United States General Accounting Office

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Report to the Chairman, Committee on Armed Services, House of Representatives

March 2004

NONPROLIFERATION

Delays in Implementing the Chemical Weapons Convention Raise Concerns About Proliferation

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GAO-04-361

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Highlights

Highlights of GAO-04-361, a report to the Chairman, Committee on Armed Services, House of Representatives

Why GAO Did This Study

The Chemical Weapons Convention (CWC) bans chemical weapons and requires their destruction by 2007, with possible extensions to 2012. The CWC also seeks to reduce the proliferation of these weapons by requiring member states to adopt comprehensive national laws to criminalize CWC-prohibited activities. The Organization for the Prohibition of Chemical Weapons (OPCW) monitors the destruction of chemical weapons and inspects declared commercial facilities in member states.

GAO was asked to review (1) member states' efforts to meet key convention requirements, (2) OPCW's efforts in conducting inspections to ensure compliance with the convention, and (3) Russia's efforts to destroy its chemical weapons stockpile.

Agency Comments

The Departments of State and Defense commented that our report is not balanced because it does not provide more examples of successful CWC implementation. We believe the CWC has made important contributions to nonproliferation and further clarified this point in this report. State and Defense also expressed concern that we included a policy option to condition future U.S. aid on development of a credible Russian chemical weapons destruction plan. However, we provide several policy options, including increasing aid to Russia.

www.gao.gov/cgi-bin/getrpt?GAO-04-361.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Joseph Christoff, (202) 512-8979 or christoffj@gao.gov.

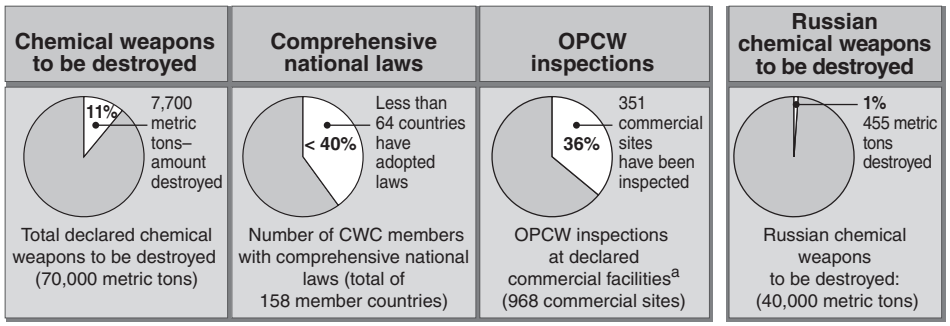
What GAO Found

The CWC has helped reduce the risks from chemical weapons, but CWC member states are experiencing delays in meeting key convention requirements as the CWC's goals have proven more difficult to achieve than anticipated. For example, we estimate that Russia and the United States will not complete destruction of their chemical weapons stockpiles until after the convention's deadline of 2012, if extended. Less than 40 percent of member states have adopted national laws to prosecute individuals that pursue CWC-prohibited activities. The Department of State also believes that China, Iran, Russia, and Sudan have not fully declared the extent of their chemical weapons programs.

The OPCW faces resource challenges in addressing the proliferation threat posed by commercial facilities and inspecting an increased number of military facilities that destroy possessor states' chemical weapons. Although the OPCW has conducted nearly 1,600 inspections in 58 member states since April 1997, more than half have been conducted at military facilities. About 36 percent of OPCW commercial inspections have taken place at facilities producing the most dangerous chemicals identified by the CWC. The OPCW recognizes that it must increase the number of inspections conducted at facilities that produce dual-use chemicals. Some of these facilities may pose a proliferation threat.

The lack of a credible Russian chemical weapons destruction plan has hindered and may further delay destruction efforts, leaving Russia's vast chemical weapons arsenal vulnerable to theft or diversion. As of September 2003, Russia had one operational destruction facility and had destroyed 1.1 percent of its 40,000 metric tons of chemical weapons. Russia's destruction efforts rely heavily on international assistance. Since 1993 international donors, including the United States, have obligated about $585 million for Russian destruction efforts while Russia has spent about $95 million.

Status of CWC Implementation and Russian Destruction Efforts 1997-2003



Sources: GAO analysis of Department of Defense and OPCW data..

[a]Includes only facilities that produce scheduled chemicals as defined by the CWC.

Contents

Letter

1

Results in Brief 2
Background 4
Member States Are Experiencing Delays in Complying with Key CWC Requirements 7
OPCW Conducts Inspections, but Significant Challenges Remain 15
Russia Faces Significant Challenges in Destroying Its Chemical Weapons 20
Observations 25
Agency Comments and Our Evaluation 26

Appendixes

Appendix I: Scope and Methodology 29

Appendix II: Location, Number, and Type of Inspections Conducted by the OPCW (April 1997 - December 2002) 32

Appendix III: International and Russian Funding for Chemical Weapons Destruction at Shchuch'ye 34

Appendix IV: Comments from the Department of State 39
GAO Comments 43

Appendix V: Comments from the Department of Defense 46
GAO Comments 50

Appendix VI: Comments from the Department of Commerce 52

Appendix VII: Comments from the Organization for the Prohibition of Chemical Weapons 53
GAO Comment 54

Appendix VIII: GAO Contact and Staff Acknowledgments 55
GAO Contact 55
Acknowledgments 55

Tables

Table 1: CWC Possessor States' Declared Stockpiles and Amount Destroyed 7
Table 2: OPCW Inspection Activity at Military Facilities 16
Table 3: OPCW Inspection Activity at Commercial Facilities 17
Table 4: Time Line for Destroying Russia's Chemical Weapons (as of December 2003) 20

