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REPORT OF THE VISIT BY THE CHAIRPERSON OF THE EXECUTIVE COUNCIL AND REPRESENTATIVES OF THE EXECUTIVE COUNCIL TO THE PUEBLO CHEMICAL AGENT DESTRUCTION PILOT PLANT AND EXPLOSIVE DESTRUCTION SYSTEM COLORADO, THE UNITED STATES OF AMERICA 22 – 27 MARCH 2015

Introduction

1. In its decision entitled the "Final Extended Deadline of 29 April 2012" (C-16/DEC.11, dated 1 December 2011), the Conference of the States Parties (hereinafter "the Conference") decided that the possessor States concerned are to invite the Chairperson of the Executive Council (hereinafter "the Council"), the Director-General, and a delegation representing the Council to undertake visits to obtain an overview of the destruction programmes being undertaken. The Conference further decided that these visits are to, inter alia, include visits to destruction facilities as well as meetings with parliamentarians, if possible, and government officials in capitals as a formal part of the visits. Invitations are to also be extended to observers to participate in the Council delegation.

2. In pursuance of the above-mentioned decision of the Conference (C-16/DEC.11), the United States of America (hereinafter "the United States") invited the Council to visit the Pueblo Chemical Agent Destruction Pilot Plant (PCAPP), Colorado, and the Pueblo Chemical Agent Destruction Pilot Plant – Explosive Destruction System (PCAPP EDS), Colorado, between 22 and 27 March 2015. The United States provided a general outline of logistical and safety considerations (Annex 1 to this report) as well as a detailed itinerary (Annex 2), and initiated consultations with the Chairperson of the Council, with a view to finalising all specific details of the visit.

3. Subsequent to consultations within the various regional groups and in line with the aforementioned decision of the Conference, the Council delegation that visited the Pueblo facilities comprised representatives of States Parties, the Director of the Verification Division of the Technical Secretariat (hereinafter "the Secretariat"), representing the Director-General, and a Secretariat staff member. The names of the members of the Council delegation are listed in Annex 3 to this report, and the names of the representatives of the United States who hosted the visit are listed in Annex 4.

4. The Secretariat made the necessary funds available to the Chairperson of the Council, the Director of the Verification Division, and the Secretariat staff member. In addition, funding was provided for the representatives of the African Group and the Asian Group, as well as for the observers from Libya and Morocco, using the

voluntary contributions available under the terms of Project 3 of the decision adopted by the Council of the European Union on 23 March 2012 (2012/166/CFSP) in the framework of the implementation of the European Union Strategy against Proliferation of Weapons of Mass Destruction that was adopted on 12 December 2003. All other participants bore their own expenses incurred for the visit.

5. This report is presented by the Chairperson of the Council after consultations with the representatives of the Council in the delegation.

6. In preparation for the visit, the members of the Council delegation were briefed by the Permanent Representation of the United States to the OPCW on administrative and logistical arrangements, as well as on the programme of the visit.

Visit to the Pueblo Chemical Agent Destruction Pilot Plant

7. The members of the Council delegation arrived at the Pueblo Chemical Depot (PCD) on 24 March 2015.

8. Upon arrival at Pueblo, the Council delegation was welcomed by Department of Defense and site officials. A number of detailed presentations followed. The first, by Colonel Nathaniel W. Farmer, Military Deputy Director of the United States Army Chemical Materials Activity (CMA), provided an overview of the CMA, which is responsible for the safe storage of the entire United States chemical weapons stockpile and the destruction of the chemical warfare material not classified as part of the United States unitary chemical stockpile.

9. Colonel Farmer detailed the four areas of responsibility of the CMA (store, provide regulatory compliance, protect, and eliminate recovered chemical weapons), amongst which the safe storage of the United States chemical weapons stockpiles at the two remaining sites—PCD and Blue Grass Chemical Activity—represents a top priority. CMA's responsibilities include the physical security of the chemical weapons stockpiles, safety maintenance, waste management, environmental compliance, emergency preparedness, and munitions transport for destruction.

10. Colonel Farmer also provided information about the distribution of the chemical weapons stockpile by location and the percentage of chemical agent remaining to be destroyed. It was highlighted that the CMA had been responsible for the destruction of the chemical weapons stockpiles at seven (Johnston Atoll, Aberdeen, Anniston, Newport, Pine Bluff, Tooele, and Umatilla) out of nine original storage locations. This represents 89.75%, or 24,924 metric tonnes (MTs) of declared agent. The destruction of the remaining stockpiles at the Blue Grass and Pueblo facilities remains the responsibility of the Assembled Chemical Weapons Alternatives (ACWA) programme.

11. The CMA is also responsible for the destruction of newly recovered munitions which, after having been assessed and confirmed as chemical weapons, are included in supplemental declarations and destroyed in full compliance with the Chemical Weapons Convention (hereinafter "the Convention").

12. Colonel Farmer stated that the United States works closely with the Secretariat to meet all requirements under the Convention, and will continue to provide safe storage

of the remaining chemical weapons until their destruction, while protecting the workforce, the public, and the environment to the maximum extent. At the same time, the CMA considers that retaining and relocating the workforce from successfully closed CMA sites remains a key activity; this approach also allows knowledge and technical experience to be shared with the ACWA personnel. The CMA will continue to meet its destruction obligations and fulfil its mission while managing the impact of fiscal constraints.

13. In the presentation that followed, Mr Conrad F. Whyne, Programme Executive Officer for the ACWA programme, provided an overview of the ACWA programme that was established in 1996 under a mandate from Congress in order to identify alternatives to incineration for the destruction of assembled chemical weapons. Following a comprehensive process of research into various technologies that involved numerous governmental agencies, the chemical industry, and the public, alternative technologies were officially selected in late 2002 for Pueblo (neutralisation followed by bio-treatment) and early 2003 for Blue Grass (neutralisation followed by supercritical water oxidation (SCWO)). Contracts were awarded for the design, construction, systemisation, operation, and closure[1] of the facilities to a Bechtel-Pueblo Team located in Pueblo and a Bechtel-Parsons joint venture for Blue Grass.

