions.

Our Response

The Commander, Dugway Proving Ground, addressed all specifics of the recommendation; therefore, the recommendation is resolved. We will close the recommendation when we verify that the DP-0000-L-651 standing operating procedure has been updated to reflect the DoD Instruction 5210.65 and AR 50-6 revisions

c. Provide refresher training on reporting and resolving inventory discrepancies to all personnel with chemical agent accountability duties.

Commander, Dugway Proving Ground Comments

The Commander, Dugway Proving Ground, agreed, stating that Dugway conducted on-the-spot corrections with the inventory team, held immediate training with all other agent handlers, and held refresher training on January 18, 2017. Furthermore, the Commander stated that Dugway will enhance annual refresher training on reporting and resolving inventory discrepancies.

Our Response

The Commander, Dugway Proving Ground, addressed all specifics of the recommendation; therefore, the recommendation is resolved. We will close the recommendation when the Commander provides documentation verifying that all personnel with chemical agent accountability duties received refresher training.

d. Ensure segregation of duties is maintained over the accountability of chemical surety material inventory in accordance with Recommendations A.1 and A.2.a.

Commander, Dugway Proving Ground Comments

The Commander, Dugway Proving Ground, disagreed, stating that Dugway complied with the segregation of duties requirement as stated in AR 50-6, and that separating the duties of the accountable officer and the primary agent custodian does not achieve the report recommendation. Specifically, the primary agent custodian can still authorize, process, record, and review transactions because those duties are not assigned to the accountable officer. The objective that "no one individual controls all these aspects" is achieved through the disinterested observer to the physical inventory required by AR 50-6.

Our Response

The Commander, Dugway Proving Ground, did not address the specifics of the recommendation; therefore, the recommendation is unresolved. The same person should not have the responsibilities of both the accountable officer and primary agent custodian. At Dugway, because a single person is responsible for requesting chemical agents and then recording the amount received in the inventory records, there are insufficient controls in place to ensure that the actual amount of chemical agent requested and received is the same amount recorded in inventory. Therefore, we request that the Commander, Dugway Proving Ground, provide additional comments on the segregation of duties for the primary agent custodian and the accountable officer.

Finding B

Chemical Personnel Reliability Program Requirements Were Inconsistently Implemented

Personnel at Dugway, the contractor, and Pueblo did not consistently implement their respective CPRP requirements. Specifically, for the 84 nonstatistically sampled personnel we reviewed:

- certifying officials did not always report prior drug use to reviewing officials before certifying individuals into CPRP,
- competent medical authorities did not always provide potentially disqualifying information (PDI)[32] to certifying officials,
- individuals certified for the CPRP did not always self-report PDI in a timely manner,
- a certifying official at Pueblo did not properly refer an individual for medical evaluation after an alcohol-related incident, and
- officials did not always conduct personnel security investigations in a timely manner.

CPRP requirements were inconsistently implemented because chemical surety officers did not always provide effective oversight to ensure compliance. By not implementing the CPRP in accordance with AR 50-6, Pueblo, the contractor, and Dugway granted access to 22 of the 84 nonstatistically sampled personnel without properly determining whether these personnel met or continued to meet the suitability and reliability standards of the CPRP. As a result, there was increased risk that those locations would not meet the purpose of the Army chemical surety program as stated in AR 50-6; which is to ensure that chemical agent operations are conducted in a safe, secure, and reliable manner.

[32] According to AR 50-6, PDI is any information that may cast doubt about the person's ability or reliability to perform the duties involving chemical agents. PDI includes, but is not limited to, information about a person's physical, mental, or emotional status; conduct; or character, whether on or off-duty.

Personnel Did Not Consistently Implement CPRP Procedures

CPRP officials and CPRP-certified personnel at Dugway, the contractor, and Pueblo did not consistently implement CPRP requirements.[33] Table 1 shows 26 deficiencies related to the CPRP for 22 of the 84 individuals we sampled. See Appendix A for details on our sample selection.

Table 1. Number of Deficiencies Identified from the Sampled Individuals in the CPRP

Initial Screening and Continuous Evaluation Issue Description	Pueblo	The Contractor	Dugway	Total
Certifying officials did not always report prior drug use to reviewing officials before certifying individuals into CPRP	0	1	1	2
Competent medical authorities did not always provide PDI to certifying officials	0	5	0	5
Individual did not properly self-report PDI	3	3	5	11
Certifying official did not refer individual for medical evaluation after alcohol-related incident	1	0	0	1
Security Manager did not always conduct personnel security investigations timely	0	1	6	7
Total deficiencies identified	**4**	**10**	**12**	**26**

Certifying Officials Did Not Always Report Prior Drug Use to Reviewing Officials Before Certifying Individuals into CPRP

Officials at the contractor and Dugway did not always report individuals' prior drug use to reviewing officials when determining suitability for CPRP duties. Specifically, two individuals disclosed illicit drug use during their initial interview but that information was not reported to or considered by the reviewing official until after the individuals were certified into the CPRP. For the individual at Dugway, reviewing officials did not properly review the prior drug use of an individual who reported marijuana use during their initial interview on March 7, 2011. The individual was CPRP-certified on November 17, 2011; however, the reviewing official did not approve the PDI until January 14, 2014, more than 2 years after certification. According to AR 50-6, in the case of previous drug or

[33] CPRP officials refers to the individuals involved in determining the reliability and suitability of CPRP personnel, such as the certifying official, reviewing official, competent medical authority, and security managers. CPRP personnel include the individuals certified into CPRP duty positions, including, but not limited to, those that require routine access to chemical surety materials, access control over chemical surety materials, or operating equipment involved in moving chemical agents.

substance abuse, the certifying official's documentation of the PDI must include an approval signed by the reviewing official. If the reviewing official does not provide the approval, the individual will be disqualified from the CPRP.

Competent Medical Authorities Did Not Always Provide PDI to Certifying Officials

The competent medical authorities at the contractor did not report PDI to the certifying officials for five individuals. AR 50-6 states that certifying officials should make a judgement on reliability and suitability of an individual, considering both affirmative qualifying factors and potentially disqualifying factors. Suitability and reliability standards in the Regulation state that individuals will be mentally alert, mentally and emotionally stable, trustworthy, physically competent and free of unstable medical conditions. Officials are also required to consider any significant mental or physical condition, medication usage, or medical treatment that may have an adverse impact on performing CPRP duties such as "an altered state of consciousness" or impaired judgment or concentration. For example, at the contractor, the competent medical authority did not provide the certifying official with PDI such as injuries, emergency room visits, and stress-related concerns.

CPRP-Certified Personnel Did Not Always Self-Report PDI as Required

At Pueblo, the contractor and Dugway, we identified 11 CPRP-certified individuals who did not self-report medical PDI to their respective competent medical authorities in a timely manner. According to AR 50-6, CPRP-certified individuals are required to report to the competent medical authority any medical conditions or treatments that could impact performance, reliability, or safety while performing CPRP duties.

For example, a security guard at Pueblo reported a complete loss of hearing to the competent medical authority on July 14, 2014, although the guard first noticed the hearing loss on June 25, 2014. Hearing loss may negatively impact the individual's ability to perform their CPRP duties and should be reported to officials. The competent medical authority noted in the guard's medical file that he continued to perform CPRP guard duties despite the hearing loss. The competent medical authority also indicated that the guard had reported the hearing loss to his supervisor, who was also the certifying official. However, the certifying official stated that the individual never reported the PDI.

A security guard at Pueblo reported complete hearing loss on July 14, 2014, although the guard first noticed the hearing loss on June 25, 2014.

Additionally, nine other CPRP personnel did not report injuries and impairments in a timely manner. These injuries and impairments included conditions such as a pinched nerve in the shoulder, forearm surgery, and flu-like symptoms experienced over multiple days. Finally, one individual did not report exposure to the chemical phosphorous oxychloride until months after the exposure occurred.

A U.S. Army Medical Command memorandum[34] requires personnel to report the conditions to their supervisor, the competent medical authority, or the certifying official before their next duty shift, so the certifying official can determine whether or not to place the individual on a temporary medical restriction from duty. Instead, the individuals only reported to the competent medical authority after continuing to work for several weeks or in other cases after the medical conditions had resolved entirely.

Certifying Official at Pueblo Did Not Properly Refer Individual for Medical Evaluation after Alcohol-Related Incident

A certifying official at Pueblo did not properly refer an individual for a medical evaluation after an alcohol-related incident was reported. AR 50-6 states that alcohol-related incidents[35] require the certifying official to evaluate the circumstances of the incident and request a medical evaluation. The results of the medical evaluation determine how the certifying official should proceed. Specifically, if the medical evaluation indicates a diagnosis of alcohol dependency, the certifying official will automatically disqualify the individual from CPRP. If the individual is diagnosed as currently "abusing alcohol" but not alcohol dependent, the certifying official will suspend processing until a rehabilitation or treatment program has been completed and the individual is reevaluated. If the medical evaluation results in no diagnosis of current alcohol dependency/abuse, the certifying official then determines the individual's reliability based the results of any investigations that may be conducted, medical evaluations, and extenuating circumstances.

The abovementioned individual's alcohol-related incident was classified as "driving while ability impaired." The incident took place on August 29, 2014, and was reported to the certifying official on September 3, 2014. At the time the incident was reported, the individual was undergoing initial CPRP screening. Once the incident was reported, the certifying official should have referred the individual

[34] Headquarters, U.S. Army Medical Command, "Revised Medical Policy Guidance for Individuals Performing Biological Personnel Reliability Program (BPRP) and/or Chemical Personnel Reliability Program (CPRP) Duties," November 13, 2009.

[35] According to AR 50-6, an alcohol-related incident is defined as any substandard behavior or performance in which the consumption of alcohol by the individual is a contributing factor as determined by the certifying official with consultation from the competent medical authority (such as intoxicated driving, domestic disturbances, assault, disorderly conduct, personal injury, failure to go to prescribed alcohol abuse counseling, or voluntary consumption of alcohol by an individual previously diagnosed as alcohol-dependent, underage drinking).

The certifying official allowed the CPRP screening process to continue for 5 months ... before the individual underwent the special medical evaluation for the incident.

to the competent medical authority for a medical evaluation and halted the CPRP certification process. However, as shown below, CPRP officials continued to process the individual without the required medical evaluation. The certifying official allowed the CPRP screening process to continue for 5 months (from September 3, 2014, through February 6, 2015) before the individual underwent the special medical evaluation for the incident.

August 29, 2014 – The individual was charged with driving while ability impaired.

September 3, 2014 – The individual reported the alcohol-related incident to the certifying official.

November 26, 2014 – The personnel officer and security manager continued the CPRP screening process, including completing and certifying the required personnel records review and completing the background investigation.

December 9, 2014 – The competent medical authority certified the individual's second drug test.[36]

January 22, 2015 – The competent medical authority met with the individual and recorded the alcohol-related incident on a U.S. Army Medical Command Form 763.

January 27, 2015 – The competent medical authority noted that the individual required an automatic referral to the Evans Army Health Clinic for evaluation due to the alcohol-related incident.

February 3, 2015 – The certifying official submitted a memorandum to the competent medical authority requesting a special medical evaluation related to the alcohol-related incident.

February 6, 2015 – An Evans Army Health Clinic doctor performed the substance abuse evaluation and determined the individual was not alcohol dependent.

February 10, 2015 – The competent medical authority conducted a followup visit after the special medical evaluation and concluded there was no impact to the individual's reliability.

February 17, 2015 – The individual was certified into CPRP after the competent medical authority completed the alcohol dependency evaluation.

[36] AR 50-6 requires all CPRP candidates to complete drug testing within 6 months prior to initial certification into the CPRP. This individual's initial drug test had expired.

Security Investigations Were Not Always Conducted Timely

The security manager at Dugway and the chemical agent manager at the contractor did not ensure personnel security investigations (PSI) for seven CPRP personnel were conducted timely. AR 50-6 states that all personnel assigned to CPRP duties are required to have a favorably adjudicated (cleared) personnel review every 5 years, and a request for a personnel review will be submitted before the current PSI expires. If a request is not submitted before the expiration of the PSI, the individual will be suspended until the personnel review request is submitted.

At Dugway, the security manager did not notify three individuals to submit their PSI request until after their current PSI expired. The certifying official did not suspend these three individuals. One individual resubmitted their PSI within two weeks of the current PSI expiring. The other two individuals resubmitted their PSIs 2 months after their current PSI expired.

On May 12, 2016, we identified one individual at the contractor who continued performing CPRP duties for over 23 months with an expired PSI. The individual had a PSI that closed on June 11, 2009, and expired June 11, 2014; however, there was no documentation that a re-investigation had occurred. When we informed the chemical agent manager of the expired PSI, the manager worked with the certifying official to immediately suspend the individual. The contractor could not provide documentation to show that the individual was ever notified that their PSI was expiring.

We identified one individual at the contractor who continued performing CPRP duties for over 23 months with an expired PSI.