Figures

Figure 1: Location of Russian Chemical Weapons Stockpiles 9
Figure 2: Location of U.S. Chemical Weapons Stockpiles 12
Figure 3: Chemical Weapons Destruction Facility at Shchuch'ye 35
Figure 4: Construction of the U.S. Destruction Building at Shchuch'ye, November 2003 36
Figure 5: Construction of the Russian Destruction Building at Shchuch'ye, November 2003 37

Abbreviations

CW	chemical weapons
CWC	Chemical Weapons Convention
DOC	discrete organic chemicals
DOD	Department of Defense
OPCW	Organization for the Prohibition of Chemical Weapons

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Accountability * Integrity * Reliability

United States General Accounting Office
Washington, D.C. 20548

March 31, 2004

The Honorable Duncan Hunter
Chairman
Committee on Armed Services
House of Representatives

Dear Mr. Chairman:

The Chemical Weapons Convention (CWC) entered into force in April 1997. It is the only multilateral treaty that seeks to eliminate an entire category of weapons of mass destruction within an established time frame and verify their destruction through inspections and monitoring. Specifically, the convention bans the production, possession, and use of chemical weapons and requires the destruction of chemical weapons stockpiles by 2007 with possible extensions to 2012. The CWC also requires member states to adopt national laws implementing the convention and to declare their military chemical weapons facilities and commercial facilities producing dual-use chemicals[1] to the Organization for the Prohibition of Chemical Weapons (OPCW). As of March 2004, 161 countries are CWC members, including the Russian Federation and the United States. At the CWC's first review conference in spring 2003, some member states expressed concern that many member states are not meeting their key CWC obligations. For example, Russia—the world's largest possessor of declared chemical weapons—is experiencing delays in destroying its stockpile.

In response to your request, we reviewed (1) member states' efforts to meet key CWC requirements, (2) OPCW's efforts to conduct inspections to ensure compliance with the convention, and (3) Russia's efforts to destroy its chemical weapons stockpile.

In conducting our work, we reviewed the CWC, analyzed verification and program documents from the OPCW, and met with OPCW officials. Additionally, we met with officials from the Departments of Commerce, Defense, and State, as well as member states' representatives to the OPCW at The Hague, the Netherlands. We also obtained information from Russian government officials and visited the U.S.-funded chemical weapons destruction facility site at Shchuch'ye in Russia. To assess the reliability of

[1]The term "dual use" applies to chemicals that have both military and commercial applications.

the data used in the report, we reviewed relevant documents and obtained necessary information from agency and government officials. For the purposes of our work, we determined that the data are sufficiently reliable. We performed our work from April 2003 through March 2004 in accordance with generally accepted government auditing standards. (See app. I for the details of our scope and methodology.)

Results in Brief

Member states are experiencing delays in destroying their chemical weapons stockpiles, adopting comprehensive national laws to criminalize the possession and use of chemical weapons, and submitting timely and accurate declarations of their CWC-related activities. While the CWC has played an important role in reducing the risks from chemical weapons, the CWC's nonproliferation goals have proven more difficult to achieve than originally anticipated. Specifically, only 11 percent of the 70,000 metric tons of declared chemical weapons worldwide has been destroyed, as of November 2003. While Russia and the United States possess over 95 percent of the world's declared chemical weapons stockpile, they are unlikely to meet the convention's extended deadline of 2012 for destroying their respective stockpiles.[2] In addition, less than 40 percent of member states have adopted national laws to criminalize CWC-prohibited activities. Finally, a 2001 Department of State report assesses that China, Iran, Russia, and Sudan have not fully declared the extent of their chemical weapons programs.

Although the OPCW has established a credible inspection regime and conducted nearly 1,600 inspections in 58 member states between 1997 and 2003, the organization faces significant challenges in balancing an increased demand for inspections at military and commercial sites with its limited resources. The CWC does not specify the number of inspections that the OPCW must conduct each year. Since 1997, the OPCW conducted over half of its inspections at military facilities. The organization also conducted inspections at 514 of the 5,460 declared commercial facilities. The OPCW plans to increase the number of inspections conducted at commercial facilities, that produce discrete organic chemicals, because they may pose a greater proliferation risk than other commercial sites. However, it simultaneously faces an increased demand for inspections at military destruction facilities. Over the past few years, the OPCW has also

[2]The CWC permits member states to request extensions between 2007 and 2012 for the elimination of declared chemical weapons.

experienced financial difficulties. To help overcome the increasing demands being placed on its limited resources, the OPCW is working with member states to further improve the efficiency of its inspection procedures.

Russia's efforts to destroy its chemical weapons stockpiles face significant challenges. Russia is experiencing delays in destroying its chemical weapons stockpile. As of September 2003, Russia had destroyed 1.1 percent of its total declared chemical weapons stockpile of 40,000 metric tons. This compares with the 24 percent already destroyed by the United States. In addition, current Russian destruction efforts are reliant upon international assistance. As of December 2003, international donors, including the United States, Germany, and others,[3] had obligated about $585 million and committed more than $1.7 billion toward Russia's chemical weapons destruction. According to the Department of State, from 2001 through 2003 Russia budgeted about $420 million for chemical weapons demilitarization-related activities. Russia had spent about $95 million. Furthermore, the lack of a credible Russian chemical weapons destruction plan has delayed destruction, and Russian planning efforts to date have not included detailed cost and schedule information. Without a credible plan, Russian destruction efforts may experience further delays, leaving the Russian chemical weapons stockpile vulnerable to theft or diversion.