14. As the safety of the workforce and local community is paramount for the ACWA programme, the focus during the design and construction phases at these facilities has lain on establishing a safety culture across the workforce, at all levels, that will continue throughout the subsequent phases of operations, as well as closure. In fact, it was mentioned that the emphasis on safety had resulted in no lost workdays and a lower-than-average recordable incident rate, which in turn had had an impact on reducing timelines.

15. Mr Whyne underscored the fact that the ACWA has established a culture of transparency and openness and has a robust public involvement programme, with a view to educating the communities to increase their awareness and knowledge of chemical weapons destruction efforts. The public outreach teams at Pueblo and Blue Grass ensure that stakeholders have access to information through established outreach offices, community events, and speakers' bureaus. In addition, the ACWA website offers programme information and a forum for stakeholders to provide feedback, while social media tools (Facebook, Twitter, YouTube, and Flickr) and monthly e-newsletters provide additional opportunities for engagement and updates on the destruction efforts.

16. With respect to the programme schedule, Mr Whyne stated that the design, construction, systemisation, and operations represent a long-term commitment. Under the current acquisition programme baseline, Pueblo would complete destruction in November 2019 and Blue Grass in September 2023. Construction work has been completed at Pueblo, while at Blue Grass it is expected to be completed in the summer of 2015. At both sites, systemisation has been initiated during the

[1] The closure process involves decontaminating, dismantling, and demolishing the chemical agent disposal equipment and sometimes demolition of buildings.

construction phase and is at 75% at Pueblo and at 25% at Blue Grass. The destruction of chemical weapons is planned to commence in December 2015 at Pueblo and in April 2020 at Blue Grass.

17. It was underscored that, based in part on lessons learned from the baseline incineration facilities, and in view of the risks that may affect the successful and timely conclusion of the programme, the ACWA had investigated the practicality of augmenting the primary destruction process at each site with explosive detonation technologies (EDTs) for problematic munitions that could not otherwise be safely processed through the main facility. The decision was made to use the Explosive Destruction System (EDS) to destroy problematic munitions at PCAPP and use the Static Detonation Chamber (SDC) to destroy problematic munitions at BGCAPP.

18. Mr Whyne concluded by stating that the ACWA programme was fully committed to destroying the chemical weapons stockpiles at Pueblo and Blue Grass as soon as practicable, while maintaining the safety of the personnel and surrounding communities as the highest priority. While drawing upon the experience at other United States chemical weapons destruction facilities and working to meet the challenges of employing unique processes and equipment at these sites, the ACWA will also continue to assess the effects of budget decisions on the chemical destruction efforts.

19. Colonel Michael S. Quinn, the Commander of the PCD, provided an overview of the depot, the mission of which is to safely secure and store the chemical weapons stockpile while protecting the workforce, the public, and the environment, to set the conditions for stockpile destruction, and to prepare for the closure of the depot.

20. Colonel Quinn briefed the Council delegation on the history of the depot, which was established in 1942 and consists of 1,136 structures. The first chemical weapons were received at the PCD in 1952, having been produced at Rocky Mountain Arsenal, Denver, Colorado. The depot has had numerous other missions in addition to chemical weapons storage, such as the maintenance of tanks and wheeled vehicles, army bridging material, and army missile systems.

21. The Chemical Limited Area (CLA) is an enclosed fenced area with added security measures, used to store chemical weapons. The CLA contains 102 storage bunkers, called “igloos”, 80 of those containing HD munitions, 14 containing HD and HT munitions, four being used for the storage of secondary waste such as personnel protective equipment, contaminated wood pallets, and four being empty (two of them are used by chemical operations personnel for training and two are condemned).

22. The PCD stores 780,078 agent-filled artillery munitions, representing 8.5% of the original chemical weapons stockpile of the United States, in four configurations: boxed 105mm cartridges, reconfigured 105mm projectiles, palletised 155mm projectiles, and boxed 4.2-inch mortar rounds.

23. Since safety and emergency response are essential at chemical weapons storage sites, Chemical Stockpile Emergency Preparedness Programme (CSEPP) exercises are conducted annually with the participation of other army agencies, the Department of Homeland Security, and the Federal Emergency Management Agency (FEMA), as well as emergency management officials from the state of Colorado and the county of

Pueblo. The last such exercise was conducted in May 2014. To prepare for such exercises, chemical accident/incident response and assistance exercises are also conducted on a quarterly basis to ensure readiness for emergency response.

24. Colonel Quinn mentioned in his briefing the important role of the PCD in respect of its involvement in local community events, such as the Colorado Demilitarization Citizens' Advisory Commission (CAC), Restoration Advisory Board (RAB), Retired Old Men Eating Out (ROMEO) Club, Veterans' Day Parade, and Avondale/Boone community events.

25. Finally, Colonel Quinn stressed that in accordance with the Convention, the PCD is subject to systematic inspections by the OPCW. There have been 17 chemical weapons storage facility inspections since 1997, the last of which was in September 2014.

26. Following the presentations, the Council delegation visited two storage structures (bunkers) containing palletised 155mm and unboxed 105mm HD-filled projectiles, respectively.

27. A presentation followed, given by Mr Greg Mohrman, PCAPP Site Project Manager, starting with a brief background of the project, which will destroy 2,371 MTs of mustard agent stored in three different types of munitions—105mm and 155mm projectiles and 4.2-inch mortars—using neutralisation followed by bio-treatment. In September 2002, the Bechtel-Pueblo Team was awarded the systems contract to design, construct, systemise, pilot test, operate, and close the plant. Located within the current boundaries of the depot, the PCAPP includes a number of buildings for various purposes including energetics removal, agent processing, temporary munitions storage, bio-treatment, entry control, utilities, laboratory, personnel maintenance, and other support tasks.

28. Mr Mohrman indicated that one of the most important components of the project is safety and that the PCAPP has been recognised as one of the safest construction sites in the United States, having been awarded in 2009 "Star Status"—one of the highest levels of recognition—for safety practices in the United States Department of Labor Occupational Safety and Health Administration (OSHA) Voluntary Protection Program (VPP). The PCAPP was also recommended for its second consecutive Star Status in November 2014, with official status to be awarded in April 2015. As at 1 January 2015, the PCAPP had safely worked more than 5.9 million hours without lost time injury.