CPRP Oversight Needs Improvement

CPRP requirements were inconsistently implemented because chemical surety officers did not provide effective oversight to ensure compliance. The commanders at Pueblo and Dugway and the director at the contractor each appointed a chemical surety officer[37] who was responsible for monitoring and evaluating the chemical surety program (including personnel reliability aspects of the program). We determined that each chemical surety officer was assigned the responsibility of overseeing their respective facility's chemical surety program. Specifically, these chemical surety officers were responsible for providing guidance and training to CPRP-certified personnel, reviewing the activities of CPRP officials, and responding to chemical surety audits and inspections. However, chemical surety officers

[37] At the contractor, the chemical agent manager performs the duties of the chemical surety officer as described in AR 50-6.

did not detect instances where CPRP officials and personnel did not properly implement CPRP guidance. Commanders of these facilities need to develop and implement additional controls to ensure that chemical surety officers provide effective oversight of compliance with CPRP requirements.

Access to Chemical Surety Materials Granted to Personnel Who May Not Meet Suitability and Reliability Standards

AR 50-6 states that the purpose of the CPRP is to provide commanders with a tool to make risk-based decisions and ensure individuals with access to chemical surety materials meet high standards of reliability. By not implementing the CPRP in accordance with AR 50-6, Pueblo, the contractor, and Dugway granted access to at least 22 personnel without properly determining whether these personnel met or continued to meet CPRP suitability and reliability standards. As a result, there was increased risk that those locations would not meet the purpose of the Army chemical surety program as stated in AR 50-6, which is to ensure that chemical agent operations are conducted in a safe, secure, and reliable manner.

Management Comments on the Finding and Our Response

Deputy Assistant Secretary of Defense for Chemical and Biological Defense Comments

The Deputy Assistant Secretary of Defense for Chemical and Biological Defense partially agreed with the finding but stated that the report did not substantiate the conclusion that the chemical agents and munitions were improperly safeguarded and that operations were not conducted in a safe, secure, and reliable manner. He stated that the report did not assess instances of noncompliance in relation to their significance or consider mitigating factors applied to the overall program. He stated that in many instances, site and higher headquarters-level internal control mechanisms caught the inconsistent application of requirements and corrected the situation.

Our Response

We maintain that the finding substantiates the conclusion that the chemical agents and munitions were improperly safeguarded and that operations were not conducted in a safe, secure and reliable manner. In the report, we identified multiple instances of noncompliance with AR 50-6 with respect to the CPRP. We considered mitigating actions and the seriousness of the instances of

noncompliance while preparing our report. However, we do not agree that the site or higher headquarters internal control mechanisms were sufficient to prevent the noncompliance with the CPRP that we identified during our site visits. We found no evidence that additional controls were implemented to prevent recurrence of the inconsistent application of CPRP requirements.

Department of the Army, Deputy Chief of Staff, G-3/5/7 Comments

The Department of the Army, Deputy Chief of Staff, G-3/5/7, did not agree that the "certifying official at Pueblo did not properly refer an individual for medical evaluation after alcohol-related incident." According to the Deputy Chief of Staff, the narrative and timeline identify that the certifying official properly implemented the requirements of AR 50-6. He stated that the requirement to suspend CPRP processing is applicable only when an individual is diagnosed as abusing alcohol; the suspension continues until the individual has completed the treatment regimen prescribed by the competent medical authority. The Deputy Chief of Staff added that because there was no diagnosis of alcohol abuse and no prescribed treatment regimen, there was no requirement to suspend CPRP certification.

Our Response

AR 50-6 requires the certifying official to suspend any individual in the CPRP who is involved in an alcohol-related incident, investigate the incident, and request a medical evaluation. At Pueblo, the individual was involved in an alcohol-related incident in August 2014. However, the certifying official did not suspend the individual from the screening process and the certifying official did not request the medical evaluation until five months after the incident.

Commanding General, U.S. Army Materiel Command Comments

The Principal Deputy Chief of Staff for Operations and Logistics, G3/4, responding for the Commanding General, U.S. Army Materiel Command, disagreed that chemical agents and munitions were not properly safeguarded and that operations were not conducted in a safe, secure, and reliable manner. He added that analysis from the U.S. Army Materiel Command and Pueblo Chemical Depot indicated erroneous suppositions and conclusions were made based on assumptions that individual instances of noncompliance placed agents and munitions at risk.

Our Response

We maintain that the finding substantiates the conclusion that the chemical agents and munitions were improperly safeguarded and that operations were not conducted in a safe, secure, and reliable manner. In the report, we identify multiple instances of noncompliance with AR 50-6 with respect to the CPRP. Any one of those instances is sufficient to increase the risk that chemical surety materials are not properly stored and accounted for at Dugway and the contractor.

Commanding General, U.S. Army Test and Evaluation Command Comments

The Commanding General, U.S. Army Test and Evaluation Command, disagreed with the finding that chemical surety officers did not always provide effective oversight to ensure compliance. However, the Commanding General agreed that there were individual lapses in reporting timelines and that the finding related to CPRP were self-identified and resolved before the DoD OIG audit. The Commanding General also stated that he recognized that the U.S. Army Test and Evaluation Command can improve its awareness of the roles and responsibilities related to the CPRP.

Our Response

In the report, we cite examples from Dugway and other sites we visited where chemical surety officers did not comply with DoD Instruction 5210.65 or AR 50-6 when overseeing the CPRP. Although the examples occurred before our site visit, they were not resolved consistent with AR 50-6. For example, the reviewing official approved PDI about an individual's prior drug use 2 years after the individual was entered into the CPRP. AR 50-6 required the reviewing official to approve the PDI before the individual was entered into the CPRP.

Commander, Dugway Proving Ground Comments

The Commander, Dugway Proving Ground, stated that the DoD OIG team did not identify any deficiency that was not previously identified and resolved through internal controls and oversight. However, the Commander acknowledged that Dugway Proving Ground can improve the awareness of the roles and responsibilities related to the CPRP. The Commander added that there was no evidence that chemical surety materials at Dugway or operations were ever at risk.

Our Response

We agree that the examples in the report were identified and resolved prior to the DoD OIG visit to Dugway; however, additional internal controls were not implemented to prevent a recurrence. The examples show that certifying officials did not administer the CPRP in compliance with AR 50-6. For example, AR 50-6 required the information about the individual's prior drug use be provided to the reviewing official for approval before the individual was certified into the CPRP. The information was not approved by the reviewing official for more than 2 years. During that time, the certifying official entered the individual into the CPRP, which is a violation of AR 50-6.

Commander, Pueblo Chemical Depot Comments

The Commander, Pueblo Chemical Depot did not agree with the underlying premise of the report. The Commander stated that it is important to note that all four individuals identified in the report had been identified through the Pueblo Chemical Depot's established internal controls and that they did not have direct access to chemical surety materials. He added that as such, there was no increased risk to the chemical surety material stored at the Pueblo Chemical Depot and that at no time were the individuals' reliability or judgement a concern to the certifying officials involved.

Our Response

We acknowledge in the report that the four individuals self-reported the PDI. However, according to AR 50-6, the certifying official was required to request a medical evaluation for the individual with the alcohol-related incident. For the three other individuals, the competent medical authority was required to provide sufficient information to the certifying official so that the certifying official could decide whether the individuals could continue performing CPRP duties. The Pueblo Chemical Depot's internal controls did not identify or correct these instances of noncompliance with AR 50-6.

Recommendations, Management Comments, and Our Response

Recommendation B.1

We recommend that the Commanding General, U.S. Army Materiel Command, require the U.S. Army Materiel Command Chemical Surety officer to perform periodic reviews of the contractor certifying official files to ensure chemical surety guidance is being followed.

Commanding General, U.S. Army Materiel Command Comments

The Principal Deputy Chief of Staff for Operations and Logistics, G-3/4, responding for the Commanding General, U.S. Army Materiel Command, agreed, stating that the contractor and all U.S. Army Materiel Command-assigned and supported surety sites are subject to a surety management review by the U.S. Army Materiel Command on a 24-month basis. The Principal Deputy Chief of Staff explained that upon full implementation of the Army Provisioning Agreement, the U.S. Army Materiel Command will conduct annual certifications of all contractor-owned, contractor-operated laboratories, including the contractor. He also explained the certifying official for all contractor-owned, contractor-operated laboratories will be a U.S. Army Materiel Command Surety Division member responsible for the administration of all reliability program files. Lastly, the Principal Deputy Chief of Staff explained that the contractor employee with the outdated investigation update did not work with surety material and had no reason to be enrolled in the reliability program.

Our Response

The Principal Deputy Chief of Staff for Operations and Logistics, G-3/4, addressed all specifics of the recommendation; therefore, the recommendation is resolved. With respect to the contractor employee with the outdated investigation, we disagree with the Principal Deputy Chief of Staff. The employee was on the entry control roster for the laboratory and had the combination for the locks in the laboratory. According to AR 50-6, the certifying official should have suspended the employee from the CPRP when the employee's investigation lapsed. We will close the recommendation when the Principal Deputy Chief of Staff provides the results of the contractor file review and the certification of the contractor laboratory.

Recommendation B.2

We recommend that the Commander, Dugway Proving Ground, develop and implement additional internal controls to ensure the chemical surety officer provides effective oversight of compliance.

Commander, Dugway Proving Ground Comments

The Commander, Dugway Proving Ground agreed, stating that Dugway is developing Surety Office reviews, including quarterly audits of the emergency response, medical, mission operations, safety, security, and surety management areas. The Commander also stated Dugway established an automated process to ensure personnel security investigations are submitted in a timely manner and will review and enhance training in the areas identified. In addition, Dugway has begun to revise Dugway Regulation 50-1, "Surety Operations," to include the additions and changes in internal controls and oversight and will publish the revised edition within 180 days of DoD Instruction 5210.65 and AR 50-6 revisions.

Our Response

The Commander, Dugway Proving Ground, addressed all specifics of the recommendation; therefore, the recommendation is resolved. We will close the recommendation when the Commander provides us the results of the Surety Office review and we verify that the revised Dugway Regulation 50-1 includes the additions and changes in internal controls and oversight.

Recommendation B.3

We recommend that the Commander, Pueblo Chemical Depot, develop and implement additional internal controls to ensure the chemical surety officer provides effective oversight of compliance.

Commander, Pueblo Chemical Depot Comments

The Commander, Pueblo Chemical Depot, neither agreed nor disagreed, stating that the Pueblo Chemical Depot already has internal controls in place, and conducts quarterly surety boards and provides training to certifying officials and CPRP enrollees. According to the Commander, the Pueblo Chemical Depot has implemented additional internal controls, including quarterly reviews of certifying official working files, to ensure all requirements are documented and maintained, and has updated the Chemical Surety Basic Course and Chemical Surety Refresher Course to identify specifics of self-reporting.

Our Response

The Commander, Pueblo Chemical Depot, addressed all specifics of the recommendation; therefore, the recommendation is resolved. We will close the recommendation when we verify that the internal control procedures have been updated to include quarterly reviews of certifying official working files and that personnel enrolled in the CPRP have attended the chemical surety basic and refresher courses.

Commanding General, U.S. Army Materiel Command Comments

Although not required to respond, the Principal Deputy Chief of Staff for Operations and Logistics, G-3/4, U.S. Army Materiel Command, agreed with the Commander, Pueblo Chemical Depot, stating that the Pueblo Chemical Depot conducts quarterly surety boards and certifying official training and that the Chemical Surety Office has implemented additional surety internal controls, including quarterly reviews of the certifying official files, to ensure compliance with requirements. The Principal Deputy Chief of Staff also stated that inspections conducted on February 27, 2017, and March 3, 2017, noted improvements in process, local historical program knowledge, file maintenance, and efficiencies in the records review process by the certifying official. Furthermore, the Principal Deputy Chief of Staff explained that the U.S. Army Materiel Command is drafting specific guidance to be included in U.S. Army Materiel Command Regulation 50-1 and the U.S. Army Materiel Command Surety Management Program, which limits enrollment of individuals into the CPRP.

Our Response

Comments from the Principal Deputy Chief of Staff for Operations and Logistics, G-3/4, addressed all specifics of the recommendation; therefore, the recommendation is resolved. We will close the recommendation when the Principal Deputy Chief of Staff provides, and we review, the revised U.S. Army Materiel Command Regulation 50-1 and U.S. Army Materiel Command Surety Management Program to verify the internal controls have been updated to include quarterly reviews of Certifying Official working files and that personnel enrolled in the CPRP have attended the chemical surety basic and refresher courses.

Appendix A

Scope and Methodology

We conducted this performance audit from November 2015 through March 2017 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We met with personnel from the Deputy Assistant Secretary of Defense for Chemical and Biological Defense; U.S. Army Materiel Command; and Chemical Materials Activity. We reviewed DoD policy and Army guidance. We also conducted site visits to Pueblo, a contractor, and Dugway to evaluate accountability and access controls over chemical surety materials. Specifically, we evaluated:

- inventory controls at Pueblo, the contractor, and Dugway, including reviewing inventory tracking controls at each site and reviewing samples of chemical surety items;
- physical security measures and access controls at Pueblo, the contractor, and Dugway to determine how access was granted; who had access to chemical surety sites; what physical security measures were in place, and whether they were sufficient;
- CPRP certifying official, security manager, and competent medical authority files at Pueblo, the contractor, and Dugway, including a sample of personnel in the CPRP at each site to ensure personnel with access to chemical surety material meet reliability standards; and
- disposal documentation for chemical agents at Pueblo and Deseret, including reviewing a sample of destruction certificates for the Explosive Destruction System at Pueblo and previous demilitarization operations at Deseret.