In commenting on our draft report, the Department of State (State) asserted that our report was incomplete, not balanced, and did not provide examples of the CWC's accomplishments. We have added additional information to reflect State's concerns. However, our report acknowledges the CWC's important contribution to addressing the threat posed by chemical weapons and the OPCW's establishment of a credible inspection regime. The Department of Defense (DOD) commented that the draft report (1) had little analysis of the relative degree of proliferation risk from those member states lacking implementing legislation and (2) did not present a balanced view of CWC implementation. However, DOD offered no criteria for determining which member states pose more of a proliferation risk. DOD also provided examples of CWC accomplishments in its comments that, while important, are secondary to the primary goal of

[3]Other donors include Canada, the Czech Republic, the European Union, Italy, Norway, Switzerland, and the United Kingdom. The Nuclear Threat Initiative is also providing assistance.

destroying the world's entire stockpile of chemical weapons. To ensure balance, we have incorporated discussion of these issues in the report. State and DOD said that our analysis estimating that Russia may not destroy its chemical weapons stockpile until 2027 did not include discussion of other options for destroying Russia's stockpile, such as building additional destruction facilities. As of March 2004, only one facility capable of destroying nerve agent is under construction in Russia. The construction of this U.S-funded facility at Shchuch'ye began 11 years after the U.S. and Russia first agreed to build it. The Department of Commerce (Commerce) commended our draft report for focusing attention on CWC implementation. The OPCW also commended the report for reflecting what has been achieved through CWC implementation and recognizing areas where challenges still exist. We also received technical comments from State, DOD, and Commerce as well as the OPCW and have incorporated their comments where appropriate.

Background

The CWC is a multilateral arms control treaty that bans the development, production, stockpiling, transfer, and use of chemical weapons by member countries and requires the declaration and destruction of those countries' existing chemical weapons stocks and production facilities by 2007, with a possible extension to 2012. The CWC also monitors the production and transfer of chemicals at declared commercial facilities. When the CWC entered into force in April 1997, there were 87 member states. As of March 2004, 161 nations are CWC member states, including Libya. Twenty-one countries are signatories but have yet to ratify the treaty.[4] According to the State Department, key nonsignatory states include North Korea and Syria, which are believed to possess or are actively pursuing chemical weapons capabilities.[5]

[4]Those states that have signed but not ratified the CWC are the Bahamas, Bhutan, Cambodia, Central African Republic, Comoros, Congo, Democratic Republic of the Congo, Djibouti, Dominican Republic, Grenada, Guinea-Bissau, Haiti, Honduras, Israel, Liberia, Madagascar, Marshall Islands, Myanmar, Rwanda, Saint Kitts and Nevis, and Sierra Leone.

[5]According to the statement by the U.S. Assistant Secretary of State for Arms Control before the CWC Review Conference in April 2003, the United States believed that Syria had a stockpile of nerve agent and was trying to develop more toxic and persistent nerve agents. North Korea has also acquired dual-use chemicals that could potentially be used to support its long-standing chemical warfare program.

Upon ratification of the CWC, all member states are required to adopt national laws that criminalize CWC-prohibited activities and establish a national authority to serve as the national focal point for liaison with the OPCW. All members are required to submit initial declarations to the OPCW no later than 30 days after entering into the convention and annual declarations detailing transfer activities of all declared chemicals no later than 90 days after the end of the year. Member states must also declare chemical weapons stockpiles and production facilities, relevant chemical industry facilities, and other related information such as chemical exports and imports. Member states that possess chemical weapons stockpiles and production facilities must destroy them by April 2007. Six member states—Albania, India, Libya, Russia, the United States, and A State Party[6]—have declared their chemical weapons stockpiles and are considered possessor states. Eleven member states have declared chemical weapons production facilities.

The OPCW consists of three organs—the Conference of States Parties, the Executive Council, and the Technical Secretariat—and was established by the convention to implement its provisions. The Technical Secretariat manages the organization's daily operations, including the implementation of the convention's verification measures. The Technical Secretariat serves as the repository for all member states' declarations and relies upon individual member states to submit accurate, timely, and complete declarations. Based on these declarations, the Technical Secretariat inspects and/or monitors member states' military and commercial chemical facilities and activities to ensure their compliance with the CWC. Also, if a member state suspects another member state of conducting activities prohibited by the convention, it may request a challenge inspection of the suspected site(s). As of December 2003, no member state has requested the OPCW to conduct a challenge inspection.

[6]The OPCW keeps the identity of this member state confidential.

Technical Secretariat inspectors take inventories of the declared stockpiles to verify the accuracy of the declarations and ensure that chemical weapons are not removed. Inspectors continuously monitor[7] the destruction of chemical weapons at operating destruction facilities by observing the receipt of chemical weapons at sites and checking the type and quantity of chemical weapons destroyed. Inspectors also verify the destruction or conversion of declared chemical weapons production facilities by observing the destruction of applicable buildings and production equipment. So that dual-use chemicals are not diverted from their peaceful uses, the Technical Secretariat inspects declared commercial production facilities based on three schedules, or lists of chemicals, contained in the CWC.[8] Commercial facilities that produce discrete organic chemicals, above 200 metric tons, are also subject to inspections. OPCW inspectors verify that the types of chemicals being produced are consistent with the member states' declarations.

Funding for OPCW inspections and other operations comes primarily from the 161 member states' required annual contributions, which are based on the United Nations' scale of assessments. The other major source of funding comes from reimbursements of inspections costs paid by chemical weapons possessor states. The OPCW is partially reimbursed for inspection costs incurred while conducting inspections at declared chemical weapons facilities in those countries. The organization, however, must fund inspections at commercial facilities and any challenge inspections it conducts. The organization's budget for calendar year 2004 is $82.6 million.

[7]The CWC requires the verification of chemical weapons destruction through continuous monitoring with on-site instruments and physical presence of inspectors. As such, whenever destruction facilities are operational in member states, OPCW inspectors are located at the facilities.