29. Mr Mohrman further explained the layout of the PCAPP and provided a detailed explanation of the destruction technology that will be employed at the PCAPP. Munitions processing starts with the removal by robotic equipment of energetic components, including the fuse and the burster, as removing these parts first makes the remaining processes safer. Once removed, the energetics will be disposed through the SDC, a non-contiguous part of the PCAPP located on the Anniston Army Depot, Alabama. Once the energetic components are removed, the weapon body containing chemical agent will be robotically accessed and the agent washed out with pressurised water. The mustard agent will be mixed with additional water and a caustic solution. The resulting product from this process, called hydrolysate, will go through the

bio-treatment process, which consists of large tanks containing microbes that digest and further break down the solution. Water released from the process will be recycled, leaving various salts and bio-sludge. The bio-sludge, which is made up of microbe waste products and other bacterial matter, will be filtered to remove water and shipped off site to a permitted treatment, storage, and disposal facility. The final step of the process is treating the munitions metal parts to allow for recycling; this is achieved by heating them to 1,000° F (approximately 535 to 540° C) with electric inductive heaters for 15 minutes, ensuring that any residual agent contamination is destroyed.

30. Mr Mohrman informed the Council delegation that all major construction activities at Pueblo were completed in December 2012. Systemisation activities continue with the projectile mortar disassembly machines, the munitions washout system, and the munitions treatment units, as well as the agent collection and neutralisation system. At the time of the visit, systemisation had reached 75% completion. Concurrent with ongoing systemisation activities, the PCAPP is undergoing operational readiness reviews that will confirm the preparedness of the personnel, equipment, and procedures for the start of operations. This process will lead to plant optimisation by performing integrated testing, contingency exercises, and demonstrations. The end result will be the declaration of the readiness of the PCAPP, once external stakeholders have concurred with the declaration.

31. The Council delegation was further informed about the challenges, as well as the solutions, envisaged to meet challenges at the PCAPP. Amongst those challenges, Mr Mohrman referred in particular to problematic munitions (leakers and/or rejects),[2] which have proven to be difficult to process by automated equipment and for which the use of an EDT will provide greater safety for the personnel involved and will streamline efforts at the PCAPP. An environmental assessment concluded in August 2012 that the installation and operation of an EDT will have no significant environmental impact, and in April 2013 the ACWA selected to use the EDS to destroy problematic chemical weapons at the PCAPP. In March 2015, the PCAPP EDS began the agent destruction activities, officially restarting the United States destruction programme.

32. Mr Mohrman further mentioned in his briefing that the PCAPP is also reviewing a proposal to accelerate the start of operations by delivering over 125,000 boxed munitions to the PCAPP to remove the propelling charges, re-packaging these items to a palletised configuration, and returning the items to storage for later delivery and destruction at the PCAPP. This proposal will involve 105mm projectiles and 4.2-inch mortar rounds. Mr Mohrman stressed that this process will reduce risk during operations by simplifying the unpacking of the munitions for introduction into the plant's automated disassembly systems.

33. One other challenge referred to is the staffing of nearly 1,100 employees needed to safely and compliantly destroy the chemical weapons at the PCAPP. In this respect, it was underscored that the PCAPP would benefit greatly from hiring experienced workers who were departing from all destruction sites that had completed operations. These workers are familiar with and have been trained in the safe handling and

[2] Munitions that cannot be processed through the munition washout system.

destruction of chemical weapons, which will assist the PCAPP in avoiding problems or delays during systemisation and destruction operations. The experience of the PCAPP workforce is already being demonstrated by the quality of the contingency exercises being run by plant personnel as they ready themselves for the start of operations.

34. Finally, the closure of the Chemical Demilitarization Training Facility (CDTF) at Aberdeen/Edgewood, Maryland, presented the PCAPP with the challenge of providing continuous training and certification for over 1,100 plant employees. As the plant draws closer to the start of destruction operations, the hiring and training of the operations workforce becomes a top priority. To this end, a new training facility was established in February 2013 that will offer the venue for PCAPP employees to receive the necessary training to ensure their own safety and that of the community and the environment, as well as prepare them for the unique roles they play in the chemical weapons destruction process. Training areas for new employees will cover initial safety training, environmental compliance awareness, plant familiarisation, toxic entry training and the use of the demilitarisation protective ensemble (DPE), and training on first-of-a-kind demilitarisation equipment. In addition, operator qualification training on plant systems, which includes the projectile mortar disassembly machine and munitions washout system, control room operator, and munitions treatment unit training, is conducted at the training facility. To date, the facility has completed over 12,000 classes that include contractor and Government personnel.

35. Following the presentation made by Mr Mohrman, the Council delegation participated in a tour of the PCAPP, during which the delegation received additional comprehensive details regarding the process and destruction technology, and was able to observe the current status of activities. The site tour allowed the members of the Council delegation to familiarise themselves with the layout of the facility and the destruction process. The Council delegation had the opportunity to access the laboratory, the treaty office facility, the control and support building, the munitions service magazines and corridor, the enhanced reconfiguration building, the agent processing building, the agent filtration area, and the bio-treatment area.

36. The Council delegation was given the opportunity for questions, which covered a variety of general topics as well as very specific technical queries. Discussions were conducted in an open and transparent manner.

37. To answer a question related to the transfer of energetics for their disposal at the Anniston Army Depot, Alabama, the representatives of the United States responded that the PCAPP will ship energetic components removed from 155mm and 105mm projectiles and 4.2-inch mortars and destroy these components in an irreversible manner using the SDC located at the Anniston Army Depot, Alabama. Once the energetic components have been removed from the munitions at the PCAPP they will be monitored to ensure that agent levels are below 0.2 Vapor Screening Limit (0.0006 mg/ m^3), both boxed and palletised. The components will be moved to one of the PCAPP storage structures for later shipment to the SDC, or shipped directly to the SDC. The energetic components may be placed in standard packages such as cardboard boxes or plastic loading trays of sufficient strength for mechanical handling.

