

UNITED STATES OF AMERICA

REQUEST FOR ESTABLISHMENT OF A REVISED DATE FOR THE PHASE 4 DEADLINE FOR THE DESTRUCTION OF CATEGORY 1 CHEMICAL WEAPONS (CW) IN THE UNITED STATES

The United States was granted an extension “in principle” of the April 29, 2007 Phase 4 deadline for destruction of all its declared Category 1 Chemical Weapons (CW) by the Eighth Conference of the States Parties in October 2003 (C-8/DEC.15). It was understood at the time of adoption of this decision that a proposal for a specific revised deadline would be submitted to the Executive Council by the United States not later than April 29, 2006, in accordance with Part IV (A), paragraphs 24 and 25 of the CWC’s Verification Annex. The United States hereby requests an extension of the 100% deadline to April 29, 2012.

The United States’ Record to Date

The United States has completed destruction of all initially declared Category 3 chemical weapons, met its 1% (Phase 1) and 20% (Phase 2) destruction deadlines prior to the required dates, and is working towards its 45% (Phase 3) destruction milestone date of December 31, 2007 as extended by the Conference of State Parties. The United States remains deeply committed to completely eliminating its entire stockpile of chemical weapons by the earliest possible date.

As of March 31, 2006 the U.S. has destroyed 10,103 metric tons of chemical agent since Entry into Force of the CWC, or 36.4% of its declared inventory of 27,768 metric tons of chemical agent. The United States has completed operations at two chemical weapons destruction facilities (CWDFs) at Johnston Island and Aberdeen, Maryland. Six other major facilities are currently operating. Site preparations are underway for construction of the final two CWDFs. The current status of operations at each of these sites is set out in Annex 1 of this document.

Detailed Explanation of the Reasons for the Proposed Extension

Several factors have contributed to the current extension request:

- Delays in obtaining approval of environmental permits necessary for the start of operations have occurred at all sites;
- Facility start-up delays have also resulted from additional community emergency preparedness requirements. This was most evident at Anniston where these preparations delayed operations for seven months and restricted operations for another two months.

- Conduct of maintenance activities. Overall, down time for maintenance has proven to be greater than originally projected. Incinerator refractory replacement, removal of slag residue, and accumulation in the DFS ash chutes are examples of maintenance activities that have caused the facilities to be shut down while maintenance is performed. Periodic shut downs to perform the maintenance are scheduled; however unanticipated delays will still occur. When a plant changes over from one agent campaign to the next the facility must be shut down for an extended period of time while it undergoes decontamination to an acceptable level. During this time the agent piping lines are flushed and the filters are replaced. Prior to beginning a new agent campaign, each site must again demonstrate its ability to safely destroy chemical agent to several regulatory organizations before being allowed to resume operations.
- Facility work stoppages to investigate and resolve problems. The rocket fires at Umatilla and Pine Bluff during the past year are an example of such stoppages. In the case of Umatilla, regulators required that the lines be shut down until the cause could be determined or assurance given of the safety of the plant. Initially this caused a three-week delay in operations; recent fires have typically resulted in operational down times of approximately 12 hours.
- Development of protocols to improve operational safety. Following an incident of worker exposure to a minute amount of GB agent at Tooele, the plant was required to produce a Safety Implementation Plan. This resulted in the facility being shut down for approximately eight months while the workforce trained and implemented the new safety plan.
- Deteriorating munitions proved more challenging to handle and safely destroy than anticipated. Gelled and crystallized agent in rockets required research into how best to destroy these items. In some cases the rocket pieces, with the crystallized agent intact, had to be fed into the deactivation furnace. This required lowered feed rates to prevent overloading of the furnace capacity and to avoid exceeding permitted levels as well as changes to regulatory permits;

United States CWDFs have encountered delays in initiating operations and lower-than-planned destruction rates across the board for the various reasons listed above. The combination of factors has been different at each site. The lessons learned from these delays have been incorporated at the start of each new facility. For example, challenges encountered with the glove boxes during the ABCDF neutralization operations were prevented at Newport; however Newport had delays unique to the disposal of VX that were not experienced during the destruction of the HD at Aberdeen. Similarly, many of the community preparations at Anniston were incorporated prior to the start-up at Umatilla. Absent this active process of incorporating lessons learned, delays at U.S. facilities would likely be substantially greater. The United States continues to improve its processes based on lessons learned as the program progresses.