We observed a physical inventory of chemical agents stored at Pueblo, the contractor, and Dugway using a random nonstatistical sample. Specifically:

- 45,707 of 779,600 chemical weapons located in 6 out of 95 storage igloos at Pueblo;
- 41 of 534 chemical surety materials at Dugway; and
- 34 of 149 chemical surety materials at the contractor.

For Pueblo, we obtained a universe of 779,600 chemical surety materials contained in 95 storage buildings from the Chemical Agent Management Information Network that Pueblo uses to track the chemical weapons stockpile stored at its location. For Dugway, the universe of 534 chemical surety materials was extracted from the Cambridge Soft Inventory Ultra 11.0 System. At the contractor, the universe of 149 chemical agents was derived from hardcopy stock records used to account for their chemical surety materials.

We also analyzed a nonstatistical sample of 84 CPRP-certified individuals at Pueblo, Dugway, and the contractor. Specifically, we analyzed 40 of 180 CPRP files at Pueblo (5 of these 40 individuals were suspended at the time we selected the sample), 13 of 18 CPRP files at the contractor, and 31 of 102 CPRP files at Dugway. Furthermore, we reviewed a nonstatistical sample of 33 of 138 destruction certificates at Pueblo and 43 of 5,576 destruction certificates at Deseret. We used the Chemical Agent Management Information Network to identify the universe of destroyed chemical weapons at these facilities.

The contractor was provided the opportunity to review and comment on relevant portions of the draft report. Comments provided by the contractor were considered in preparing the final report.

Use of Computer-Processed Data

We used data from the Chemical Agent Management Information Network and CambridgeSoft Inventory Ultra to perform this audit. The data consisted of inventory quantities of chemical surety material and required no additional processing. To test the reliability of the data, we verified the quantities of chemical surety materials contained in the data to the quantities identified on the primary containers of the chemical surety materials. Based on our validation of the quantities listed on the containers, we concluded that the data were sufficiently reliable for assessing the conclusions on accountability at both Dugway and the contractor.

Use of Technical Assistance

We used the assistance of the DoD OIG Quantitative Methods Division to develop a nonstatistical sample to evaluate inventory accountability and the Chemical Personnel Reliability Program for Deseret, Dugway, the contractor, and Pueblo.

Prior Coverage

No prior coverage has been conducted on controls over chemical surety materials during the last 5 years.

Appendix B

Inventory Accountability and CPRP Personnel Responsibilities

Accountable Officers ensure chemical surety material is maintained under a system of records that provide an audit trail from acquisition or production, through use, destruction, or transfer. In addition, accountable officers draft and maintain facility-specific standard operating procedures for the inventory management and control of chemical surety materials. Accountable officers review and consolidate the inventories of accountable chemicals as well as prepare and forward a semiannual report for all accountable chemicals for inclusion in the DoD consolidated semiannual report.

Certifying Officials determine the reliability and suitability of CPRP-certified individuals. Certifying officials must maintain sufficient personal contact with subordinate CPRP personnel to permit continual evaluation of their performance and reliability. For Army contractor personnel, the Army contracting officer's representative designates the certifying official. The certifying official certifies that personnel being considered for assignment to chemical surety duties meet the requirements of the CPRP.

Chemical Surety Officers manage day-to-day operations and monitor and evaluate the chemical surety program. In addition, chemical surety officers act as the focal point for chemical surety matters. Chemical surety officers monitor the chemical safety, security, accident and incident response, inventory management, and personnel reliability to ensure those programs are receiving the necessary emphasis. Furthermore, chemical surety officers bring any apparent incidents or shortcomings to the attention of the commander or director and serve as a liaison with organizations that provide external support to the chemical surety mission.

Competent Medical Authorities are physicians, physician assistants, or nurse practitioners (military, civilian, or contractor) employed by or under contract or subcontract to the U.S. Government or a U.S. Government contractor. Competent medical authorities have been specifically trained for the position and are appointed in writing by the medical treatment facility commander (or contracting officer's representative). Competent medical authorities conduct clinical evaluations such as annual physicals and substance abuse screenings for purposes of the CPRP. Competent medical authorities also evaluate changes in health status (for example, medical conditions, treatments, and medications) for consideration by the certifying official when determining the continued suitability and reliability of CPRP personnel.

Disinterested Individuals are familiar with the inventory process but are not primary agent custodians or accountable officers. These individuals are present for quarterly inventories; assist agent custodians in quarterly inventory report preparation; are present when sealing and re-sealing a container during inventory; and sign inventory reports, checklists, and container-sealing operations.

Primary Agent Custodians store, request, receive, issue for use, destroy, or transfer accountable chemicals. The primary agent custodians maintain stock records of accountable chemicals by line item entry. Primary agent custodians are also responsible for conducting a 100-percent physical inventory of all accountable chemicals, by primary container, at least semiannually (June and December of each calendar year). Primary agent custodians reconcile each physical inventory with the stock record and prepare an inventory report that includes all transactions since the date of the previous physical inventory.

Reviewing Officials are the commanders or designated DoD military or civilian officials responsible for chemical surety operations or contracts at a level above (or overseeing) the certifying official. Reviewing officials monitor the CPRP and review any CPRP actions to qualify or disqualify an individual in CPRP.

Appendix C

Chemical Surety Material and Thresholds

The content for Table 2, Table 3, and Table 4 was derived from AR 50-6 Table 6-1, Table 6-2, and Table 6-3, respectively.

Table 2. List of Schedule 1 Chemicals From AR 50-6

No.	Type	A. Chemical Agents
(1)	G	O–Alkyl (≤C10, incl. Cycloalkyl) alkyl (Me, Et, n-Pr or i-Pr)-phosphonofluoridates for example Sarin; O–Isopropyl methylphosphonofluoridate Soman; O–Pinalcolyl methylphosphonofluoridate
(2)	G	O–Alkyl (≤C 10, incl. Cycloalkyl) N, N-dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidocyanidates for example Tabun: O–Ethyl N, N-dimethyl phosphoramidocyanidate
(3)	V	O–Alkyl (H or ≤C 10, incl. Cycloalkyl) S–2-dialkyl (Me, Et, n-Pr or i-Pr)-aminoethyl alkyl (Me, Et, n-Pr or I–Pr) phosphonothiolates and corresponding alkylated or protonated salts for example VX; O–Ethyl S–2-diisopropylaminoethyl methyl phosphonothiolate
(4)	H	Sulfur mustards 2–Chloroethylchloromethylsulfide Mustard gas; Bis(2-chloroethyl)sulfide Bis(2-chloroethylthio)methane Sesquimustard; 1,2 Bis(2-chloroethylthio)ethane 1,3–Bis(2-chloroethylthio)-n-propane 1,4–Bis(2-chloroethylthio)-n-butane 1,5–Bis(2-chloroethythio)-n-pentane Bis(2-chloroethylthiomethyl)ether T–Mustard: Bis(2-chloroethylthioethyl)ether
(5)	L	Lewisites Lewisite 1: 2–Chlorovinyldichlorarsine Lewisite 2: Bis(2-chlorovinyl)chloroarsine Lewisite 3: Tris(2-chlorovinyl)arsine
(6)	H	Nitrogen mustards HN1: Bis(2-chloroethyl)ethylamine HN2: Bis(2-chloroethyl)methlyamine HN3: Tris(2-chloroethyl)amine
No.	**Type**	**B. Prescursors**
(7)		Alkyl (Me, Et, n-Pr or i-Pr) phosophonyldifluorides for example DF; Methylphosphonyldifluoride
(8)		O–Alkyl (H or ≤ C 10, incl. Cycloalkyl) O–2-dialkyl (Me, Et, n-Pr or i-Pr)-aminoethyl alkyl (Me, Et, n-Pr or i-Pr) phosphonites and corresponding alkylated or protonated salts for example QL: O–Ethyl O–2-diisopropylaminoethyl methylphosphonite
(9)		Chlorosarin: O–Isopropyl methylphosphonochloridate
(10)		Chlorosoman: O–Pinacolyl methylphosphonochloridate

Table 3. Dilute Agent Thresholds

Agent[1]	Maximum Total Quantity[2]	Maximum Concentration
G-type	20.0 mg	2.0 mg/ml
V-type	10.0 mg	1.0 mg/ml
H-type	100.0 mg	10.0 mg/ml
L-type	50.0 mg	5.0 mg/ml

[1] Listed agents for each type are given in Table 1.

[2] Maximum amount of chemical agent in the solution for each primary container, not to exceed the concentration indicated.

Table 4. Neat (Full-Strength) Agent Thresholds

H-Type	L-Type	V-Type	G-Type
25.0	25.0	2.0	10.0

Note: Quantities listed in each column indicate the maximum aggregate quantity in milliliters for that type of agent.

Management Comments

Deputy Assistant Secretary of Defense for Chemical and Biological Defense

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
3050 DEFENSE PENTAGON
WASHINGTON, DC 20301-3050

NUCLEAR, CHEMICAL, AND
BIOLOGICAL DEFENSE PROGRAMS

APR 1 0 2016

MEMORANDUM FOR PROGRAM DIRECTOR FOR READINESS AND CYBER OPERATIONS, OFFICE OF THE INSPECTOR GENERAL

THROUGH: DIRECTOR, ACQUISITION RESOURCES AND ANALYSIS 4/10/16

SUBJECT: Response to Department of Defense Office of the Inspector General Draft Report "The Army Needs to Improve Controls Over Chemical Surety Materials" (Project No. D2016-D000RF-0053.000)

As requested, I am providing the consolidated responses to the findings and recommendations contained in the subject report. Specific responses that were requested from Army stakeholders are attached. I offer the comments below in reference to the two findings and Recommendation A.1, which was directed to my office. I also support the attached responses from the Army stakeholders. I also note that some of the information regarding the specific Department of Defense (DoD) contractor site discussed in your draft report may be properly considered company proprietary or business sensitive, and should be marked and handled accordingly.

Finding A:
Accountability/Oversight. Army and contractor personnel did not fully implement Army accountability controls over chemical surety materials because the site standard operating procedures contradict inventory requirements in Army Regulation (AR) 50-6. DoD and the Army do not define the minimum specifications for secondary containers and seals and do not provide guidance on appropriate segregation of duties over the accountability for chemical surety materials. Not fully implementing accountability controls and insufficient oversight and guidance increases the risk that chemical surety materials are improperly stored and accounted for at Dugway and one contractor site.

Response:
Partially concur. Concur that the acceptable uses of sealed secondary containers was not specified in policy. Non-concur that the findings in the DoD Office of the Inspector General (DoD OIG) report substantiate the conclusion that practices resulted in an increased risk that chemical surety materials are improperly stored and accounted for at those sites. Although the site standard operating procedures did not follow guidance in AR 50-6, the procedures have been reviewed extensively over the years through external and internal inspections and found to adequately safeguard the agent from unauthorized access while reducing the hazard and risk to personnel. Although duties of the accountable officer and the primary custodian were not segregated at one site, the presence of a third-party witness or inventory officer to validate the physical inventory precludes the risk of a single person being able to take all actions associated with agent receipt, shipment, and inventory. Further details are provided in the attached responses provided by the sites.

Deputy Assistant Secretary of Defense for Chemical and Biological Defense (cont'd)

Recommendation A.1:
A.1. The Deputy Assistant Secretary of Defense for Chemical and Biological Defense (DASD(CBD)) revise DoD Instruction (DoDI) 5210.65 to define acceptable inventory practices and to provide guidance on appropriate segregation of duties.

Response:

- Acceptable Inventory Practices: Concur. I published a memorandum (Grouping of Chemical Containers for Storage and Inventory, December 5, 2016) clarifying that DoDI 5210.65 does not preclude grouping of individual containers of chemical agents into sealed tamper-evident containers for storage and inventory purposes. My office is working to develop more detailed storage and inventory guidance for facilities that possess DoD chemical agents as part of the review and revision process for DoDI 5210.65. This guidance will include a requirement for a baseline physical inventory of primary containers and subsequent periodic inventories (e.g., upon change of the responsible custodian or within five years of sealing the secondary containers).

- Segregation of Duties: Non-concur. DoDI 5210.65 is silent on the requirement but AR 50-6 requires the presence of a third-party witness or inventory officer during physical inventories, who validates the physical inventory report. This practice is consistent with the U.S. Government Accountability Office (GAO) report 14-704 (Standards for Internal Control in the Federal Government, September 2014) cited in the DoD OIG report as the basis for the practice. The GAO report identifies segregation of duties as a way to mitigate the risk of management override of existing control activities, but also supports alternative control measures when segregation of duties is impractical. The current policy of requiring a third-party witness or inventory officer during physical inventories already effectively addresses the risk of management override.

Finding B:
Chemical Personnel Reliability Program (CPRP) Requirements. Personnel at Dugway, the contractor site, and Pueblo Chemical Depot did not consistently implement their respective CPRP requirements, resulting in an increased risk that chemical surety operations at these locations were not conducted in a safe, secure, and reliable manner.