38. In reply to a question regarding more detailed information on the VPP, the United States representatives explained that the programme recognises employers and workers in the private industry and federal agencies who have implemented effective health and safety management systems and maintain injury and illness rates below national Bureau of Labor Statistics averages for their respective industries. In the VPP, management, the workforce, and the OSHA work cooperatively and proactively to prevent fatalities, injuries, and illnesses through a system focused on hazard prevention and control, worksite analysis, training, management commitment, and worker involvement. To participate, employers must submit an application to the OSHA and undergo a rigorous onsite evaluation by a team of health and safety professionals.

39. Regarding the closure process of former destruction facilities, the representatives of the United States responded that before the closure process begins at a site, the Centers for Disease Control and Prevention (CDC), the Department of Defense, and site managers carefully plan and develop standard operating procedures, and conduct safety reviews. The closure process involves dismantling, decontaminating, and demolishing the chemical agent destruction equipment and buildings. It also requires consideration of how the property might be used in the future and restoring it to the standards described in the destruction facility's environmental permit. Decontamination methods are designed specifically for each facility's type of equipment and buildings and their level of contamination. What happens to a facility's equipment depends on past levels of contamination and on whether the equipment can be decontaminated and reused. Equipment might be removed and reused, removed and disposed of as hazardous waste, or left in place and demolished along with a facility's structures. Equipment is dismantled as needed, so that interior surfaces can be checked for contamination. Air monitoring and chemical analyses continue during the decontamination process to verify that all materials are successfully decontaminated. After the buildings and remaining equipment are decontaminated, the entire facility is demolished. Air monitoring and chemical analyses continue after demolition to verify that all materials have been successfully decontaminated. After demolition, soil at the building sites is analysed and cleaned up as needed. This ensures that the property is restored to the standards specified in the facility's environmental permit.

40. With respect to compensation provided to the local community at Pueblo, the United States representatives clarified that there is no direct financial compensation being made; however, resources are invested in the local hospitals and fire departments, as well as in training programmes in coordination with response personnel in order to provide adequate support given the nearby presence of the chemical weapons destruction facility.

41. With respect to the decision regarding the selection of the destruction technologies for the PCAPP and the cost-effectiveness of such a decision, it was stated that decisions were based to a large extent on public input, and that safety was the primary consideration. The PCAPP uses hot water to neutralise the chemical agent and effectively destroy the mustard agent molecules; the resulting hydrolysate is mostly water and thiodiglycol, a common industrial chemical that is readily biodegradable.

42. With regard to maintaining the knowledge and expertise of the personnel, it was stated that experienced members of the workforce have been employed at the ACWA sites in an effort to address the shortening of the construction and destruction schedule while maintaining an exemplary safety record. At the same time, efforts are being put into developing a correct balance between using experienced personnel and offering job opportunities to the local communities.

43. During the discussions that followed, the United States representatives indicated that the United States remains fully committed to completing the destruction of its chemical weapons stockpiles as soon as possible, with due regard to ensuring the safety of the workforce, surrounding communities, and the environment.

44. The Council delegation was impressed by the progress made in regard to the construction and systemisation and commended the efforts of those who made this possible.

Visit to the Pueblo Chemical Agent Destruction Pilot Plant – Explosive Destruction System

45. The Council delegation proceeded with its visit and arrived at the PCD on 25 March 2015.

46. A presentation was given by Mr Bruce Huenefeld, PCAPP EDS Site Project Manager, starting with a brief background of the PCAPP EDS mission, which will destroy stored overpacked mustard munitions and Department of Transportation cylinders, as well as rejects, leakers and contaminated bursters from PCAPP operations in a safe and efficient manner that is protective of human health and the environment.

47. Mr Huenefeld informed the Council delegation that 560 HD and HT overpacked items and Department of Transportation cylinders are planned to be destroyed in the first campaign, which is scheduled to operate for approximately 39 weeks. Items may be added to the follow-on campaigns if other leaking munitions are discovered in storage during routine surveillance activities. All overpacked leakers and rejected munitions will be destroyed in the succeeding three campaigns associated with the PCAPP main plant operations.

48. Mr Huenefeld further explained the layout of the PCAPP EDS site and provided a detailed explanation of the destruction technology employed. The EDS unit is a mobile chemical weapons destruction technology designed to destroy explosively and non-explosively configured chemical weapons and their chemical weapons agent fill. The simple design comprises an explosive containment vessel, as well as a chemical reagent supply and transfer system. Within the explosive containment vessel, a linear-shaped charge is used to breach the munition wall, detonate or penetrate the burster tube, and access the chemical weapons agent fill. After the munition wall is breached, chemical reagents are added, and the explosives containment vessel contents are mixed. Following chemical weapons agent fill destruction, the explosives containment vessel is emptied of liquid and solid waste material and prepared for subsequent missions. Waste is sampled and stored for final disposal in accordance with environmental regulations.

49. The utilisation of an explosive destruction technology, such as the EDS, has been a part of the PCAPP design since its inception. The EDS has a well-documented history of safe and successful operations at various sites throughout the United States, to include utilisation in Colorado at the former Rocky Mountain Arsenal, where it was used to destroy a number of recovered non-stockpile chemical munitions. The EDS was among the explosive destruction technologies evaluated in a formal environmental assessment. This assessment, conducted in compliance with the National Environmental Policy Act, found that the installation and operation of an explosive destruction technology, to include the EDS, would have no significant environmental impact. The PCAPP EDS was fabricated by Sandia National Laboratories and tested by the Edgewood Chemical Biological Center (ECBC) located at the Aberdeen Proving Ground, Maryland. The ECBC personnel are the Government staff who will operate the PCAPP EDS.

50. Mr Huenefeld informed the Council delegation that all the construction is complete at the PCAPP EDS site. The pre-operational survey was completed in February 2015 and confirmed the readiness of the people and plant. A declaration of readiness was submitted to the external stakeholders and approved in March 2015. Agent operations subsequently commenced in March 2015, just prior to the Council delegation's visit.