[8]Schedule 1 chemicals are either chemical weapons or are closely related to chemical weapons. Schedule 2 chemicals can be used to make chemical weapons but can also be used for peaceful industrial purposes. Schedule 3 chemicals are toxic chemicals that can be used to make chemical weapons but are produced on a large scale to make common products such as oil, paper, and cloth.

Member States Are Experiencing Delays in Complying with Key CWC Requirements

Although the CWC has helped to reduce the risks from chemical weapons, member states are experiencing delays in destroying their chemical weapons and implementing key requirements of the treaty. For example, Russia and the United States are unlikely to destroy their declared chemical weapons by the extended deadline of 2012, and many member states have not adopted national laws that fully implement the CWC. In addition, some member states have yet to provide the OPCW with complete and timely declarations detailing their CWC-related activities.

Complete Destruction of Largest Possessor States' Chemical Weapons Stockpiles Will Extend beyond Deadline

We estimate that the United States and Russia are unlikely to meet the 2012 extended CWC deadline for destroying their chemical weapons. Three other possessor states—Albania, India, and A State Party—possess smaller stockpiles and are expected to destroy their stockpiles by the original April 2007 deadline (see table 1). In addition, Libya became the sixth possessor state in February 2004 when it became a member of the CWC and declared that it possessed chemical weapons. According to OPCW officials and CWC possessor states, the destruction of chemical weapons has proven more complex, costly, and time consuming than originally anticipated.

Table 1: CWC Possessor States' Declared Stockpiles and Amount Destroyed

Possessor state	Amount of stockpile declared (metric tons)	Stockpile destroyed, September 2003 (percent)	Projected date for complete destruction
Russian Federation	40,000	1.1	2027[a]
United States	27,771	24	2014[a]
Albania	[b]	0	2007
India	[b]	39	2007
A State Party	[b]	29	2007
Libya	23	0	unknown

Source: GAO analysis of information provided by DOD and State, OPCW, and chemical weapons possessor states.

Note: The amount of stockpile declared applies only to the most dangerous chemical weapons, known as category 1.

[a]Projected data are GAO analysis based on declared stockpiles and destruction facilities currently in operation or under construction.

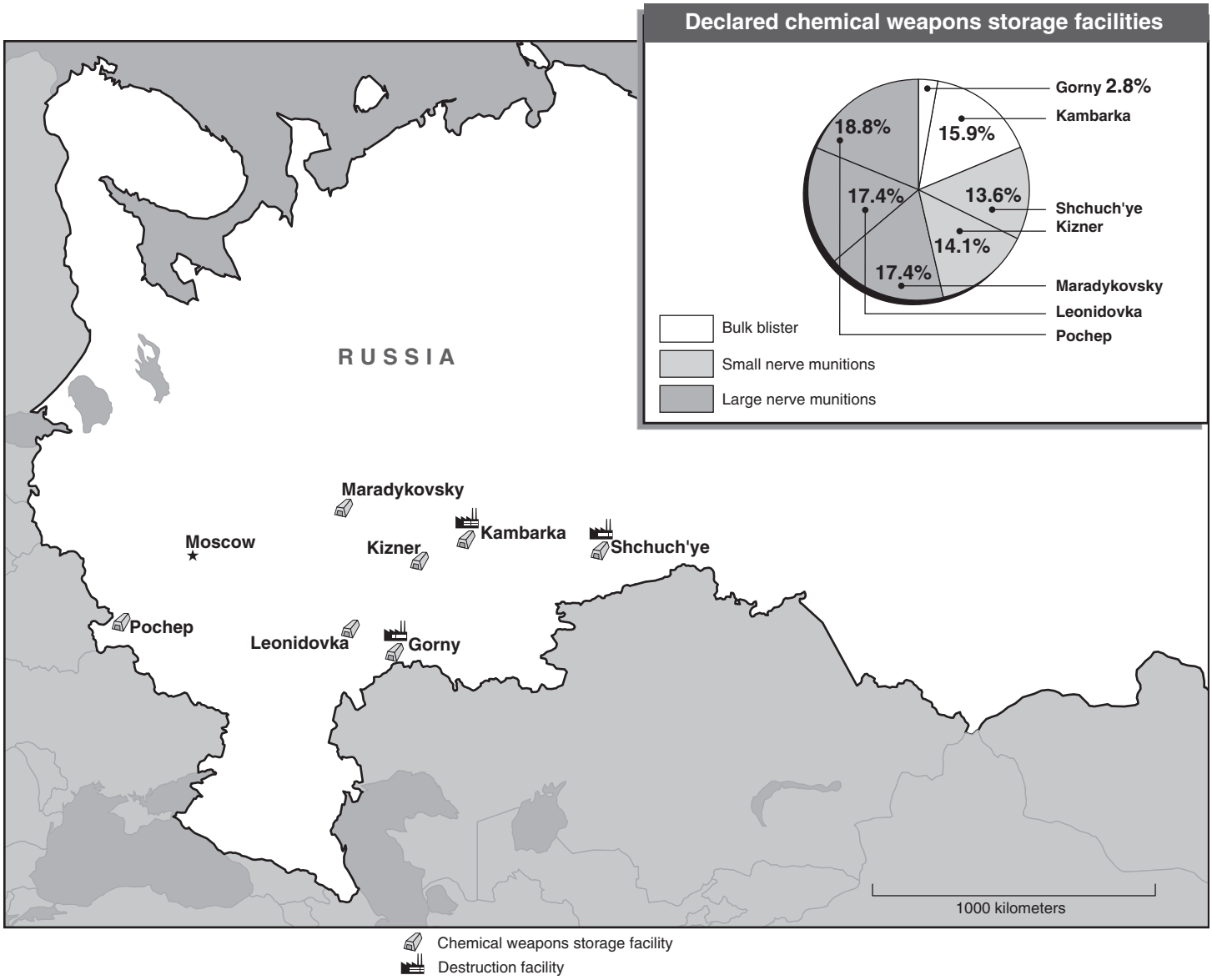
[b]The amounts of the declared stockpiles are considered confidential by the OPCW and For Official Use Only by the U.S. government.