Response:
Partially concur. Concur that facilities did not consistently implement their respective CPRP requirements. Non-concur that the findings in the report substantiate the conclusion that chemical agents and munitions were improperly safeguarded and that operations were not conducted in a safe, secure, and reliable manner. The report did not assess instances of noncompliance in relation to their significance or consider mitigating factors applied to the overall program. In many instances, site and higher headquarters level internal control mechanisms caught the inconsistent application of requirements and corrected the situation.

Deputy Assistant Secretary of Defense for Chemical and Biological Defense (cont'd)

I appreciate the opportunity to review the draft report and we will continue to work with all levels of command to strengthen the program. If additional information is required, please contact [redacted] at [redacted]

David C. Hassell
Deputy Assistant Secretary of Defense
for Chemical and Biological Defense

Attachment:
As stated

cc:
U.S. ARMY INSPECTOR GENERAL
DEPUTY CHIEF OF STAFF G-3/5/7, HEADQUARTERS, DEPARTMENT OF THE ARMY
COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND
COMMANDING GENERAL, U.S. ARMY TEST AND EVALUATION COMMAND
COMMANDER, DUGWAY PROVING GROUND
COMMANDER, PUEBLO CHEMICAL DEPOT

3

U.S. Army Inspector General

DEPARTMENT OF THE ARMY
OFFICE OF THE INSPECTOR GENERAL
1700 ARMY PENTAGON
WASHINGTON DC 20310-1700

REPLY TO
ATTENTION OF

SAIG-TI

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL

SUBJECT: Response to Draft Department of Defense Inspector General Report, Project Number D2016-D000RF-0053.000, "The Army Needs to Improve Controls Over Chemical Surety Materials"

1. I non-concur with the finding and recommendation associated with the Department of the Army Inspector General (DAIG) within the subject draft report.

2. The DAIG chemical surety inspectors consistently follow guidance from the Army and the Office of the Secretary of Defense (OSD) regulatory proponents. The Army and OSD proponents have provided my office with a written follow-up indicating our inventory inspection processes are consistent with their intent. If written standards by the Department of Defense and the Army change, we modify our inspection methodology to remain consistent with the regulatory proponent's intent.

3. My point of contact is [redacted]
commercial [redacted]

DAVID E. QUANTOCK
Lieutenant General, USA
The Inspector General

CF:
DASD/NCB
DCS, G-3/5/7

Printed on Recycled Paper

Department of the Army, Deputy Chief of Staff, G-3/5/7

DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF, G/3/5/7
400 ARMY PENTAGON
WASHINGTON, DC 20310-0400

DAMO-SSD

6 April 2017

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL, 4800 MARK CENTER DRIVE, ALEXANDRIA, VA 22350-1500

SUBJECT: Response to Department of Defense Inspector General Draft Report: The Army Needs to Improve Controls Over Chemical Surety Materials (D2016RF-0053)

1. References.

a. Draft Department of Defense Inspector General (DODIG) Report: The Army Needs to Improve Controls Over Chemical Surety Materials, 3 Mar 17.

b. Department of Defense Instruction 5210.65, "Security Standards for Safeguarding Chemical Agents," 19 Jan 16.

c. Army Regulation (AR) 50-6 (Chemical Surety), 28 Jul 08.

d. Department of the Army Pamphlet 385-61 (Toxic Chemical Agent Safety Standards), 13 Nov 12.

e. U.S. Government Accountability Office (GAO) 14-704G (Standards for Internal Control in the Federal Government), Sep 14.

2. Objective: The DODIG objective was to determine whether the Department of Defense (DOD) had effective controls over chemical surety materials in the possession or under the control of the Army and DOD contractors.

3. Conclusion: The DODIG concluded that the Department of the Army officials properly implemented accountability controls at chemical ammunition destruction sites. However, DODIG concluded that "Army officials did not fully implement accountability controls at the Inspected research facilities" and that "chemical personnel reliability program (CPRP) requirements were not consistently implemented."

4. Recommendation to Department of the Army, Deputy Chief of Staff, G-3/5/7:

a. Recommendation A.2: coordinate with the Deputy Assistant Secretary of Defense for Chemical and Biological Defense to:

(1) Provide guidance on appropriate segregation of duties.

Department of the Army, Deputy Chief of Staff, G-3/5/7 (cont'd)

DAMO-SSD
SUBJECT: Response to Department of Defense Inspector General Draft Report: The Army Needs to Improve Controls Over Chemical Surety Materials (D2016RF-0053)

(2) Revise AR 50-6 (Chemical Surety), to define acceptable inventory practices for Army and contractor facilities in possession of chemical surety materials.

b. Action taken or planned:

(1) **Nonconcur**. The DODIG report references GAO-14-704G, Standards for Internal Control in the Federal Government, for the guidance on segregation of duties. The GAO publication supports alternative control measures to address this risk when segregation of duties is not practical. AR 50-6 (reference 1c) requires the presence of a disinterested third-party witness or inventory officer during physical inventories, who validates the physical inventory report. This implements an alternate control measure consistent with the GAO publication.

(2) **Concur**. The Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs published a memorandum, Grouping of Chemical Containers for Storage and Inventory, 5 Dec 16, which confirmed support and clarified procedures for the grouping of primary containers into sealed tamper-evident containers for storage and inventory purposes. The next revision to reference 1c will incorporate the guidance and procedures in the memorandum and more detailed guidance developed in coordination with Assistant Secretary of Defense (Nuclear, Chemical, and Biological).

5. **Nonconcur** on the finding that, "The Army is at increased risk of inappropriately accounting for chemical surety material due to loss, error, or fraud." The use of tamper-evident sealed secondary containers is an acceptable practice that enhances safety and security of physical inventories.

6. **Nonconcur** on the finding that the "certifying official at Pueblo did not properly refer individual for medical evaluation after alcohol-related incident." The narrative and timeline identify that the certifying official properly implemented the requirements of AR 50-6 (reference 1c). The requirement to suspend CPRP processing is only applicable when an individual is diagnosed as abusing alcohol; the suspension continues until the individual has completed the treatment regimen prescribed by the competent medical authority. Because there was no diagnosis of alcohol abuse and no prescribed treatment regimen, there was no requirement to suspend CPRP certification.

7. With respect to the finding that, "competent medical authorities [CMA] did not always provide potentially disqualifying information to certifying officials," the report does not acknowledge the role of the CMA in determining the relevance and reportability of medical information. It is not clear from the report whether the CMA had correctly or incorrectly filtered information provided to the certifying official.

Department of the Army, Deputy Chief of Staff, G-3/5/7 (cont'd)

DAMO-SSD
SUBJECT: Response to Department of Defense Inspector General Draft Report: The Army Needs to Improve Controls Over Chemical Surety Materials (D2016RF-0053)

8. The points of contact are [redacted] or [redacted] and [redacted] or [redacted]

JOSEPH ANDERSON
Lieutenant General, U.S. Army
Deputy Chief of Staff, G-3/5/7

Encls
1. ASD memo, dated, 5 Dec 16
2. DAMO-SSD memo, dated, 9 Dec 16
3. Extracts of GAO-14-704G

Department of the Army, Deputy Chief of Staff, G-3/5/7 (cont'd)

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
3050 DEFENSE PENTAGON
WASHINGTON, DC 20301-3050

NUCLEAR CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM

DEC 0 5 2015

MEMORANDUM FOR: HEADQUARTERS, DEPARTMENT OF THE ARMY DCS G-3/5/7
(ATTN: DAMO-SSD)

SUBJECT: Grouping of Chemical Agent Containers for Storage and Inventory

References: (a) DoD Instruction 5210.65, "Security Standards for Safeguarding Chemical Agents," January 19, 2016
(b) Army Regulation 50-6, "Chemical Surety," July 28, 2008

This memorandum clarifies that the inventory, accountability, and records guidance in Reference (a) does not preclude grouping of individual containers of chemical agents into sealed tamper-evident containers for storage and inventory purposes. Until further guidance, Department of Defense (DoD) and contractor chemical agent facilities may continue to store and inventory groups of individual containers of chemical agents in sealed tamper-evident containers in accordance with current practices.

Office of the Secretary of Defense and Army staffs are working to develop more detailed storage and inventory guidance for facilities that possess DoD chemical agents as part of the review and revision process for References (a) and (b). Such guidance will address any final recommendations resulting from a recent Office of the DoD Inspector General audit of several Army and contractor chemical agent facilities and may include a requirement for a baseline physical inventory of primary containers and subsequent periodic inventories (e.g., upon change of the responsible custodian or within five years of the sealing of the secondary containers).

Please disseminate to Army and contractor chemical agent facilities. My point of contact for this effort is [redacted].

David C. Hassell
Deputy Assistant Secretary of Defense
for Chemical and Biological Defense

Department of the Army, Deputy Chief of Staff, G-3/5/7 (cont'd)

DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF, G-3/5/7
400 ARMY PENTAGON
WASHINGTON, DC 20310-0400

DAMO-SSD

DEC 9 2016

MEMORANDUM FOR:

U.S. ARMY MATERIAL COMMAND (AMC)
U.S. ARMY TEST AND EVALUATION COMMAND (ATEC)
U.S. ARMY TRAINING AND DOCTRINE COMMAND (TRADOC)
U.S. ARMY MEDICAL COMMAND (MEDCOM)

SUBJECT: Grouping of Chemical Agent Containers for Storage and Inventory

1. References:

a. Memorandum, Office of the Deputy Assistant Secretary of Defense for Chemical and Biological Defense, (DASD(CBD)), Grouping of Chemical Agent Containers for Storage and Inventory, 5 December 2016 (encl).

b. Department of Defense Instruction (DoDI) 5210.65, Security Standards for Safeguarding Chemical Agents, 19 January 2016.

c. Army Regulation 190-59, Chemical Agent Security Program, 10 April 2012.

d. Army Regulation 50-6, Chemical Surety, 28 July 2008.

2. The memorandum at reference 1a reflects the current Department of Defense (DOD) and Army guidance on inventory, accountability and records guidance described in references 1b and 1c. Until further notice, the DOD and contractor chemical agent facilities may maintain current practices in the organization of individual containers of chemical agent into sealed tamper-evident containers for storage and inventory purposes. The (DASD(CBD)) and Army staff are working to develop a more comprehensive storage and inventory guidline based on final recommendations from the DOD Inspector General audit of several Army and contractor chemical agent facilities.

3. Points of contact are [redacted] at [redacted] and [redacted]

Encl

CHRISTOPHER S. DENHAM
LTC, SF
Acting Division Chief

Department of the Army, Deputy Chief of Staff, G-3/5/7 (cont'd)

10.13 Segregation of duties helps prevent fraud, waste, and abuse in the internal control system.[33] Management considers the need to separate control activities related to authority, custody, and accounting of operations to achieve adequate segregation of duties. In particular, segregation of duties can address the risk of management override. Management override circumvents existing control activities and increases fraud risk. Management addresses this risk through segregation of duties, but cannot absolutely prevent it because of the risk of collusion, where two or more employees act together to commit fraud.

10.14 If segregation of duties is not practical within an operational process because of limited personnel or other factors, management designs alternative control activities to address the risk of fraud, waste, or abuse in the operational process.

Principle 11 - Design Activities for the Information System

11.01 Management should design the entity's information system and related control activities to achieve objectives and respond to risks.

Attributes

The following attributes contribute to the design, implementation, and operating effectiveness of this principle:

- Design of the Entity's Information System
- Design of Appropriate Types of Control Activities
- Design of Information Technology Infrastructure
- Design of Security Management
- Design of Information Technology Acquisition, Development, and Maintenance

Design of the Entity's Information System

11.02 Management designs the entity's information system to respond to the entity's objectives and risks.

11.03 Management designs the entity's information system to obtain and process information to meet each operational process's information requirements and to respond to the entity's objectives and risks. An information system is the people, processes, data, and technology that

[33] See paras. 8.02 through 8.03 for further discussion of fraud, waste, and abuse.

U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY MATERIEL COMMAND
4400 MARTIN ROAD
REDSTONE ARSENAL, AL 35898-5000

AMCOL-IS

APR 4 2017

MEMORANDUM THRU Office of the Deputy Chief of Staff, G-3/5/7 (DAMO-SS), 400 Army Pentagon, Washington, DC 20310-0400

FOR Deputy Assistant Secretary of Defense for Chemical and Biological Defense, 3050 Defense, Pentagon, Washington DC 20301-3050

SUBJECT: Army Materiel Command (AMC) Response to Department of Defense Inspector General (DODIG), Draft Report, Project No. D2016-D000RF-0053.000

1. Reference.

a. DODIG Draft Report, Project No. D2016-D000RF-0053.000, 3 Mar 17.

b. AMC Memorandum w/encl, AMCIR, 27 Mar 17, subject: Command Comments on DoDIG Draft Report: The Army Needs to Improve Controls Over Chemical Surety Materials, Project D2016-D000RF-0053.