51. Finally, the PCAPP EDS represents a technological step forward in the way the United States destroys recovered chemical warfare material. This advancement entails incorporating design and technological changes to reduce the processing time for each munition. In order to properly staff the PCAPP EDS, personnel are trained in identifying the major subsystems, performing preventive maintenance checks and services, performing start-up and operating procedures, conducting troubleshooting operations, transporting munitions, processing selected munitions, waste analysis, and contingency responses.

52. Following the presentation made by Mr Huenefeld, the Council delegation conducted a tour of the PCAPP EDS, during which the delegation received additional comprehensive details regarding the process and destruction technology, and was able to observe the destruction activities being conducted at this facility. The site tour allowed the members of the Council delegation to familiarise themselves with the layout of the facility and the destruction process. The Council delegation had the opportunity to access the Treaty Trailer and the Command Post. Since destruction operations were in progress, the Council delegation could not physically enter facilities contained within the chemical limited area but did observe, through the designated cameras, an actual destruction explosion.

53. The Council delegation also met with the OPCW inspection team that is deployed at the PCAPP EDS to verify that the destruction of chemical weapons is carried out in accordance with the provisions and requirements of the Convention.

54. Many opportunities were provided for discussions during the visit to the PCAPP EDS and the Council delegation used these occasions to clarify further questions it had with respect to the United States chemical destruction programme.

55. Regarding a question related to the neutralisation of the chemical weapons agent fill in the EDS, the United States representatives responded that after detonation,

chemical reagents are added to the explosives containment vessel to destroy the chemical weapons agent fill and decontaminate the mutilated metal parts. The munition contents undergo a chemical reaction within the mechanically sealed explosives containment vessel. Water and monoethanolamine (MEA) are the primary reagents being used to destroy chemical weapons agent fill. Additionally, a steam generator will be used to significantly reduce the time it takes to heat the explosives containment vessel for both the neutralisation step and the subsequent hot water rinse. Since the vessel is heated from the inside, less energy is consumed heating the steel structure, the outer wall stays cooler, and there is less cooling load at the end of the process. When the destruction/decontamination process is complete, treatment waste is emptied into commercial waste containers and staged in accordance with state and federal regulations.

56. With respect to a question related to the employment of the EDS, the United States representatives explained that the basic operation of the EDS has remained the same since initial use. At its core is a leak-tight vessel in which munitions are placed. The EDS is designed to safely destroy a few damaged munitions at a time, possibly in populated areas. The design emphasises its transportability, flexibility, redundancy, surety of destruction and simplicity of manual operation—not an aptitude for rapid processing.

57. In concluding its visit to the PCAPP EDS, the Council delegation expressed its appreciation for the hospitality shown to its members throughout the visit, as well as the transparency and openness that governed all discussions, and concluded that the visit was useful and allowed for better understanding of the United States destruction programme, current and future challenges, and the path forward.

Meeting with the Citizens' Advisory Commission

58. As part of the visit to Pueblo, the Council delegation met with members of the local CAC.

59. The Colorado CAC serves as a bridge between the community and the government, by providing a forum for exchanging information on chemical weapons, offering opportunities for public involvement, and representing community and state interests to the United States Army and to other organisations involved in the chemical weapons destruction programme. CAC members are appointed by the governor of each state and come from diverse backgrounds, such as health care, construction, hazardous waste management, and engineering.

60. During the meeting, the Council delegation exchanged views with respect to the role of the CAC and the involvement of local communities in decisions related to the chemical destruction programmes, which in Pueblo have had a significant impact on project activities. The Council delegation learned that the CAC holds regular meetings with representatives of the United States Army, the facility contractors, and state representatives in order to exchange information about chemical weapons disposal and to discuss its impact on local communities. Moreover, the Council delegation was informed that the CAC can have a significant impact on project activities within a particular state. For example, the recommendations provided by

the Colorado CAC were decisive in selecting the destruction technology at the PCAPP, including the on-site treatment by biodegradation of the hydrolysate.

61. The meeting with the members of the CAC was carried out in an open and transparent manner. Discussions emphasised that public input and involvement have represented a cornerstone of the ACWA programme and allowed the Council delegation to better recognise how safety and environmental protection represent important features of the United States chemical weapons destruction programme.

Meetings in Washington, D.C.

62. On the last day of the visit to the United States, the Council delegation held discussions in Washington, D.C. with Ms Rose Gottemoeller, Under Secretary of State for Arms Control and International Security; Ms Laura Holgate, Senior Director for Weapons of Mass Destruction Terrorism and Threat Reduction, National Security Council; and Mr Peter I. Belk, Director for Chemical and Biological Security Policy, National Security Council.

63. All these officials called the attention of the Council delegation to the fact that the United States values the Convention as an important instrument for peace and security and is committed to achieving the complete destruction of the remaining chemical weapons stockpile in line with the obligations undertaken. They underscored that the destruction of the remaining chemical weapons represents a priority for the United States and, to this end, appropriate resources will continue to be allocated to meet the timelines.

64. The role of local communities and their continuous involvement in the decisions taken with respect to the destruction of chemical weapons at Pueblo was also reiterated throughout the discussions.

65. Finally, it was underscored that the United States will continue to do its utmost to expedite the schedule of destruction, while continuing to meet safety and environmental regulations and, at the same time, maintaining the practice of providing accurate and timely details with respect to the overall progress of its chemical weapons destruction programme.

General observations by the delegation and conclusions

66. The Council delegation completed its visit to the PCAPP and PCAPP EDS satisfied that the United States attaches great importance to meeting its obligations under the Convention, and remains fully committed to completing the destruction of its remaining chemical weapons stockpile in a safe and environmentally sound manner in the shortest time practicable. In this respect, the Council delegation was confident that the United States would complete the destruction of its remaining stockpile within the current timelines.

67. The Council delegation noted that the United States has destroyed to date more than 89.75% of its declared chemical weapons stockpile. The delegation also noted the 75% completion of the systemisation work at the PCAPP, as well as commencement of the destruction operations at PCAPP EDS, to augment the destruction efforts at the

PCAPP main plant, designed for the safe destruction of problematic chemical munitions.