Russia currently possesses the world's largest declared chemical weapons stockpile at 40,000 metric tons stored at seven sites, as shown in figure 1. The stockpile includes 32,500 metric tons of nerve agent, the most toxic of all known chemical agents, and 7,500 metric tons of blister agent.[9] As we have previously reported, DOD has installed security upgrades at Shchuch'ye and Kizner, the two sites with portable nerve agent munitions. However, a large quantity of Russia's chemical weapons will remain vulnerable to theft or diversion until they are destroyed.[10] As of September 2003, Russia had destroyed 1.1 percent of its total CWC-declared stockpile.

[9]Blister agents can be lethal if inhaled but generally cause slow-to-heal burns on contact with skin. These agents are considered less of a threat to U.S. national security interests.

[10]U.S. General Accounting Office, *Weapons of Mass Destruction: Additional Russian Cooperation Needed to Facilitate U.S. Efforts to Improve Security at Russia Sites*, GAO-03-482 (Washington, D.C.: March 24, 2003).

Figure 1: Location of Russian Chemical Weapons Stockpiles



Sources: DOD (data); Nova Development and Map Resources (images).

Russia did not meet the original treaty deadline to destroy 1 percent of its stockpile by April 2000. In accordance with treaty provisions, Russia requested and received an extension of its 1-percent and 20-percent deadlines from the OPCW.[11] In April 2003, Russia met the one percent destruction deadline. Based on information provided by DOD, we estimate that Russia may not destroy its declared chemical weapons stockpile until 2027. Our analysis is predicated on Russia's complete destruction of its approximately 7,500 metric tons of blister agent by the 2007 deadline and destroying the remaining 32,500 metric tons of nerve agent at the U.S. funded destruction facility at Shchuch'ye. In September 2003, Russia agreed to complete the elimination of all of its nerve agent at the Shchuch'ye destruction facility, which is scheduled to begin operations in 2008. According to DOD, the Shchuch'ye facility may not be operational until 2009. For Russia to meet an extended April 2012 deadline, Russia would have to destroy about 9,100 metric tons of nerve agent per year. Operating at maximum capacity, the facility is estimated to destroy about 1,700 metric tons of nerve agent per year.[12] At that rate, unless the capacity for destruction is increased or additional destruction facilities are built, the complete destruction of Russia's stockpile may not occur until 2027.[13] (We discuss other options for destroying Russia's nerve agent stockpile later in this report.)

[11]The OPCW extended Russia's 1-percent deadline from April 2000 to May 31, 2003 and its 20-percent deadline from April 2002 to April 2007. Russia also submitted requests to extend its 45-percent and 100-percent deadlines. As of October 2003, specific dates for these deadlines had not been agreed upon.

[12]According to DOD, the destruction rate for the Shchuch'ye facility applies to the munitions stored at Shchuch'ye and Kizner and may not apply to the bulk agent stored at Maradykovsky, Leonidovka, and Pochep. Our analysis is based on the capacity of the destruction facilities that are currently operational or under construction.

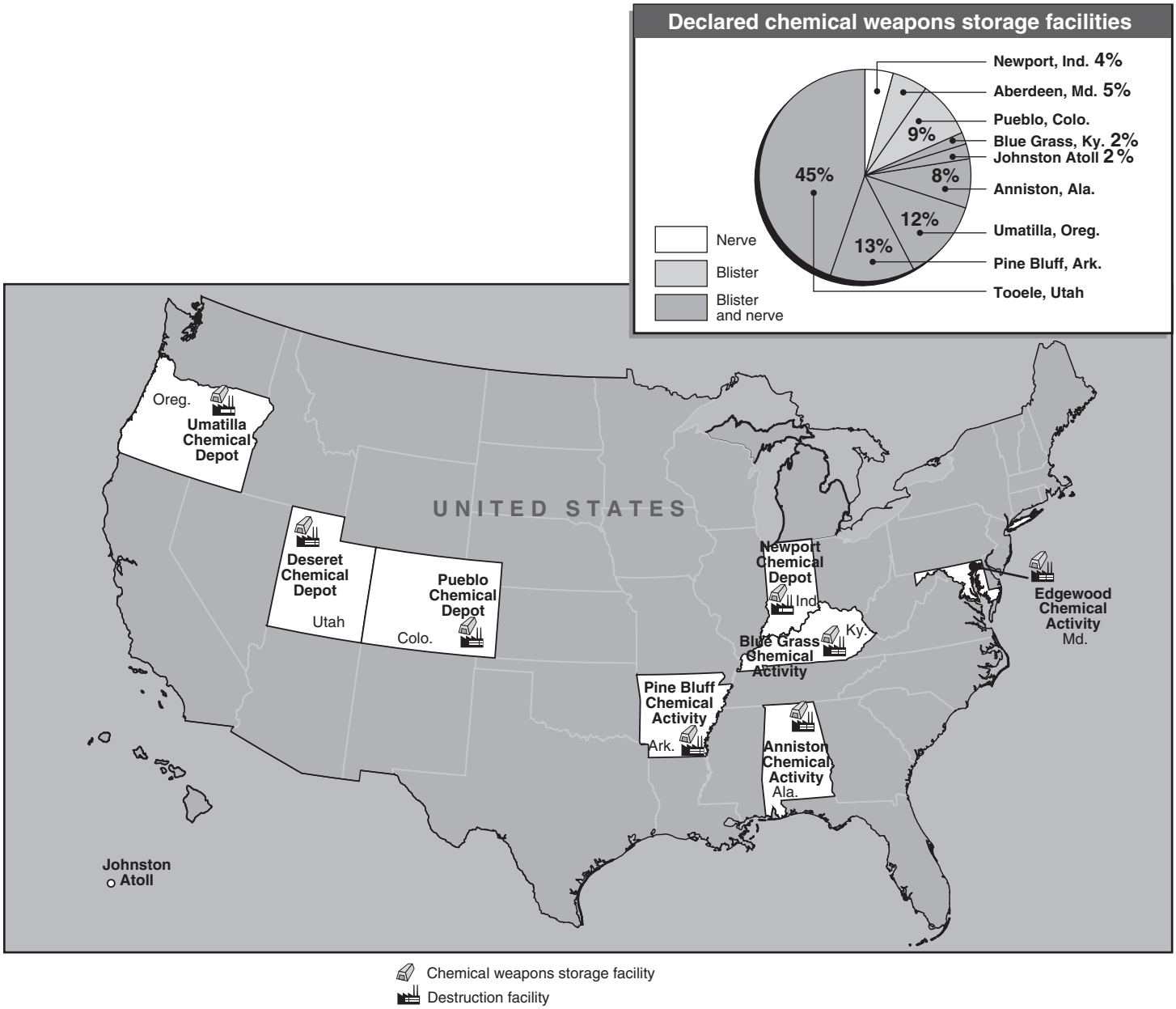
[13]Based on our discussion with Russian government officials, Russia may construct three additional chemical weapons destruction facilities.