2. This submission is provided for inclusion in DA and DOD submissions to the DODIG. As indicated in the enclosure of reference "b" (Encl 1), AMC does not concur that at anytime chemical agents and munitions were not properly safeguarded, and that operations were not conducted in a safe, secure, and reliable manner. AMC (Encl 2) and Pueblo Chemical Depot (Encl 3) analysis indicate erroneous suppositions and conclusions were made based on assumptions that individual instances of noncompliance placed agents and munitions at risk.

3. Request that all specific references to a contractor be blacked out or replaced with "contractor lab" or other generic reference prior to release.

4. The point of contact is [redacted] at [redacted] or [redacted].

Encls
as

NATHAN A. GODWIN
Principal Deputy Chief of Staff
for Operations and Logistics, G3/4

U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY MATERIEL COMMAND
4400 MARTIN ROAD
REDSTONE ARSENAL, AL 35898-5000

AMCIR

27 MAR 2017

MEMORANDUM FOR Department of Defense Inspector General (DoDIG/[redacted] Readiness and Cyber Operations, 4800 Mark Center Drive, Alexandria, VA 22350-1500

SUBJECT: Command Comments on DoDIG Draft Report: The Army Needs to Improve Controls Over Chemical Surety Materials, Project D2016-D000RF-0053.

1. The U.S. Army Materiel Command has reviewed the subject draft report and concurs with the enclosed response.

2. The U.S. Army Materiel Command point of contact is [redacted].

Lisha H Adams

Encl
as

LISHA H. ADAMS
Executive Deputy to the
Commanding General

Encl 1

U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S ARMY MATERIEL COMMAND
4400 MARTIN ROAD
REDSTONE ARSENAL, AL 35898-5000

REPLY TO ATTENTION OF:

AMCOL

MAR 17 2017

MEMORANDUM FOR Executive Deputy to the Commanding General, Headquarters Army Materiel Command

SUBJECT: Headquarters Army Materiel Command (AMC) Response to Department of Defense Inspector General (DODIG), Draft Report, Project No. D2016-D000RF-0053.000

1. References.

a. DODIG Draft Report, Project No. D2016-D000RF-0053.000, 3 Mar 17.

b. DODI 5210.65, Security Standards for Safeguarding Chemical Agents, 19 Jan 16.

c. AR 50-6, Chemical Surety, 28 Jul 08.

d. Memorandum, Deputy Assistant Secretary of Defense for Chemical and Biological Defense, 5 Dec 16, subject: Grouping of Chemical Agent Containers for Storage and Inventory.

e. AR 190-56, The Army Police and Security Guard Program, 15 Oct 09.

f. AR 190-59, Chemical Agent Security Program, 10 Apr 12.

2. The G-3/4 concurs with outlined recommendations in paragraphs 3 and 4 below. However, not all interpretations of DOD and DA guidance, and conclusions in the report are supported. The Assistant Secretary of Defense, Nuclear Chemical Biological and DA G-3/5/7 (DAMO-SSD), proponents for chemical agent surety, have convened a working group to prepare command and department submissions addressing report issues.

3. Reference "a" corrective action recommendations directed to the Commander, AMC are addressed below.

a. Recommendation A.3.a: Require chemical surety material custodians who are not performing semiannual inventories in accordance with AR 50-6 to perform a 100-percent physical inventory of chemical agents, by primary container to establish a baseline of the chemical agent inventory prior to implementing any alternate inventory processes defined as a result of Recommendations A.1 and A.2.

U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

AMCOL
SUBJECT: Headquarters Army Materiel Command (AMC) Response to Department of Defense Inspector General (DODIG), Draft Report, Project No. D2016-D000RF-0053.000

b. Recommendation A.3.b: Upon completion of Recommendations A.1 and A.2, ensure [redacted] standard operating procedures are updated to include revised inventory requirements.

AMC Response to Recommendations A.3.a and A.3.b: CONCUR. The AMC is currently in the process of consolidating management of all contractor owned contractor operated (COCO) chemical agent laboratories under AMC G-3/4 Surety Division and the Army Provisioning Manager vice the current Aberdeen Contracting Center. Projected AMC management consolidation completion is October 2017. This consolidation is consistent with reference "b", Enclosure 8. The Army Provisioning Agreement will include an appendix specifically addressing inventory and accountability requirements consistent with reference "d", and any updates to references "b" and "c" resulting from DOD and DA updates per reference "a" recommendations A.1 and A.2.

c. Recommendation B.1: We recommend that the Commanding General, U.S. Army Materiel Command, require the U.S. Army Materiel Command chemical surety officer to perform periodic reviews of the [redacted] certifying official files to ensure chemical surety guidance is being followed.

AMC Response: CONCUR. Currently [redacted] and all AMC assigned and supported surety sites are subject to a surety management review by AMC on a 24 month basis. Upon full implementation of the Provisioning process per reference "b", AMC will conduct annual certifications of all COCO laboratories, including [redacted]. Further, the certifying official for all COCO labs will be an AMC Surety Division member responsible for the administration of all reliability program files. The [redacted] employee with the outdated investigation update did not work with surety material and had no reason to be enrolled in the reliability program. AMC will address reliability program enrollments as outlined in "AMC Response" in paragraph 4 below. Further, all AMC Surety sites are subject to Unannounced Reviews that limit site notification by telephone no more than 24 hours in advance of the team's arrival. Two Unannounced Reviews were conducted in 2016.

4. Reference "a" corrective action recommendations directed to the Commander, Pueblo Chemical Depot, an AMC installation, are addressed below.

Recommendation B.3: We recommend that the Commander, Pueblo Chemical Depot, develop and implement additional internal controls to ensure the chemical surety officer provides effective oversight of compliance.

U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

AMCOL
SUBJECT: Headquarters Army Materiel Command (AMC) Response to Department of Defense Inspector General (DODIG), Draft Report,
Project No. D2016-D000RF-0053.000

AMC Response: CONCUR.
-The Pueblo Commander conducts quarterly surety boards and monthly certifying official training. Chemical Surety Basic training is conducted for new chemical personnel reliability program (CPRP) enrollees on an annual basis to continually remind them about the requirements of the CPRP, and their responsibility to self-report any potentially disqualifying information. The Chemical Surety Office has implemented additional internal controls that include quarterly reviews of Certifying Official working files to ensure all requirements are documented and maintained.
- During the PCD Department of the Army Inspector General (DAIG) Chemical Surety Inspection (CSI), 27 Feb thru 3 Mar 17, the DAIG Technical Inspection Division Team indicated that an updated records maintenance program, Surety Management Plan, and Certifying Official records have vastly improved processes, local historical program knowledge, historical file maintenance, and vastly decreased the time required for historical records review required by new Certifying Officials.
-To alleviate undo strain on CPRP administration at the site level, the AMC G-3/4 Surety Division is drafting specific guidance for inclusion in AMC Regulation 50-1, AMC Command Surety Management Program, and Army Chemical Agent Provisioning Agreements for contractor owned contractor operated laboratories, addressing limitations on enrollments into the CPRP consistent with references "b" and "c". Where other reliability program options are available, such as the Individual Reliability Program (IRP) per references "e" and "f" for security guards without direct access or controlling direct access to chemical agents, sites will be directed to use the IRP.

5. The point of contact is [redacted] who maybe contacted at [redacted] or [redacted].

NATHAN A. GODWIN
Principal Deputy Chief of Staff
for Operations and Logistics, G3/4

U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

Army Materiel Command (AMC) Analysis
DODIG Draft Report, Project No. D2016-D000RF-0053.000

INDEX

Enclosure 2

U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

Army Materiel Command (AMC) Analysis
DODIG Draft Report, Project No. D2016-D000RF-0053.000

1. Draft Report Findings A and B Summary Conclusions.

a. As previously discussed during DODIG audit first and second "discussion drafts", AMC does not concur that at any time chemical agents and munitions were not properly safeguarded, and that operations were not conducted in a safe, secure, and reliable manner. As noted in paragraph 3 below, AMC specifically assesses whether or not any action, omission or procedure, defined as a deficiency, could or did allow for the loss, theft, diversion; release of surety material into the environment; lead to injury or death; the enrollment of a prohibited person into the reliability program; or result in a significant loss of mission capability. From 2013 thru 2016, there were only two documented safety related 2015 Pueblo Chemical Depot instances, since corrected, that could have led to injury, but did not, see paragraph 3h below. DODIG suppositions and conclusions were made based on assumptions that individual instances of noncompliance placed agents and munitions at risk. These assumptions ignore the integrated and layered safeguards associated with a surety program, and the fact that no one safeguard administrative task executed flawlessly ensures acceptable levels of risk, and no isolated administrative task not fully executed to standard results in unacceptable levels of risk. However, administrative tasks require continued emphasis. The DODIG misinterpretation of both DOD and DA guidance, as indicated by the proponents, and accepted business practices also negatively contributed to the results.

b. All DODIG findings were administrative in nature, not unlike compliance findings of both AMC and the DAIG. Since all reviews, inspections and audits review existing files, duplication of previous findings are common. There were no specific findings substantiating unauthorized access to chemical munitions and agents or unsafe and unsecure operations. Further, the significance of the findings, the actual duties performed by the enrollees, determination of access to chemical agents and munitions, and analysis determining whether or not the administrative error was offset by other integrated and complimentary program elements were not considered. Based on AMC analysis of findings there were no increased risks to agents and munitions taken individually or in whole.

c. In addition to DOD and DA chemical agent program requirements, the inspected contractor laboratory and all other contractor-owned, contractor-operated laboratories in possession of Army surety agents are enrolled as a Tier 1 chemical agent facility and are subject to the requirements of the Department of Homeland Security (DHS), Office of Infrastructure Security Compliance Division, and the Chemical Facility Anti-Terrorism Standards (CFATS) program, 6 CFR Part 27, and the 18 Risk-Based Performance Standards. All subject laboratories undergo multiple external inspections. Similar to DOD/DA program requirements, the DHS program requirements include considerations of threats and risks; controlled access to agents; personnel surety; and background investigations. There have been no DHS findings indicating a lack of accountability, unauthorized access or unsafe or unsecure operations.

U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

Army Materiel Command (AMC) Analysis
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2. Accountability/Oversight.

Report Extract Finding A Contractor Laboratory Summary Statement, Page 17

- The Army is at increased risk of inappropriately accounting for chemical surety material due to loss, error or fraud.

- By not implementing the Army's accountability and controls and not having adequate oversight and guidance the Army is at increased risk that chemical surety materials are not properly stored and accounted for.

AMC Comments, Oversight:

a. Although AMC Surety Management Reviews found that the contractor laboratory implemented the accountability and controls required and intended by DOD and DA guidance when conducting inventories and when storing chemical surety material, AR 50-6 required inventories to be conducted by primary container. Although subsequently discontinued by the contractor laboratory, a December 2015 agent inventory, was conducted with tamper evident seals on secondary containers, an acceptable process per DOD and DA accountability proponents as communicated to the DODIG a number of times, but the seal process was not included in Army guidance. Although not mentioned in the audit report, it should be noted that all primary containers are inventoried into the secondary container before placement of a tamper evident seal for inventories. The contractor laboratory inventory conducted during the DODIG inspection was conducted by primary container and all inventories were conducted IAW DA/DOD guidance and the contractor inventory process.

b. The AMC oversight program was not assessed and no requests for oversight results were received from the DODIG.

c. It should be noted that the Edgewood Chemical Biological Center performs oversight of the contractor laboratory per the contract bailment agreement.

d. AMC always evaluates Inventory and accountability compliance during reviews, a task conducted by the Surety Division Chemist. This oversight process is both technical and comprehensive. A formal corrective action response process is included to ensure gaps are properly addressed. Corrective action implementation and compliance is assessed during the next review or inspection by both the DAIG and AMC. Although instances of noncompliance have been found, there has been no indication of increased levels of risk or loss of accountability found, owing to controlled access, witnessed processes each time a container of surety material is inventoried or used, and the continuous and traceable documentation of amounts withdrawn and used from each container.