68. The Council delegation recognised that measures have been put in place to shorten the construction and systemisation schedule at the PCAPP by, inter alia, using a combination of new technologies and equipment, contract incentives, and transfer of experienced personnel, as well as by augmenting the main plants' capacities with the explosive destruction technologies designed for the safe destruction of problematic chemical munitions.

69. The Council delegation acknowledged the efforts that have been made at the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP), Richmond, Kentucky, to move forward through the systemisation activities in parallel with ongoing construction work. In particular, the delegation noted that a staged approach with respect to systemisation has maximised efficiency and allowed experts to identify and solve problems at an early stage.

70. The visit to Pueblo and, in particular, the meetings with the members of the Colorado CAC, enabled the Council delegation to better understand the emphasis placed by the United States on safe and environmentally friendly operations. Moreover, the Council delegation noted that, as reported by the United States representatives, domestic legislation, including state environmental regulations, and the recommendations put forward by local citizens, have had a major impact on selecting technologies and setting schedules with regard to completing the destruction of the remaining chemical weapons stockpile.

71. The meetings with officials held in Washington, D.C. also highlighted the United States' firm commitment to continuing to explore options to accelerate the current schedule for the destruction of the remaining chemical weapons stockpiles. The Council delegation was reassured that, to this end, the United States has allocated the necessary financial resources to the implementation of their chemical weapons destruction programme.

72. The Council delegation considers that the visit to Pueblo was useful, in that it provided a better understanding of the human effort, technical challenges, regulatory constraints, and financial expenditures surrounding the destruction of chemical weapons in the United States.

73. The Council delegation was very appreciative of the spirit of cooperation, openness, and transparency that marked the visit to Pueblo, as well as the detailed discussions with the United States representatives, including during the high-level meetings in Washington, D.C.

74. The Council delegation confirms the relevance of visits to destruction facilities by delegations representing the Council and recommends that they continue, as required by the decision on the final extended deadline of 29 April 2012 taken by the Conference at its Sixteenth Session (C-16/DEC.11).

Annexes (English only):

Annex 1: The United States of America – Program for the Conduct of the 2015 OPCW Executive Council Visit to United States Chemical Weapons Destruction Facilities, 22 – 27 March 2015

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Annex 6: Comments from the United States of America on the Report of the Visit by the Chairperson of the Executive Council and Representatives of the Executive Council to the Pueblo Chemical Agent Destruction Pilot Plant and Pueblo Chemical Agent Destruction Pilot Plant – Explosive Destruction System, 22 – 27 March 2015

Annex 1

THE UNITED STATES OF AMERICA
PROGRAM FOR THE CONDUCT OF THE 2015 OPCW EXECUTIVE COUNCIL VISIT TO UNITED STATES CHEMICAL WEAPONS DESTRUCTION FACILITIES
22 – 27 MARCH 2015

The Sixteenth Conference of the States Parties agreed that visits to chemical weapons destruction facilities should take place to facilitate a greater understanding of States Parties destruction programs. The United States of America invites the Executive Council (EC) to conduct its 2015 visit to the Pueblo Chemical Agent-Destruction Pilot Plant, Colorado and to the Pueblo Chemical Agent-Destruction Pilot Plant Explosive Destruction System, Colorado. The United States (U.S.) has begun consultations with the Chairman of the Executive Council to develop the details of the visit. In order to provide transparency to the consultations, the U.S. presents this paper to explain the program and actions that must take place prior to and during the visit.

1. Pre-Arrival to the United States

(a) The maximum number of participants in the Executive Council delegation, to include invited observers, is limited to 15 persons.

(b) Individual replacements must be kept to a minimum and visitors cancelling their participation within 14 days of the visit cannot be replaced.

(c) Individuals requiring visas to enter the U.S. must obtain them through their customary diplomatic channels.

(d) Visitors will coordinate individual travel arrangements directly with the designated Technical Secretariat (TS) Point of Contact (POC).

(e) To facilitate medical and logistical arrangements, request the TS POC consolidate documents and required information listed on the attached spreadsheet and provide the documents to the U.S. National Authority no later than March 2, 2015.

(f) All briefings will be in English, with no interpretation provided by the U.S.

(g) All costs incurred with respect to hotel accommodations, air transport expenses, and meals will be paid by each individual.

2. International Arrival and Departure and In-Country Air Travel

(a) International travel to and from the Washington-Dulles International Airport is the responsibility of each visitor. Arrival must be within the time period between 12:00 – 5:00 PM, March 22, 2015. Deviations outside of this timeframe must be coordinated 30 days in advance of the visit. It is recommended that all travellers arrive on the same flight if possible.

(b) Members of the delegation will be greeted at the Washington-Dulles International Airport and transported to the Hyatt Dulles Hotel. See section III. Lodging Requirements for further lodging information.

(c) Domestic U.S. air travel will be arranged through the TS travel office based on the flight information provided below. No deviations from the pre-arranged flights to or from the visit site will be allowed. The U.S. will not be responsible for individuals who miss the pre-arranged in-country flights.

Date	Flight	Departing	Arriving
March 23	United #1265	Washington-Dulles (IAD) 9:05AM	Denver International (DEN) 11:05AM
March 26	United #0291	Denver International (DEN) 9:56AM	Washington National (DCA) 3:25PM

(d) Due to the reduction in flight schedules in the United States and the extensive number of seats required on each flight, reservations on the above flights should be made as soon as possible but not later than February 20, 2015.

(e) Departure from the United States at the completion of the visit is the responsibility of each visitor.

3. Lodging Requirements

The U.S. has set aside a number of hotel rooms in the vicinity of the selected site as well as in the Washington, D.C. area. Each participant must coordinate with the TS POC to confirm individual rooms for each hotel no later than February 24. The rooms will be listed under "Executive Council Visit". Each visitor will be responsible for paying his or her hotel bill. Hotel costs listed below include all applicable taxes and are provided for your information.