Detailed Plan for Destruction During the Proposed Extension

The factors outlined above have resulted in longer than expected destruction operations: current projections indicate that four of the existing facilities will be operating past 2012. Additionally, the two facilities that have not yet been constructed (in Pueblo, Colorado and Bluegrass, Kentucky) are no longer expected to commence destruction operations earlier than 2011.

The United States plans to incorporate lessons learned and risk mitigation measures that may accelerate the schedule of chemical agent destruction, but at this time we do not expect to be able to meet the proposed April 29, 2012 deadline for destruction of the U.S. declared stockpile of CW. The Executive Council may wish to consider how best to address this situation closer to the deadline.

Table 1 (attached) depicts the actual and projected destruction of CW at each CWDF in metric tons by calendar year. In addition to the sites mentioned above, Table 1 includes data from the Chemical Agent Munitions Disposal System (CAMDS), and other CWDFs that destroy small quantities of CW. Table 1 also includes data from Johnston Atoll Chemical Agent Disposal System (JACADS), which destroyed 640 metric tons between Entry into Force and the completion of its destruction operations in 2000, and Aberdeen Chemical Weapons Destruction Facility, which destroyed 1472 metric tons and completed its destruction operations in February 2006. It is important to note, however, that these projections are only estimates and may be subject to significant adjustment; they should not be construed as milestones.

The United States has evaluated a number of alternatives to improve our CW destruction progress in order to meet the existing timelines, but has not identified at this time an option or combination of options that would result in the U.S. meeting the 2012 extended deadline. The United States continues to seek opportunities to improve our CW destruction progress in order to complete destruction with the goal of reaching the 2012 deadline or, if that is not possible, completing destruction as soon as feasible thereafter.

ANNEX 1

Status of each fixed Major Chemical Weapons (CW) Destruction Facility (All destruction amounts are as of March 31, 2006 unless otherwise noted)

Johnston Atoll Chemical Agent Disposal System has completed destruction of 640 metric tons of agents by November 2000.

Hawthorne has completed destruction of 458 metric tons of binary precursor chemicals contained in canisters in projectiles in July 1999.

Aberdeen Chemical Agent Disposal Facility (ABCDF) has completed destruction of 1472 metric tons of agent as of 17 February 2006.

The ABCDF began destruction operations in April 2003. This facility used neutralization followed by bio-treatment to destroy mustard agent (HD) drained from ton containers. The ABCDF destroyed 1,472 metric tons of chemical agent HD and completed operations in February 2006.

Anniston Chemical Agent Disposal Facility (ANCDF), Anniston, Alabama (total stocks to be destroyed: 2,045 metric tons)

The ANCDF began operations in August 2003. This facility uses an incineration technology. ANCDF has destroyed 397 metric tons of GB and completed its GB campaign in March 2006. The ANCDF is currently in a period of inactivity while preparing for the VX campaign.

Blue Grass Chemical Agent Disposal Pilot Plant (BGCAPP), Bluegrass, Kentucky (total stocks to be destroyed: 475 metric tons)

The BGCAPP is currently in the design phase. This facility is designed to use a neutralization technology followed by supercritical water oxidation to destroy GB, VX, and HD contained mostly in munitions. It is currently projected to begin destruction operations in 2011.

Newport Chemical Agent Disposal Facility (NECDF), Newport, Indiana (total stocks to be destroyed: 1,152 metric tons)

The NECDF began operations in May 2005. This facility uses a neutralization technology to destroy nerve agent (VX) stored in ton containers. Currently, the resulting hydrolysate is stored in intermodal containers awaiting a decision on off-site treatment/disposal at a commercial permitted treatment, storage, and disposal facility (TSDF). Difficulties have been encountered in obtaining environmental and regulatory approval to ship the hydrolysate to a commercial processor. Both the slower-than-anticipated processing times caused by analytical challenges related to the stabilizer (a

chemical additive used to prevent degradation of the agent) and the difficulties in securing approvals for second-stage disposal have contributed to the extended destruction schedule for this facility. If difficulties in securing approvals are not resolved in a timely manner, they may pose challenges to meeting the projected schedule for NECDF outlined in Table 1, and to meeting the 45% destruction milestone of December 31, 2007.

Pine Bluff Binary Destruction Facility (PBBDF), Pine Bluff, Arkansas (total stocks to be destroyed: 161 metric tons)

The PBBDF began destruction operations in December 2005. This facility uses neutralization technology to destroy DF and QL stored in drums, and containers. The resulting neutralent from ongoing destruction operations is being stored in holding tanks at a commercial treatment facility where it will be further processed at in 2007 using a Wet Air Oxidation Unit. This facility will complete the destruction of the United States' stockpile of binary weapons – our most modern, usable CW – by the end of 2007.