AMC Comments, Contractor Laboratory Storage Risk:

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U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

Army Materiel Command (AMC) Analysis
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e. There were no specific findings supporting increased levels of risk associated with the contractor laboratory storage of agents.

f. All authorized access controls to agent within storage containers are arrayed outside the storage vault. Protections of opened vaults and containers within are the responsibility of authorized personnel under the two person rule who ensure all actions are conducted IAW approved processes and procedures. Both individuals are responsible for the detection of unauthorized acts one on the part of the other consistent with the two person rule requirement.

g. In addition to engineering and container related storage requirements outlined at subparagraphs "l" and "j" below, storage security risk reduction requirements implemented at the contractor laboratory include:
(1) Written procedures to control routine entry and deter unauthorized persons from entering rooms or laboratories where chemical agents are stored or used. Access to such rooms or laboratories by a lone individual are prohibited. Related requirements include warning signs indicating areas subject to special restrictions and controls and that only authorized persons are permitted entry; each chemical agent room or laboratory maintains an entry control roster, signed by the administrative official of the Personnel Reliability Program, containing the name and identification document number of the photographic ID used for entry (a state driver's license or any other government-issued photographic ID); entry into chemical agent rooms or laboratories are physically controlled by personnel who are listed on the entry control roster and assigned to the facility; personnel who control entry into chemical agent rooms or laboratories, and preclude unauthorized access, are enrolled in the PRP; visitors authorized to enter chemical agent rooms or laboratories are escorted by personnel who are listed on the entry control roster; a register is maintained to record the entry and exit of visitors; and a list of names and phone numbers of persons to be contacted in an emergency are maintained by security personnel.
(2) A limited restricted area is designated as the inside of a room or laboratory containing a chemical secure container. A restricted exclusion area is designated as the inside of a chemical secure vault/container and a temporary exclusion area is designated when chemical agents are removed from the chemical secure container. The temporary exclusion area for this purpose is the area immediately surrounding the chemical agents.
(3) A vulnerability assessment is conducted and updated by a team consisting of the facility security manager, knowledgeable members of the facility's security force, or local law enforcement officials, when applicable, and government security specialists.
(4) Secure storage containers for chemical agents are mounted in laboratory hoods, consisting of freezers, or refrigerators mounted in concrete. If agents require storage in laboratory hoods with glass, the glass is protected with steel mesh panels with a grid of not more than 1 inch by 2 inches center-to-center that can be raised or moved for authorized access to the chemical agents inside the laboratory hoods. All chemical secure containers, regardless of type, is secured with two locks and hasps and staples

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for padlocks are of heavy pattern steel, securely fastened to the structure with smooth-head bolts, heavy-duty rivets, or welding.
(5) Chemical agent rooms and laboratories meet minimum-security construction standards including walls, floors, and ceilings are constructed of at least 1/2-inch plywood, 1-inch tongue-in-groove wall boards or equivalent; roofs with suspended ceilings are protected to ensure the crawl space cannot be used for covert entry; windows and openings such as conduits, vents, and ducts in excess of 96-square inches with a smallest dimension greater than 6 inches are barred or grilled to ensure a degree of security comparable to that provided by the walls of the room or laboratory; doors are constructed of solid-core wood or metal, possess the appropriate Underwriters Laboratory fire rating, and be designed to complement the security provided by the exterior walls of the rooms and laboratories; hinges are mounted inside the room or laboratory or hinges mounted outside such rooms and laboratories are welded, peened, or brazed to preclude removal from outside the door; doors not used for primary entrance are secured from the inside at all times and devoid of external locking hardware. doors are equipped with appropriate hardware to permit rapid exit from the room or laboratory in the event of fire or other emergency; the main entrance door to the chemical agent room or laboratory are secured with a minimum of two key-operated deadbolt locks (with a 1-inch throw) providing two-person control for entry; padlocks are mounted on comparable hasps; all other doors are locked from the inside with a locking device with a 1-inch throw, crossbar, or similar barrier that is resistant to manipulation from the outside; panic hardware, when required, are installed so as to prevent opening the door by fish-wire manipulation of the locking device from the exterior side of the door; exterior doors of buildings with rooms or laboratories containing chemical agents are provided with an appropriate locking device on each door; and security lighting is provided for exterior doors of buildings containing chemical agents to discourage unauthorized entry and to facilitate the detection of intruders attempting to gain entry into the building and entrance doors of rooms or laboratories that contain the chemical agents.
(6) Intrusion detection systems (IDS) is installed on rooms or laboratories containing chemical agents to detect unauthorized entry. The IDS is designed so that it cannot be defeated by an intruder before producing an alarm. Sensors are installed inside the protected area; the interior of the room or laboratory includes volumetric or motion-detection sensors capable of perceiving entry and movement of an intruder within the protected area and are configured to cover all potential approaches to chemical secure containers (for example, laboratory hoods containing chemical agents). Control units are fitted with tamper-detection devices that annunciate at the alarm-monitoring panel, and is located inside the protected room or laboratory. The keys to the IDS control units are controlled and accounted for at all times. The IDS is in a secure mode (active) at all times when the room or laboratory containing chemical agents is unoccupied. The IDS is provided with backup battery power in case of electric power failure; and sensor activation is provided a 24-hour, alarm-signal monitoring service.
(7) In the event of an alarm, the system is capable of locating the zone where the signal on the premises originated.
(8) Law enforcement response is outlined in a memorandum of agreement approved

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by the contracting officer representative and police are capable of responding within 15 minutes of an alarm and the facility is included in patrol plans
(9) The agent laboratory has an electronic duress system providing laboratory personnel an immediate capability to contact security personnel for assistance in case of emergencies.
(10) Access to chemical agents is controlled according to the two-person rule, there is no lone access to surety material at any time.
(11) Keys to installed locks on chemical agent storage rooms, laboratories, and containers are strictly controlled at all times. Access to or possession of both keys to the locks or combinations of chemical containers and entry doors to rooms or laboratories containing chemical agents by only one person is prohibited. A key control system is established so that no one is allowed to interchange access to keys to installed "A" and "B" locks to the rooms, laboratories, or chemical containers.
(12) End-of-day security checks are established for the conduct of security checks at the close of each working day to ensure that rooms and laboratories containing chemical agents are secured and results are recorded. Responsible personnel are designated in writing to conduct checks of all chemical agent containers, and doors to chemical agent rooms or laboratories, to ensure they are secured.
(13) Except in an emergency covered by the facility's security plan, authorization is obtained from the contractor or authorized representative before a chemical agent room or laboratory is opened after normal working hours. When such an opening is authorized, the pertinent facts are documented. Procedures are established in the facility's security plan to provide for responsible facility personnel to challenge the validity of the authorization when dictated by the facts and circumstances in the case.

Report Extract Finding A Contractor Laboratory Accountability Controls, Pages 6-10

- Chemical Agent Accountability Controls Were Not Fully Implemented
- Contractor officials did not fully implement accountability controls over chemical surety materials stored at the contractor laboratory. Specifically: the contractor laboratory officials did not conduct chemical agent inventories by primary container, when one or more primary containers were stored in secondary containers
- Chemical Agent Inventories were not always conducted by primary container

AMC Comments, Contractor Laboratory Accountability Controls:

h. The Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs (ASD (NCB)) has published a memorandum (Grouping of Chemical Containers for Storage and Inventory, 5 Dec 16) which confirmed support and clarified procedures for the grouping of primary containers within tamper-evident containers for storage and inventory purposes. That memorandum was endorsed by DA memorandum with a commitment to include the guidance and procedures and other

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developed guidance, in coordination with ASD (NCB), into an on-going revision of AR 50-6, Chemical Surety. The procedures used at the contractor laboratory for inventory fully comply with that guidance, the contractor laboratory has not at any point lost accountability for DOD surety material, and no inventory discrepancies were found during the inventory conducted during the DODIG inspection. Although subsequently discontinued by the contractor laboratory, one (December 2015) contractor laboratory agent inventory, was conducted with tamper evident seals on secondary containers. To carry out an inventory when using tamper-evident seals, each primary container is inventoried by primary vial (as required by the guidance) and fully documented during a witnessed inventory as they are grouped within a secondary container which, on closure, a tamper evident seal is installed. All tamper-evident seals are uniquely identified, controlled, tracked, and of material or design such that they cannot be removed, altered, or replaced and are installed such that the secondary container cannot be opened, nor any primary container within accessed, without visible evidence. The tamper evident seal is solely an indicator, checked at each inventory subsequent inventory witness/team, that a secondary container had, or had not, been opened since the seal was installed. During each inventory, when a tamper-evident seal indicates to the inventory team and witness that a previously sealed secondary container had been opened, all vials within that secondary container are inventoried by primary container. When the tamper evident seal shows that a secondary container had not been opened, the previous by primary vial inventory of the contained vials is maintained, documented, and carried forward. The grouping of vials and the use of tamper-evident seals in this manner is a safety based measure to reduce hazards and risk to personnel by eliminating the handling of the extremely hazardous primary vials, solely for inventory, when a positive control indicates primary vials have not been used or accessed since a previous inventory by primary vial. The contractor laboratory inventory conducted during the DODIG inspection was in fact conducted by primary container and was conducted IAW DA/DOD guidance and following approved site accountability and inventory procedures.

Report Extract Finding A Contractor Laboratory Secondary Container, Pages 12 & 13

- Types of secondary containers varied from one lab to another
- The lack of guidance on appropriate secondary containers and seal processes increased the risk that chemical surety materials were not properly stored and the contractor personnel would not be able to detect unauthorized access to the materials.

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AMC Comments Contractor Laboratory Secondary Container:

i. Finding, "There is no lack of standards for secondary containers, proper storage or detection of unauthorized access." Department of the Army Pamphlet 386-61, Toxic Chemical Agent Safety Standards, 13 Nov 12, paragraph 8-1c(1)(a) and (b); and 8-1d outline detailed standards and systems for both "primary" and "secondary" (i.e. double) containment of agent.
(1) Double containment is required for quantities of neat chemical agent in excess of 1 ml removed from engineering controls and in unattended overnight storage.
(2) The double containment system must provide total containment in the event of leakage or breakage of the primary containment, must totally contain agent liquid and substantially contain agent vapors.
(3) Secondary containment includes, but is not limited to metal cans with friction-fit lids containing absorbent material and sealed syringe carriers.
(4) Containment of agent liquid and vapor is required at all times within a laboratory and a single containment system must completely contain agent liquid and vapor.
(5) the contractor laboratory utilizes air-tight and shatter resistant Nalgene polycarbonate or polypropylene jars for the secondary containment of primary containers with screw caps (i.e. opened and working vials) and a translucent airtight secondary container for the secondary containment of "as received" flame sealed vials. The translucent/transparent containers allows detection of leaks/breakage of primary container without opening the secondary containment, the very thing the DODIG criticized another Army lab for when an undetected leak occurred.
(6) With the exception of the December 2015 semiannual inventory, all contractor laboratory inventories, including the DODIG inventory, before and after the DODIG inspection were conducted by primary containers. With or without tamper evident seals, indications of leaks could have been detected but none occurred.
(7) Authorized Personnel. The conclusion that contractor laboratory's use of re-sealable plastic containers sealed with "tape" provides no assurance that only authorized personnel had access to chemical surety materials ignores the integrated and layered safeguards employed to ensure authorized access, discussed previously for storage risks in subparagraph "g" above. Assuming reference made is to "tamper evident tape," misrepresents the purpose of "tamper evident tape" as "to ensure authorized access" rather than its stated purpose to show that a container has been opened since a preceding inventory of the primary containers where the "tamper evident tape" was affixed. These safeguards include the two person rule (below) as well as the security measures outlined in the storage risks comments above.

j. Primary and secondary containment of agent is required by DA Safety standards that are discussed in sub-paragraph "i", above. Containment of agent liquid and vapor is required at all times within the laboratory and a single containment system must totally contain agent liquid and vapor. Appropriate agent container closures (i.e. sealing) are selected to preclude leaks, evaporation or breakage while stored or when accessed. Accordingly, flame sealing is used for primary containers produced, stored, and distributed by AMC's Edgewood Chemical Biological Center's Single Small Scale

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Facility (SSSF) to the R&D community. Individual vials with measured amounts of agent are sealed using standard operating procedures with built in quality control checks to verify correct and intact sealing. Flame sealing each vial creates a single unbroken wall structure that provides complete agent liquid and vapor containment, preventing both evaporation and leaks, suitable and used for long term storage. At a worksite, upon removal of the flame seal, vials are closed with a screw top, Teflon lined cap and tightly wrapped with parafilm meeting the required safety standard for a primary containment system to contain agent liquid and vapor. Primary containers for R&D laboratories are then placed into "secondary containment" meeting requirements outlined in subparagraph "i" above, within engineering controls and under controlled environmental conditions (e.g. controlled or reduced temperature/refrigeration to reduce agent degradation) in laboratories or rooms with layered security, alarms, construction, and controls to ensure authorized access.

3. Draft Report Finding B, Chemical Personnel Reliability Program, Pueblo Chemical Depot and Contractor Laboratory.

Report Extract Finding B Pueblo and Contractor Laboratory Summary Statement, Page 25

- Access to Chemical Surety Materials Granted To Personnel Who May Not Meet Suitability and Reliability Standards
- Pueblo, Contractor Laboratory granted access without properly determining whether these personnel met or continued to meet CPRP suitability and reliability standards
- Certifying Official at Pueblo Did Not Properly Refer Individual for Medical Evaluation after Alcohol-Related Incident
- As a result, there was increased risk that chemical surety materials at these locations were not properly safeguarded and that operations were not conducted in a safe, secure and reliable manner.