The United States possesses the second largest declared chemical weapons stockpile with 27,771 metric tons, which is stored at eight sites, as shown in figure 2. Currently, the United States is operating three destruction facilities; three additional facilities will be operational in the near future and two more will begin construction. As of December 2003, the United States destroyed 24 percent of its declared stockpile and met the 1-percent and 20-percent interim deadlines within the treaty time frames. However, the United States requested and received an extension of the 45-percent deadline from April 2004 to December 2007. The United States will not meet the 100-percent April 2007 destruction deadline and may not meet the 2012 deadline, if extended,[14] based on the current schedule. According to DOD, one U.S. chemical weapons destruction facility is not scheduled to complete its destruction operation until 2014. Persistent delays have occurred due to plant safety issues, environmental requirements, and funding shortfalls. We have previously reported on the significant management challenges in the U.S. chemical demilitarization program, as well as concerns over cost growth and schedule delays. As noted in our prior work, the U.S. chemical weapons demilitarization program spent $11.4 billion by the end of fiscal year 2003, which accounts for nearly half of the program's life-cycle cost estimate of $24 billion.[15]

[14]According to DOD, the United States has received "in principle" an extension of its 100-percent deadline to April 2012 and will request a formal extension of its 100-percent deadline by April 2006.

[15]U.S. General Accounting Office, *Chemical Weapons: Sustained Leadership, Along with Key Strategic Management Tools, Is Needed to Guide DOD's Destruction Program*, GAO-03-1031 (Washington, D.C.: September 2003).

Figure 2: Location of U.S. Chemical Weapons Stockpiles



Sources: DOD (data); Nova Development and Map Resources (images).

Note: As of November 2003, all chemical weapons at Johnston Atoll have been destroyed and the destruction facility has been dismantled.

Three other possessor states—Albania, India, and A State Party—account for about 3 percent of the global declared chemical weapons stockpile and are anticipated to meet the CWC complete destruction time line by April 2007. With smaller stockpiles than those in Russia and the United States, these countries have had less difficulty meeting their deadlines. Albania declared its stockpile to the OPCW in 2003, and the United States is providing assistance to destroy its chemical weapons stockpile. Other nations, including Canada and Italy, may also provide assistance. State officials estimate that Albania will meet the 2007 destruction deadline. According to Indian officials, India has the third largest stockpile after Russia and the United States; however, information on its chemical weapons destruction program is not publicly available. The fifth possessor state, A State Party, experienced interim delays due to technical difficulties. It requested and received an extension of its 45-percent chemical weapons destruction deadline in 2003. According to government officials, it remains on track to meet the 2007 deadline. Libya, the sixth possessor state, has just declared its chemical weapons to the OPCW and has yet to develop a destruction plan for its stockpile.

Many Member States Have Yet to Adopt National Laws Implementing the CWC

According to the OPCW, less than 40 percent of CWC member states have adopted national laws to criminalize CWC-prohibited activities. Although the treaty does not establish a time line for the adoption of such measures, according to the OPCW, member states are expected to implement these laws soon after ratifying the convention. OPCW officials stated that many member states lack sufficient legal expertise and financial resources to adopt the required laws. At the 2003 CWC Review Conference, however, the United States launched an initiative to assist all CWC member states in adopting comprehensive national laws. The effort culminated in an OPCW action plan to help member states adopt necessary laws by 2005.

According to the OPCW, 126 member states have designated a national authority to collect and submit their declarations. However, OPCW and State officials estimate that a large number of member states' national authorities are not effective because they lack sufficient financial and human resources. National authorities are important in implementing the treaty because they facilitate member states' ability to submit accurate and timely declarations to the OPCW and host OPCW inspections. To encourage member states to improve the effectiveness of their national authorities, the OPCW hosts workshops to identify common problems and assist member states in addressing them accordingly.