Pine Bluff Chemical Agent Disposal Facility (PBCDF), Pine Bluff, Arkansas (total stocks to be destroyed: 3,493 metric tons)

The PBCDF began operations in March 2005. This facility uses an incineration technology. The PBCDF has destroyed 166 metric tons of chemical agent GB. The PBCDF is currently in a maintenance period of inactivity for required piping change outs. It is expected to resume operations by 15 May.

Pueblo Chemical Agent Disposal Pilot Plant (PCAPP), Pueblo, Colorado (total stocks to be destroyed: 2,371 metric tons)

The PCAPP is currently in the design phase. This facility is designed to use neutralization followed by biotreatment to destroy mustard agent contained in munitions. It is currently projected to be operational in 2011.

Tooele Chemical Agent Disposal Facility (TOCDF), Tooele, Utah (total stocks to be destroyed: 12,115 metric tons)

The TOCDF began operations in August 1996 prior to Entry into Force. Between beginning of operations and Entry into Force TOCDF destroyed 232 metric tons of GB agent. This facility uses an incineration technology. The GB and VX nerve agent campaigns are complete with all stocks of GB and VX having been destroyed. TOCDF is currently in a period of inactivity preparing for destruction of mustard agent and performing needed updates due to the age of the facility. Complications have arisen due to contamination of some mustard agent stocks with mercury, which poses environmental and regulatory challenges. The mustard ton containers in storage are currently undergoing analysis to determine the extent and degree of the contamination. The scope of this contamination and the measures required to address it could affect our ability to meet the 45% deadline of December 31, 2007. The TOCDF has destroyed 6,489 metric tons of chemical agents since Entry into Force.

Umatilla Chemical Agent Disposal Facility (UMCDF), Umatilla, OR (total stocks to be destroyed: 3,374 metric tons)

The UMCDF began operations in September 2004. This facility uses an incineration technology. The UMCDF has destroyed 478 metric tons of chemical agent GB. In 2005, delays were encountered at this facility as a result of repeated fires in the explosive containment rooms during the rocket shearing process due to nitroglycerin migration in the rocket motors. Steps were taken to mitigate any safety issues. The UMCDF is currently destroying both GB rockets and MC-1 bombs.

TABLE 1: Timetable for each chemical weapons destruction facility¹

Weight of Agent Destroyed in MT by Calendar Years

CWDF	Annual Report Total Per Site 97-04 (MT)	CY 2005	CY 2006	CY 2007	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	CY2013-CY2017	Total from Declaration (MT)
Aberdeen Chemical Agent Disposal Facility ²	1113	344	15								1472
Aberdeen Proving Ground Chemical Transfer Facility/Munitions Assessment and Processing System	2	<1	<1	<1							2
Anniston Chemical Agent Disposal Facility	212	168	30	107	120	181	154	177	190	706	2045
Blue Grass Chemical Agent Destruction Pilot Plant	0	0						99	237	139	475
Dugway Proving Ground EDS CW Destruction Facility	<1	0		<1							<1
Johnston Atoll Chemical Agent Disposal System ³	640	0									640
Hawthorne/Aragonite	458	0									458
Newport Chemical Agent Disposal Facility ²	0	0	34	85	142	180	280	397	34		1152
Pine Bluff Binary Destruction Facility ²	0	0		161							161
Pine Bluff Chemical Agent Disposal Facility	0	158	87	138	56	63	71	468	797	1655	3493
Pine Bluff Explosive Destruction System	0	0	3	<1							3
Prototype Detonation Test and Destruction Facility	<1	<1									<1
Pueblo Chemical Agent Destruction Pilot Plant	0	0						654	981	736	2371
Recovered Chemical Weapons Destruction Facility	0	<1	<1								<1
Tooele Chemical Agent Disposal Facility ³	6374	115	100	1467	1314	226	588	551	376	1010	12121
Umatilla Chemical Agent Disposal Facility	11	252	331	103	84	78	61	125	53	2276	3374
Total	8810	1038	600⁵	2061	1716	728	1154	2471	2668	6522	27768⁴

¹ All numbers have been rounded to whole numbers. Please note that totals calculated solely based on these numbers may be affected by this rounding.

² Agent destruction numbers after secondary treatment

³ Agent destruction since EIF

⁴ Agent Declaration as of Supplemental Declaration #23 (Addition of site totals could be different due to rounding.)

⁵ 255 MT of CW has been destroyed this calendar year (as of March 31, 2006)