Date	Location	Hotel	Cost	Contact name and #
March 22 (1 night)	Herndon, VA	Hyatt Dulles	$151.20	Penny Seward 703-793-6887
March 23-24 (2 nights)	Pueblo, CO	Courtyard Marriott	$92.72	Kim Chieppa 719-546-1234
March 25 (1 night)	Denver, CO	Hotel Monaco	$239.83	Karlyn Verseman 303-294-3021
March 26 (1 night)*	Washington, D.C.	Park Hyatt	$360.68	Jill Fox 202-419-6881

* Consultations in Washington will end on Friday mid-afternoon. Return flight arrangements must be communicated to the TS POC.

4. Ground Transportation

(a) Ground transportation will be provided by the U.S. for travel between airports, local accommodations, eating establishments, destruction sites and other meeting locations.

(b) Ground transportation will be provided from the Park Hyatt Hotel to Dulles International Airport for travellers wishing to depart the country on March 27 or March 28. Only one shuttle service will be provided per day.

5. Dining Requirements

(a) Visitors with special dietary needs must make individual requirements known to the TS POC.

(b) Menu selections must be completed and returned to the TS POC no later than March 6, 2015.

(c) Upon departure from the POE on March 23, the National Escorts will collect a lump sum, CASH, payment (U.S. Dollars) for the cost of meals and snacks for the visit from the TS POC. The total cost of the lump sum payment for each visitor will be communicated to the TS POC no later than March 11, 2015.

(d) It is recommended that visitors bring additional cash planning to purchase cocktails or other items.

6. Safety Requirements

(a) All visitors must complete a respirator medical questionnaire to determine ability to wear a respiratory protective device.

(b) All visitors must provide their U.S. shoe size for the issuance of safety shoes.

(c) All visitors entering the Chemical Limited Area will be issued an escape mask at Pueblo Army Depot.

(d) Visitors may be subject to a blood pressure check prior to entry into the Chemical Agent bunker.

(e) Visitors must bring any required medications with them.

7. Clothing and Grooming Requirements

(a) The following items are not allowed to be worn during the site tours: dresses, skirts, shorts, sleeveless shirts, running/tennis shoes, high heeled shoes, or open toed shoes.

(b) The escape respirator does not require visitors to be clean shaven.

(c) Visitors are asked to refrain from using perfume, aftershave, or cologne on the plant tour days to avoid interference with monitoring equipment.

(d) Safety shoes will be provided for the tours.

(e) It is recommended that visitors bring warm clothes for the tours as Pueblo can be cold in the early morning hours.

8. Public Affairs

(a) The U.S. will not include members of the visiting group in public affairs activities or put members of the visiting group in a position where they are expected to conduct media interviews during the course of the visit.

(b) A group photograph will be taken to commemorate the visit.

(c) No cameras or cell phones with cameras will be allowed on the sites.

(d) The U.S. requests that members of the visiting group reserve comment on the planning, conduct, or results of the visits until after the group's report is considered by the Executive Council.

Annex 2

THE UNITED STATES OF AMERICA
ITINERARY OF THE OPCW EXECUTIVE COUNCIL VISIT TO THE PUEBLO CHEMICAL AGENT DESTRUCTION PILOT PLANT AND PUEBLO CHEMICAL AGENT DESTRUCTION PILOT PLANT – EXPLOSIVE DESTRUCTION SYSTEM
22 – 27 MARCH 2015

Sunday, March 22

12:00 – 17:00	Arrive Washington Dulles International Airport (IAD), Virginia
	Transport to Hyatt Dulles Hotel
	Welcome and Check-In Hyatt Dulles Hotel

Monday, March 23

06:30	Breakfast
07:00	Depart Hotel
09:05	Depart Washington Dulles International Airport (IAD) - United #1265
11:05	Arrive Denver International Airport (DEN) (Ambassador Mikulak and Director of Verification Division join the delegation)
12:00	Depart Denver Airport and travel to Pueblo Boxed Lunch Enroute to Site
14:30	Arrive Marriott Courtyard Hotel / Check-In
17:45	Depart Hotel
18:00	Arrive the Center for American Values for Meet and Greet with Colorado Chemical Demilitarization Citizens' Advisory Commission
18:45	Depart Centre for American Values for Dinner
19:00	Dinner at Park East Restaurant Dress Code: Business Casual

Tuesday, March 24

06:30	Breakfast
07:30	Depart Hotel (transportation provided)
08:00	Arrive Pueblo Chemical Depot Treaty Building

08:25	Depart for Group Photograph
08:30	Group Photograph (Location TBD)
08:50	Return to Treaty Building
09:00	Welcome - Ambassador Robert P. Mikulak, United States Permanent Representative to the OPCW
	Welcome - Lieutenant Colonel Michael S. Quinn, Commander, Pueblo Chemical Depot
09:15	Chemical Weapons Demilitarization Program Overview and Chemical Weapons Storage Program Overview - Colonel Nathaniel Farmer, U.S. Army Chemical Materials Activity
09:40	Assembled Chemical Weapons Alternatives (ACWA) Program Overview - Mr Conrad Whyne, Program Executive Officer, Assembled Chemical Weapons Alternatives
10:15	Pueblo Site Briefing - Colonel Michael Quinn, Commander, Pueblo Chemical Depot
10:30	Break
10:45	Issuance of Personal Protective Mask
10:55	Depart for Storage Bunker
11:15	Tour of Chemical Weapons Storage Bunker
11:45	Return to Treaty Building
12:05	Lunch
12:45	Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) Orientation - Mr Greg Mohrman, PCAPP Site Project Manager
13:40	Issuance of Personal Protective Equipment (hard hats, safety glasses, and safety boots)
13:45	Depart for PCAPP
14:00	Tour of PCAPP
16:00	Return to Treaty Building
16:15	Break

16:30	Discussion/Q&A
17:00	Depart site and travel to hotel
18:30	Depart hotel for dinner
19:00	Social Time and Dinner at Union Depot Dress Code: Business Casual