AMC Comments: Non-concur.

a. AMC does not concur that at any time chemical agents and munitions were not properly safeguarded, and that operations were not conducted in a safe, secure, and reliable manner. Instances of noncompliance were not assessed in relation to their significance and mitigating factors of complimentary program safeguards ensuring safe and secure operations.

b. Erroneous suppositions and conclusions were made based on assumptions that individual instances of noncompliance placed agents and munitions at risk. These assumptions ignore the integrated and layered safeguards associated with a surety program, and the fact that no one safeguard administrative task executed flawlessly

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ensures acceptable levels of risk, and no one safeguard administrative task not fully executed to standard results in unacceptable levels of risk.

c. Reliability, and safe and secure operations are taken seriously at all levels within AMC and when removal from surety duties is justified appropriate actions are taken. A review of AMC chemical reliability program status reports indicate that no contractor personnel have been disqualified from 2013 thru 2016 with an average annual enrollment of 131 contractors located at both contractor and AMC laboratories. From 2013 thru 2016 an annual average of 478 AMC government employees were enrolled in the chemical reliability program and a total of 15 AMC instances supporting removal were identified at AMC surety facilities. Years and reasons for removal included 2013 (1 alcohol, 1 restricted criteria-AR 50-6, paragraph 2-7f and 1 physical); 2014 (1 physical); 2015 (1 alcohol, 3 negligence and 3 mental); and 2016 (1 unfavorable background investigation; 1 sexual misconduct; 1 drug test failure; and 1 non-disclosure of misconduct). There were no substantiated increased risk to surety agents or munitions associated with these removals. It should also be highlighted again that not all reliability program enrollees have access to chemical agents or munitions.

d. No Pueblo Chemical Depot personnel cited for inconsistencies with the CPRP had access to chemical agents or munitions. Not all personnel at the contractor laboratory had access to surety agent and those that did were not found unreliable before, during or after the DODIG audit.

e. The DODIG misinterpretation of both DOD and DA guidance and accepted practices also negatively contributed to results. For example, one finding was made involving a Pueblo "alcohol related Incident" indicating the certifying official failed to suspend enrollment screening of an employee. In reality suspension during processing is only applicable when an individual is diagnosed as abusing alcohol, and there was no requirement to suspend CPRP certification.

f. All DODIG findings were administrative in nature, not unlike that of AMC and the DAIG for inspections and reviews. Further, the significance of the findings, the actual duties performed by the enrollees, determination of access to chemical agents and munitions, and analysis whether or not the administrative error was offset by other integrated and complimentary program elements were not considered by the DODIG. Based on AMC analysis of findings there were no risks to agents and munitions taken individually or in whole.

Report Extract Finding B Contractor Laboratory Outdated Investigation, Page 24

- One individual at contractor laboratory who continued performing CPRP duties for over 23 months with an expired PSI

AMC Comment:

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g. In reality the individual subject to this finding should not have been enrolled in the PRP as he did not work with or have access to agent. This will be further addressed once HQAMC assumes the reliability program responsibilities from the Aberdeen Contracting Center.

Report Extract Finding B Oversight, Pages 24 & 25

- CPRP requirements were inconsistently implemented because chemical surety officers did not provide effective oversight to ensure compliance. Chemical surety officers did not detect instances where CPRP officials and personnel did not properly implement CPRP guidance. Commanders of these facilities need to develop and implement additional controls to ensure that chemical surety officers provide effective oversight of compliance with CPRP requirements.

AMC Comments:

h. AMC does not concur with the supposition that there is no effective oversight to ensure compliance. In addition to the DAIG, compliance is assessed continuously at all levels from the site, intermediate commands, contracting office, and at HQAMC. It is well known that instances of non-compliance can and will be found due to many causes but most can be attributed to execution errors or omissions. However, identification of non-compliance is only the first step in oversight. The oversight task must determine impact or significance of the finding, and proper prioritization and execution of corrective actions. AMC verifies implementation of approved corrective actions for both AMC and DAIG findings. Further, reliability, and safe and secure operations are taken seriously at all levels within AMC and when removal from surety duties is justified appropriate actions are taken. From 2013 through 2016, AMC documented two instances of safety related findings rising to the level of a deficiency (actions, omissions or procedures that could lead to injury or death) and no instances of noncompliance that, if not corrected, could or did allow for loss, theft, diversion; release of surety material into the environment; the enrollment of a prohibited person into the PRP; or result in a significant loss of mission capability. Although the safety instances did not result in injury, they could have. One security guard's weapons qualification was expired, possibly increasing risk to innocent bystanders or an inability to effectively engage a threat, and one toxic material handler was allowed to conduct non-surety duties inside the limited area, an area requiring a protective mask, and he was unable to properly mask in an emergency as he could not lift his arm above his head. It should also be noted that there was substantiated increased risk to surety agents or munitions.

i. Instances of noncompliance are assessed in relation to their significance and mitigating factors of complimentary program safeguards ensuring safe and secure operations in all surety functional areas (Surety Operations, Support, Safety, Security, Surety Management, Emergency Response and Medical) to determine their actual impact on mission capability; adequacy of support, guidance, funding, staffing and training; determination if systemic issues exist; and overall compliance.

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j. The primary difference between the DODIG and AMC compliance results is that AMC, the commands, and surety officers analyze instances of noncompliance and evaluate their significance and impact on safeguards and whether or not other complimentary safeguards effectively reduce or minimize overall risks/impacts on safe and secure operations. However, regardless of impact, no instances of non-compliance are disregarded and corrective actions are taken.

k. It's not known in all cases whether or not DODIG personnel reviewed results of AMC Surety Management Reviews or made the same findings and inquiries previously made by AMC. However, in one instance DODIG finding related to a contractor laboratory employee with medical potentially disqualifying information in 2013. AMC found the 2013 issue during the 2015 biennial Surety Management Review (SMR). No AMC finding was made as AMC determined the report was made to the Reviewing Official as indicated in the June 2013 email chain of the Certifying Official (CO) and the RO, which met the requirement. (See Attachment)

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U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

[redacted]

From: [redacted]
Sent:
To:
Cc:
Subject: RE: AMC report (UNCLASSIFIED)

Categories: Important
Classification: UNCLASSIFIED

CLASSIFICATION UNCLASSIFIED

Oh, this was from the 6/19/13 medical PDI report I signed.

-----Original Message-----
From: [redacted]
Sent: Friday, June 12, 2015 10:09 AM
To: [redacted]
Cc: [redacted]
Subject: AMC report (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

[redacted]

I just completed a meeting with AMC.

During your last AMC inspection, they noted that in the medical files for [redacted] that there was some PDI identified that required me to get the RO approval etc.

FYI, and to close the loop on that issue, I have the copy of the required RO's approval etc. in my PRP file for [redacted]. This was a result of me giving myself a note on the PDI report that I needed to perform additional actions before he is placed into the PRP. Those actions have been completed and are in my files.

If you have any questions, feel free to call me and I can explain further.

[redacted]

CLASSIFICATION: UNCLASSIFIED
CLASSIFICATION: UNCLASSIFIED

Attachment

U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL MATERIALS ACTIVITY
PUEBLO CHEMICAL DEPOT, BUILDING 1
45825 HIGHWAY 96 EAST
PUEBLO, COLORADO 81006-9330

CMPC-CSC

MEMORANDUM THRU Director, U.S. Army Chemical Materials Activity, (AMSCM-D), E4585 Hoadley Road, Aberdeen Proving Ground, MD 21010-5424

FOR Commander, U.S. Army Materiel Command, (AMCOPS-CO), 4400 Martin Road, Redstone Arsenal, AL 25898

SUBJECT: Pueblo Chemical Depot Response to Department of Defense Inspector General (DODIG), Draft Report, Project No. D2016-D000RF-0053.000

1. References:

a. DODIG Draft Report, Project No. D2016-D000RF-0053.000, 3 Mar 17.

b. Department of Defense Instruction 5210.65, Security Standards for Safeguarding Chemical Agents, 19 Jan 16.

c. Army Regulation 50-6, Chemical Surety, 28 Jul 08.

2. Pueblo Chemical Depot (PCD) does not agree with the underlying premise of the report "The Army Needs to Improve Controls Over Chemical Surety Materials." As noted in the DODIG report, PCD properly implemented accountability controls such as inventory management and documenting the destruction of the chemical munition stockpile stored at PCD. In addition, PCD does not agree with some of the conclusions based on the DODIG interpretation of both Department of Defense and Department of the Army guidance; specifically, there was no increased risk to chemical surety material stored at PCD.

3. Reference "Table 1. Number of Deficiencies Identified from the Sampled Individuals in the Chemical Personal Reliability Program (CPRP)," page 20, and corrective action recommendations directed to the Commander, PCD, page 25: It is important to note that all four identified individuals had been previously identified through PCDs current established internal controls prior to the DODIG inspection and also, that at no time did the identified individuals have direct access to chemical surety material. As such, there was no increased risk to the chemical surety material stored at PCD. At no time in any of these situations were the individuals' reliability or judgment a concern to the Certifying Officials (CO) involved.

a. Individual did not properly self-report Potentially Disqualifying Information (PDI) #1: On 29 Oct 13, the individual had a scheduled follow-up medical appointment (last seen

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U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

on 10 Oct 13). He reported that he was seen by his Primary Care Manager (PCM) for cold symptoms and sinus headache on 18 Oct 13, and was prescribed three new medications. The Competent Medical Authority recommended no restrictions.

b. Individual did not properly self-report PDI #2: On 8 Feb 14, the individual's medical record was being reviewed as part of the routine preparation for an upcoming inspection. As part of the record review, the individual was contacted to make sure there were no changes in his health status. He noted that his primary care provider had changed him from one medication to another due to the cost of the first. The employee stated he did not think he had to report the medication change as the condition was previously reported and well documented, and he was switched back to a medication he had used previously, which had been reported to his CO. The Competent Medical Authority recommended no restrictions.

c. Individual did not properly self-report PDI #3: The individual involved had temporary hearing loss, which was corrected. The chronology involved:

- In December 2013, during an annual medical exam a significant shift in hearing in the individual's left ear was identified. The Competent Medical Authority stated at this time it did not impact the individual's reliability or his duty performance.
- The individual reported he was working at the front gate the morning of 25 Jun 14 (graveyard shift) and he was having slight hearing issues (not a complete loss), which he said he reported to his CO and supervisor prior to his departure. He went home to sleep for a few hours, and awoke that afternoon with significant hearing loss, which lasted for approximately 4 hours, then returned to normal.
- The individual self-reported this to the Competent Medical Authority on 14 Jul 14, along with the treatment he received. The Competent Medical Authority recommended a medical restriction. The CO agreed and completed notification of medical restriction on 15 Jul 14. At no time from 25 Jun 14 to 14 Jul 14 did the individual carry a weapon or have direct access to chemical surety material.
- The individual continued follow-up appointments and medical evaluations, and acquired cross-over hearing aids, which allowed sound on the left side to be heard through his right ear. On 24 Nov 14, the Competent Medical Authority recommended no restrictions, and the CO removed the medical restriction.

U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

CMPC-CSC
SUBJECT: Pueblo Chemical Depot Response to Department of Defense Inspector General (DODIG), Draft Report, Project No. D2016-D000RF-0053.000

d. Certifying official did not refer individual for medical evaluation after alcohol-related incident #4: The individual graduated from the security-guard academy on 28 Aug 14 and was in his initial phase of screening for the CPRP. On or about 29 Aug 14, he was charged with Driving While Ability Impaired (DWAI). As the program requires, the individual self-reported the alcohol-related incident. While not formally suspending this individual's screening, his CO temporarily halted further CPRP processing. In late November 2014, CPRP processing resumed. In accordance with routine procedures the individual was referred to the Competent Medical Authority in January 2015, who referred the individual for a behavioral health evaluation on 27 Jan 15. The individual was evaluated on 6 Feb 15 at Evans Army Community Hospital and found not to be alcohol dependent. On 10 Feb 15, the Competent Medical Authority concluded there was no impact on the individual's reliability or his ability to perform his duties as a security guard. After the screening process was complete the CO made a CPRP suitability determination. The final CO briefing and CPRP enrollment was completed on 17 Feb 15.

4. Since December 2015 the current Competent Medical Authority and the clinic have gone through one MEDDAC inspection and a recent Department of the Army Inspector General (DAIG) Chemical Surety Inspection (CSI) in 2017 without any unreported PDI observations, despite the fact that PCD experienced two changes of Competent Medical Authorities within 24 months.

5. Recommendation B.3: "We recommend the Commander, Pueblo Chemical Depot, develop and implement additional internal controls to ensure the chemical surety officer provides effective oversight of compliance."

a. PCD Response to Recommendation B.3: PCD already had internal controls in place, which were reviewed following the inspection. The Commander of PCD is working with the Chemical Surety Officer to continue conducting quarterly chemical surety boards and monthly CO training. This ensures COs and the organizations that support the PCD CPRP are trained and remain informed about CPRP changes, updates and issues. The Chemical Surety Basic Course is conducted for new CPRP enrollees and the Chemical Surety Refresher Course is taught to CPRP enrollees annually to continually reinforce CPRP requirements and their responsibility to self-report any PDI. In December 2015, these courses were updated, and additional slides were added that identified self-reporting specifics. The Chemical Surety Office implemented additional internal controls in early FY16 by starting quarterly review of CO working files to ensure COs were completing and maintaining the required supporting documentation.