Some Member States Have Submitted Incomplete or Late Declarations

According to a 2001 Department of State report, four CWC member states—China, Iran, Sudan, and Russia—had not acknowledged the full extent of their chemical weapons program.[16] The CWC requires member states to fully and accurately declare their chemical weapons capabilities. However, State believes that China maintains an active chemical weapons research and development program, a possible undeclared chemical weapons stockpile, and weapons-related facilities that were not declared to the OPCW.[17] Iran has not submitted a complete and accurate declaration and is seeking to retain and modernize key elements of its chemical weapons program, according to the report. Sudan established a research and development program with a goal to produce chemical weapons indigenously. The report also assesses that Russia has not divulged the full extent of its chemical agent and weapons inventory. State views Russia's declaration of its chemical weapons production, development facilities, and chemical agent and weapons stockpiles as incomplete. In addition, State reported that Russia may have knowledge of a new generation of agents that could circumvent the CWC and possibly defeat western detection and protection measures. The significance of this issue was addressed at the 2003 CWC Review Conference. The Director-General of the OPCW urged member states to provide accurate and complete declarations to increase transparency and confidence in the treaty.

Furthermore, member states have been late in submitting their required initial and annual declarations to the OPCW. As of December 2002, nearly 97 percent of all member states submitted their initial declarations, but a large percentage of member states did not submit their initial declarations within the required 30-day time frame. The OPCW also engaged in bilateral consultations to assist member states in submitting their initial declarations. As of October 2003, nearly one-third of member states had failed to submit their annual declarations in a timely manner. According to the OPCW, delays in submitting the required declarations make it difficult for the organization to plan its annual inspections and track chemical transfers.

[16]The U.S. government also has concerns about other member states' CWC compliance; however, the identities of these countries remain classified.

[17]See U.S. Department of State, *Adherence to and Compliance with Arms Control and Nonproliferation Agreements and Commitments*, Washington, D.C., 2001.

OPCW Conducts Inspections, but Significant Challenges Remain

The OPCW has established a credible inspections regime. Between 1997 and 2003, the OPCW conducted nearly 1,600 inspections in 58 member states. However, the organization faces significant challenges as it prepares to balance an increased number of inspections at both military and commercial facilities with its limited resources. The CWC does not specify the number of annual inspections that the OPCW is required to conduct. Since April 1997, more than half of OPCW inspections have taken place at military facilities even though some commercial facilities may pose a greater proliferation threat. To meet the increased demands on its limited resources, the OPCW is working with member states to further improve the efficiency of its inspection activities.

OPCW Implementing CWC Inspection Regime

From April 1997 through December 2003, the OPCW's Technical Secretariat has conducted nearly 1,600 inspections at both military and commercial chemical facilities in 58 member states. (See app. II for a chart depicting the locations of inspections conducted.[18]) According to OPCW officials and member states' representatives we interviewed, inspections are proceeding as planned under the CWC. Within the United States, officials from the State, DOD, and Commerce, as well as chemical industry representatives, stated that the United States and OPCW inspectors work cooperatively to implement the inspection regime. When questions or concerns arise, the Technical Secretariat and the affected member state(s) work to resolve them. For example, the United States and the OPCW have resolved issues such as clarifying which portions of declared commercial facilities are subject to inspection. According to DOD, OPCW inspectors have good access to declared sites and facilities.

As of December 2003, the Technical Secretariat conducted 965 inspections at 167 of 190 declared military sites. The military sites that have not been inspected are either chemical weapons production facilities destroyed prior to CWC entry into force or sites having old or abandoned chemical weapons. Although the CWC requires that OPCW maintain a continuous presence at member states' sites when chemical weapons are being destroyed, it does not specify how many inspections are to be conducted annually. The Technical Secretariat determines how many inspections to

[18]The data contained in appendix II reflect inspections conducted as of December 2002 because the OPCW could not provide more current data until it has been approved by the CWC member states.

conduct annually based on the number of military facilities declared by member states, member states' annual destruction plans, annual declarations, and the annual OPCW budget documents. The greatest number of inspections has taken place at chemical weapons destruction facilities—primarily in the United States, Russia, and India. About one-third of all inspections conducted by the Technical Secretariat have taken place in the United States, mostly at chemical weapons destruction facilities. Table 2 shows the number of inspections conducted at different types of facilities at military sites from April 1997 through December 2003.

Table 2: OPCW Inspection Activity at Military Facilities

CWC military facility inspection requirements	Declared sites or facilities, as of 2003	Inspections, as of December 2003	Sites inspected, 1997-2003
CW production facilities	61	298	63
CW destruction facilities	39	376	26
CW storage facilities	33	219	34
Abandoned CW[a]	15	22	17
Old CW[b]	42	50	27
Total	**190**	**965**	**167**

Source: OPCW data.

[a]"Abandoned chemical weapons" refers to those left by one country (after January 1, 1925) on the territory of another country without the consent of the latter.

[b]"Old chemical weapons" refers to those produced before 1925 or those produced between 1925 and 1946 that have deteriorated to such an extent that they cannot be used as weapons.

Between April 1997 and December 2003, Technical Secretariat officials conducted 634 inspections at 514 sites among the 5,460 commercial facilities declared by member states (see table 3). Because the CWC does not specify the specific number of inspections to be conducted each year, the Technical Secretariat selects the facilities it will inspect based on those requiring initial inspections and the potential proliferation risk of facilities. The annual budget document specifies the number of inspections to be conducted. Since April 1997, most OPCW commercial inspections have taken place at facilities that produce chemicals listed on the CWC's three schedules. Of the declared 4,492 facilities that produce discrete organic chemicals (DOC), the organization has inspected 163. DOC facilities produce a wide range of common commercial chemicals and may also be

capable of producing chemical weapons. According to U.S. government and OPCW officials, such dual-use DOC facilities may pose a proliferation threat because they may conceal CWC-prohibited activities. Most significantly, these DOC facilities may be modified to produce scheduled and other chemicals that are not specifically listed on current CWC schedules but are still banned by the CWC, if intended for prohibited purposes. In commenting on a draft of our report, the OPCW provided clarification of this proliferation issue. While the majority of commercial facilities produce discrete organic chemicals, the OPCW estimates that less than 20 percent of these DOC sites may pose highly relevant proliferation risks.