Wednesday, March 25

06:30	Breakfast
07:00	Check-Out of Courtyard Marriott
07:15	Depart Hotel
07:45	Arrive Pueblo Chemical Depot
08:00	PCAPP Explosive Destruction System (EDS) Orientation - Mr Bruce Huenefeld, PCAPP EDS Site Project Manager
08:20	Depart for PCAPP EDS
08:40	Tour of PCAPP EDS
09:40	Return to Treaty Building
10:00	Break
10:10	Discussion/Q&A
10:40	Closing Remarks - Colonel Quinn
11:00	Lunch
12:30	Depart Pueblo Chemical Depot and travel to Colorado Springs
13:30	Tour of Olympic Training Centre
15:30	Depart Colorado Springs and Travel to Denver
16:30	Arrive Hotel Monaco / Check-In
19:10	Depart Hotel for Dinner
19:30	Dinner at 1515 Restaurant / Presentations Dress Code: Business Casual

Thursday, March 26

06:30	Breakfast
07:00	Check-out of Hotel
07:15	Depart Hotel for Denver Airport
09:56	Depart Denver International Airport (DEN) - United Flight #0291
15:25	Arrive Ronald Reagan Washington National Airport (DCA)
16:30	Travel to Park Hyatt Washington Hotel / Check-In

Friday, March 27

07:00	Breakfast
09:00	Check-out of hotel
09:15	Depart Hotel
09:30	Arrive Main State (C Street Entrance)
10:00	Executive Council Delegation meeting with Under Secretary of State for Arms Control and International Security - Rose Gottemoeller
10:30	Break
11:00	Meeting with National Security Council Officials - Ms Laura Holgate and Mr Peter Belk
12:00	Lunch provided at Department of State
13:00	Completion of Executive Council Visit, Return to Hotel
14:00	Shuttle departs for Washington Dulles International Airport

Annex 3

LIST OF MEMBERS OF THE OPCW EXECUTIVE COUNCIL DELEGATION WHO TOOK PART IN THE VISIT TO THE PUEBLO CHEMICAL AGENT DESTRUCTION PILOT PLANT AND PUEBLO CHEMICAL AGENT DESTRUCTION PILOT PLANT – EXPLOSIVE DESTRUCTION SYSTEM 22 – 27 MARCH 2015

Name	Representing
H.E. Mr Álvaro Marcelo Moerzinger Chairperson of the Executive Council & Permanent Representative of Uruguay	EC Chairperson and Latin America and Caribbean Regional Group
Mr Philippe Denier Director of the Verification Division	OPCW
H.E. Ms Maymouna Diop Sy Permanent Representative of Senegal	African Regional Group
Mr Zhaoyang Xu Deputy Permanent Representative of China	Asian Regional Group
H.E. Dr Christoph Israng Permanent Representative of Germany	Western European and Other States Regional Group
Mr Vasily Titushkin Deputy Permanent Representative of the Russian Federation	Eastern European Regional Group Russian Federation and Possessor State
Dr Ali Gebril Werfeli Permanent Representative of Libya	Libya and Possessor State
H.E. Mr Masaru Tsuji Permanent Representative of Japan	Observer
H.E. Mr Abdelouahab Bellouki Permanent Representative of Morocco	Observer
Mr Pieter van Donkersgoed Deputy Permanent Representative of the Netherlands	Observer
Mr Frantisek Pavlasek Chemical Demilitarisation Branch, Technical Secretariat	Technical Secretariat

Annex 4

LIST OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA HOSTING THE VISIT OF THE OPCW EXECUTIVE COUNCIL DELEGATION TO THE PUEBLO CHEMICAL AGENT DESTRUCTION PILOT PLANT AND PUEBLO CHEMICAL AGENT DESTRUCTION PILOT PLANT – EXPLOSIVE DESTRUCTION SYSTEM
22 – 27 MARCH 2015

Name	Representing
Ambassador Robert P. Mikulak United States Permanent Representative to the OPCW	United States Delegation
Dr Arthur T. Hopkins Acting Principal Deputy, Assistant Secretary of Defense Nuclear, Chemical and Biological Defense Programs	Department of Defense
Colonel Gary D Jenkins II Deputy Director, Strategic Stability, Strategic Plans and Policy, Joint Staff	Department of Defense
Mr Carmen J. Spencer Joint Program Executive Officer for Chemical and Biological Defense	United States Army
Mr James C. (J.C.) King Director of Munitions and Chemical Matters, Office of the Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health	United States Army
Colonel Nathaniel W. Farmer Military Deputy Director, U.S. Army Chemical Materials Activity	United States Army
Mr Conrad F. Whyne Programme Executive Officer, Assembled Chemical Weapons Alternatives	Assembled Chemical Weapons Alternatives
Mr Greg Mohrman PCAPP Site Project Manager, Assembled Chemical Weapons Alternatives	Assembled Chemical Weapons Alternatives
Lieutenant-Colonel Michael S. Quinn Commander, Pueblo Chemical Depot	United States Army
Mr Bruce M. Huenefeld PCAPP Explosive Destruction System Site Project Manager, Assembled Chemical Weapons Alternatives	Assembled Chemical Weapons Alternatives

Name	Representing
Mr Craig L. Vago Executive Council Visit Coordinator Defense Threat Reduction agency	Department of Defense
Ms Crystal A. Legaluppi Chief, Center for Treaty Implementation and Compliance, U.S. Army Chemical Materials Activity	United States Army
Mr Gregory M. Allen Treaty Manager, Assembled Chemical Weapons Alternatives	Assembled Chemical Weapons Alternatives
Ms Patricia Steranka Treaty Compliance Officer, Pueblo Chemical Depot	United States Army
Mr John Wallace PCAPP Treaty Compliance Coordinator	United States Army

Annex 5

THE UNITED STATES OF AMERICA

BRIEFING MATERIALS

Background information provided during the visit is available upon request at the Documentation Counter and through the OPCW external server.

Annex 6

COMMENTS FROM THE UNITED STATES OF AMERICA ON THE REPORT OF THE VISIT BY THE CHAIRPERSON OF THE EXECUTIVE COUNCIL AND REPRESENTATIVES OF THE EXECUTIVE COUNCIL TO THE PUEBLO CHEMICAL AGENT DESTRUCTION PILOT PLANT AND PUEBLO CHEMICAL AGENT DESTRUCTION PILOT PLANT – EXPLOSIVE DESTRUCTION SYSTEM 22 – 27 MARCH 2015

The United States of America informed the Secretariat that it had no comments on the report.

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