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U.S. Army Materiel Command and U.S. Army Pueblo Chemical Depot (cont'd)

CMPC-CSC
SUBJECT: Pueblo Chemical Depot Response to Department of Defense Inspector General (DODIG), Draft Report, Project No. D2016-D000RF-0053.000

b. During the PCD DAIG CSI (27 Feb thru 3 Mar 17), the DAIG Technical Inspection Division Team stated the following in their DRAFT report:

*(1) (**Positive Note**) "The development and implementation of an updated records maintenance program have vastly improved Certifying Official processes and local historical program knowledge. During the review of the updated Surety Management Plan and the Certifying Official records, the inspectors identified the updated policy improved historical file maintenance which vastly decreased the time required for historical records review required by new Certifying Officials. The Commander should continue to explore, develop, implement, and update policies to further improve the Personnel Reliability Program (PRP)"*

6. Point of contact is [redacted]

THOMAS A. DUNCAN II
COL, CM
Commanding

4

U.S. Army Test and Evaluation Command

DEPARTMENT OF THE ARMY
UNITED STATES ARMY TEST AND EVALUATION COMMAND
2202 ABERDEEN BOULEVARD– THIRD FLOOR
ABERDEEN PROVING GROUND, MD 21005-5001

CSTE-IP 31 March 2017

MEMORANDUM THRU

Office of the Deputy Chief of Staff, G- 3/5/7 (DAMO-SS), 400 Army Pentagon, Washington, DC 20310-0400

Deputy Assistance Secretary of Defense for Chemical and Biological Defense, 3050 Defense, Pentagon, Washington DC 20301-3050

FOR Department of Defense Inspector General (DOD IG), Readiness and Cyber Operations (RCO) [redacted] 4800 Mark Center Drive, Alexandria VA 22350-150

SUBJECT: Response to Draft Report The Army Needs to Improve Controls Over Chemical Surety Materials, Project No. D2016-D000RF-0053.000

1. References:

a. Memorandum, U.S. Army Dugway Proving Ground, TEDT-DP-CO, 31 March 2017, subject: Dugway Proving Ground Response to Department of Defense Inspector General Report D2016-D000RF-0053.000 (enclosure 1).

b. DoD Inspector General Report, Project No. D2016-D000RF-0053.000, "The Army Needs to Improve Controls Over Chemical Surety Materials," 3 Mar 17 (enclosure 2).

c. Memorandum, Office of the Assistant Secretary of Defense, Nuclear, Chemical and Biological Defense Programs, 5 December 2016, subject: Grouping of Chemical Agent Containers for Storage and Inventory (enclosure 3).

d. Memorandum, Department of the Army, DAMO-SSD, 9 December 2016, subject: Grouping of Chemical Agent Containers for Storage and Inventory (enclosure 4).

2. ATEC appreciates the DOD IG audit and feedback on the DPG chemical surety program, allowing us to improve processes and procedures. We will continue to work with all stakeholders to maintain and ensure the highest level of chemical surety.

3. We partially concur with Finding A. Of the four elements, we concur with one and nonconcur with three. The element with which we concur was a minor administrative error, did not negatively impact on surety, and was corrected during the audit.

U.S. Army Test and Evaluation Command (cont'd)

CSTE-CG
SUBJECT: Response to Draft Report The Army Needs to Improve Controls Over Chemical Surety Materials, Project No. D2016-D000RF-0053.000

With regard to the three elements with which we nonconcur, we were in compliance with governing Army Regulations and DOD Instructions as validated by numerous past inspections. At no time was there any compromise to chemical surety material.

4. We partially concur with Finding B. We disagree with the overarching finding that chemical surety officers did not always provide effective oversight to ensure compliance. We do agree that there were some individual lapses in reporting timelines. All Chemical Personnel Reliability Program (CPRP) findings were self-identified and resolved prior to the DOD IG Audit. However, we recognize that we can improve the awareness of roles and responsibilities of CPRP management and enrollees during the life-cycle of the program. This will provide us the opportunity for additional training, improved control measures, and further refinement of procedures. Again, at no time, was there any compromise to chemical surety material.

5. I am completely confident DPG is executing the surety mission to standard, and at no time were any personnel put at risk, nor was there any loss of accountability of chemical surety material. ATEC will continue to provide oversight of the DPG surety mission through independent analysis and inspection. This oversight has demonstrated effective controls, provided continuous improvement and strengthened protection in use, accountability, and storage of surety materiel. Also, ATEC will continue to participate in collaborative technical working groups to help further enhance the chemical surety program.

6. The audit was useful in identifying where policies and procedures can be clarified and improved and identifying opportunities for additional training and continuing our record of no loss of chemical surety material.

7. The point of contact is [redacted]

TRUTH IN TESTING!

4 Encls

JOHN W. CHARLTON
Major General, USA
Commanding

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U.S. Army Dugway Proving Ground

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY DUGWAY PROVING GROUND
DUGWAY UT 84022-5000

REPLY TO
ATTENTION OF:

TEDT-DP-CO 31 March 2017

MEMORANDUM FOR Commanding General, U.S. Army Test and Evaluation Command, (CSTE-CG/MG Charlton), 2202 Aberdeen BLVD, Aberdeen Proving Ground, MD 21005

SUBJECT: Dugway Proving Ground Response to Department of Defense Inspector General Report D2016-D000RF-0053.000

1. References:

a. DoD Inspector General Report Project Number D2016-D000RF-0053.000

b. DoD Instruction (DoDI) 5210.65, "Security Standards for Safeguarding Chemical Agents," January 19, 2016

c. Army Regulation (AR) 50-6, "Chemical Surety," 28 July 2008

d. U.S. Government Accountability Office report 14-704, Standards for Internal Control in the Federal Government, Sep 14

e. DA PAM 385-61, Toxic Chemical Agent Safety Standards, 13 November 2012

2. Purpose: Provide response to the Department of Defense (DoD) Inspector General (IG) Report Project number D2016-D000RF-0053.00

3. Proper safeguarding of chemical surety material is a primary mission responsibility for Dugway Proving Ground (DPG). Our chemical surety material handlers, custodians, and accountable officials follow DoD and Army guidance for access control, storage, and accountability. DPG appreciates the feedback provided by DODIG pursuant to this audit and will apply recommendations to improve our operations. DPG also appreciates the opportunity to comment on this Draft Report. DPG partially concurs with Finding A: *Chemical Agent Accountability Controls Were Not Fully Implemented* (reference 1.a). DPG partially concurs with Finding B, *Chemical Personnel Reliability Program Requirements Were Inconsistently Implemented* (reference 1.a).

a. *Finding A.* DPG compliance with existing policy in accounting for chemical surety material has been validated by Memorandums from Deputy Assistant Secretary of Defense for Chemical and Biological Defense, dated 5 December 2016 (enclosure 2), and from Department of the Army, dated 9 December 2016 (enclosure 3), as well as multiple successful oversight inspections, staff assistance visits, and surety management reviews. Our inventory practices have always exceeded the intent of both DOD and Army policy and guidance, incorporate sufficient rigor to ensure 100% accountability, and are in keeping with the "Cardinal Principle",

U.S. Army Dugway Proving Ground (cont'd)

TEDT-DP-CO
SUBJECT: Dugway Proving Ground Response to Department of Defense Inspector General Report D2016-D000RF-0053.000

as stated in reference 1.e., of safe handling of toxic materials to limit unnecessary exposure to our people. We also feel that the consolidation of duties between the accountable official and the primary custodian was in full compliance with reference 1.c. and would not increases the risk that chemical surety materials were improperly accounted for at DPG. The presence of a disinterested third-party witness or inventory officer during physical inventories, who validates the physical inventory report, provides alternate control measures consistent with reference 1.d., and effectively addresses the risk of management override.

b. *Finding B.* The DoD IG audit did not discover any instances of Chemical Personnel Reliability Program (CPRP) non-conformance not previously identified and resolved through existing internal controls and oversight. However, DPG acknowledges that we can improve the awareness of roles and responsibilities of CPRP management and enrollees during the life-cycle of the program. There is no evidence or belief that chemical surety materials at DPG were ever at risk or that operations were not conducted in a safe, secure, and reliable manner.

4. Detailed clarification and additional comments of DPG's position on the DoD IG findings and recommendations are found in the track changes of the For Official Use Only (FOUO) draft report (enclosure 1). DPG concurs with recommendations A.5.a through A.5.c, and B.2 and non-concurs with A.5.d (reference 1.a).

a. *Recommendation A.5.a.* The report states "....perform a 100-percent physical inventory of chemical agents, by primary container to establish a baseline of the chemical agent inventory prior to implementing any alternate inventory processes..." DPG concurs with this recommendation. DPG promptly completed a 100% physical inventory of chemical agent by primary containers in June 2016 which re-established the baseline of the chemical agent inventory. DPG completed a second 100% physical chemical agent inventory by primary container in December 2016 with no discrepancies.

b. *Recommendation A.5.b.* The report states "... update Dugway Proving Ground standing operating procedure, DP-0000-L-651, "Receipt, Storage, Inventory, and Issue of Chemical Surety Materials/Neat Agents," to ensure compliance with updated inventory requirements." DPG concurs with this recommendation and will update the DP-0000-L-651 standing operating procedure upon receipt of DoD Instruction 5210.65 (reference 1.b) revision and Army Regulation 50-6 (reference 1.c) revision. DPG stands ready to support proponent-level working groups during the revision of these regulations.

c. *Recommendation A.5.c.* The report states "Provide refresher training on reporting and resolving inventory discrepancies to all personnel with chemical agent accountability duties." DPG concurs with this recommendation and conducted on-the-spot corrections with the inventory team, immediate training with all other agent handlers, and refresher training on 18 January 2017. DPG will also enhance enduring annual refresher training on reporting and resolving inventory discrepancies.

d. *Recommendation A.5.d.* The report states "Ensure segregation of duties is maintained over the accountability of chemical surety material inventory..." DPG non-concurs. AR 50-6, paragraph 1-4.w.(2)(b) states: "[Commanders/Directors...will appoint in writing] accountable

U.S. Army Dugway Proving Ground (cont'd)

TEDT-DP-CO
SUBJECT: Dugway Proving Ground Response to Department of Defense Inspector General Report D2016-D000RF-0053.000

officers and/or custodians as necessary, to manage the day-to-day matters involved in the inventory management of chemical agents." DPG complied with AR 50-6. Separating the duties of the accountable officer and the agent custodian does not achieve the report recommendation. Specifically, the custodian can still authorize, process, record, and review transactions because these are not duties assigned to the accountable officer. The objective that "no one individual controls all these aspects" is achieved through the disinterested observer to the physical inventory required by AR 50-6.

e. *Recommendation B.2.* The report states "...develop and implement additional internal controls to ensure the chemical surety officer provides effective oversight of compliance." DPG concurs with the recommendation for additional internal controls and oversight to help prevent the instances identified by the report (reference 1.a). DPG has demonstrated existing internal controls and oversight through identification and resolution of all 12 cases given in Table 1 prior to the DoD IG audit (reference 1.a).

(1) Certifying officials did not always report prior drug use to reviewing officials before certifying individuals into the CPRP (reference 1.a). Sample #13 was enrolled into the CPRP on 17 November 14 prior to reviewing official concurrence. This was discovered on 2 December 14 during an Army Test and Evaluation Staff Assistance Visit and corrected on 14 January 14 prior to the DoD IG audit which demonstrated effective internal controls and oversight.

(2) Individual did not properly self-report PDI (reference 1.a). All five individuals (Sample #s 4, 36, 37, 85, and 93) cited for not properly self-reporting were identified by DPG and resolved months to years prior to the DoD IG audit which demonstrated effective internal controls and oversight.

(3) Security Manager did not always conduct personnel security investigations timely (reference 1.a). Four of six PSIs were conducted after the due date; however, Samples #61 and #74 were conducted within full compliance of the due date.

(4) DPG is in the process of developing Surety Office reviews including quarterly audits of the following areas: emergency response, medical, mission operations, safety, security, and surety management. DPG has also established an automated process to ensure PSIs are submitted in a timely manner and will review and enhance training in the areas identified. DPG will continue to assess processes and procedures to ensure appropriate levels of internal controls and oversight. In addition, DPG has begun to revise DPG Regulation 50-1, *Surety Operations*, to codify these controls and oversight and will publish the revised edition within 180 days of DoD Instruction 5210.65 and Army Regulation 50-6 revisions.

U.S. Army Dugway Proving Ground (cont'd)

TEDT-DP-CO
SUBJECT: Dugway Proving Ground Response to Department of Defense Inspector General Report D2016-D000RF-0053.000

5. DPG responses and actions to recommendations and findings demonstrate our resolve to comply with DoD and Army instruction. DPG will continue to provide attention to detail in effective controls in stewardship over chemical surety material and will use the DoD IG audit to improve those controls. While regulations merit clarification, at no time has this led to increased risks to control, safeguarding, or operations using chemical surety material. DPG will continue to apply expertise in defensive testing to prepare and protect the Nation's defenders from chemical and biological hazards.

KIRSCHNER.S
EAN.GROOM.
[redacted]

3 Encl
1. DPG track changes of D2016-D000RF
2. Memorandum dated 5 December 2016
3. Memorandum dated 9 December 2016

SEAN G. KIRSCHNER
Colonel, CM
Commanding

Acronyms and Abbreviations

AR	Army Regulation
CPRP	Chemical Personnel Reliability Program
Deseret	U.S. Army Deseret Chemical Depot
Dugway	U.S. Army Dugway Proving Ground
GAO	Government Accountability Office
PDI	Potentially Disqualifying Information
PSI	Personnel Security Investigation
Pueblo	U.S. Army Pueblo Chemical Depot


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