Table 3: OPCW Inspection Activity at Commercial Facilities

CWC required inspections at commercial facilities	Declared sites or facilities as of December 2003	Inspections as of December 2003	Number of sites inspected, April 1997-December 2003
Schedule 1 chemicals[a]	27	123	34
Schedule 2 chemicals[b]	432	233	202
Schedule 3 chemicals[c]	509	115	115
DOC[d]	4,492	163	163
Total	**5,460**	**634**	**514**

Source: OPCW data.

[a]Schedule 1 chemicals are either chemical weapons or are closely related to chemical weapons.

[b]Schedule 2 chemicals can be used to make chemical weapons but can also be used for peaceful industrial purposes. These chemicals are not produced in large quantities.

[c]Schedule 3 chemicals are toxic chemicals that can be used to make chemical weapons but are also produced on a large scale to make products such as oil, cement, cloth, and paper.

[d]DOCs cover a wide range of chemicals that are not listed in the Schedules but could be used to produce chemical weapons.

OPCW Faces Significant Challenges in Conducting More Inspections

Although the OPCW has made progress in conducting inspections as mandated by the convention, it faces challenges in meeting an increase in its inspection workload. As possessor states' destruction activities increase over the next few years, the OPCW will have to maintain a continuous inspection presence at more facilities. Concurrently, the OPCW wants to increase the number of inspections it conducts at commercial

DOC facilities to address proliferation concerns. However, the OPCW has experienced financial difficulties over the past few years. To better meet the increased demand on its resources, the OPCW is working with member states to find more efficient and cost-effective means of conducting its inspection activities.

The OPCW projects that the number of chemical weapons destruction facilities that will require monitoring will increase from seven to nine by 2007. Under the CWC, OPCW inspectors must maintain a continuous onsite presence at chemical weapons destruction facilities to monitor and verify the destruction of chemical weapons stockpiles. According to OPCW officials, the organization is reimbursed for about two-thirds of the expenses it incurs during such inspections.[19] OPCW inspection costs will increase, if the organization maintains a continuous on-site presence at the additional chemical weapons destruction sites that will begin operations in the near future. However, the Technical Secretariat and member states are currently discussing possible monitoring alternatives that may reduce costs without compromising the credibility of the inspections.

According to the OPCW, the organization is working to increase the number of inspections it conducts at commercial DOC facilities to address the proliferation risks they pose. In 2002, for example, 32 of 85 commercial inspections conducted were at DOC facilities. In 2004, the OPCW plans to increase the number of DOC facility inspections to 70 out of a total of 150 inspections planned at commercial facilities. Furthermore, OPCW and member states[20] are working to refine the current criteria used to select DOC facilities for inspections to ensure that the selection process takes into account all factors mandated by the CWC.

[19]The OPCW is reimbursed for all the operational expenses and roughly one-third of the inspector salary costs for chemical weapons inspections at military facilities in chemical weapons possessor states.

[20]A U.S.-Swiss proposal to clarify guidance on how the Technical Secretariat should implement paragraphs 11(b) and 11(c) of the CWC's verification annex is currently being discussed.

Due to budget deficits in 2001 and 2002, the Technical Secretariat had to reduce the number of inspections it planned to conduct at commercial chemical facilities. Such deficits were mostly the result of member states' late payment of their annual assessments and reimbursements for military inspections.[21] When funding was limited, the OPCW could not reduce the number of inspections at destruction facilities because inspectors are required to continuously monitor these sites when operational. Instead, it reduced the number of commercial inspections it conducted. In 2001, the OPCW conducted 57 percent (75 of 132) of its planned inspections at commercial sites. For 2002, it conducted 64 percent (85 of 132) of its planned inspections. Although previous financial difficulties caused a reduction in the number of inspections, the Technical Secretariat completed its planned number of 132 commercial inspections for 2003. Member states approved a more than 6-percent increase in the OPCW's budget for 2004. According to OPCW officials, such budget increases are unlikely to continue in future years, and the problem of late receipt of member states' annual assessments and reimbursements will likely reoccur.

To meet the increased demand for inspections, the Technical Secretariat is working to improve the efficiency of its inspection activities. The organization has reduced the size of inspection teams at military sites, thereby lowering daily allowance and travel costs. For example, the team size for most inspections conducted at chemical weapons storage facilities was reduced from eight in 2002 to six in 2003. The Technical Secretariat has also devised new contracts for inspectors of chemical weapons destruction facilities that permit hiring part-time inspectors for 1 year. When implemented, such contracts could reduce staff costs and provide for more flexibility in assigning inspection teams. The OPCW and member states are also exploring greater use of monitoring and recording instruments at chemical weapons destruction facilities to reduce the number of inspectors needed on-site. Cost-saving measures have also been proposed and implemented to increase the efficiency of inspections conducted at commercial facilities, including reducing the size of inspection teams and the time they spend on-site.

[21]U.S. General Accounting Office, *Chemical Weapons: Organization for the Prohibition of Chemical Weapons Needs Comprehensive Plan to Correct Budgeting Weaknesses*, GAO-03-5 (Washington, D.C.: Oct. 24, 2002).

Russia Faces Significant Challenges in Destroying Its Chemical Weapons

Russia is experiencing delays in destroying its chemical weapons. As of September 2003, Russia had destroyed 1.1 percent of its 40,000 metric tons of chemical weapons at its only operational destruction facility. Russian destruction efforts have also relied almost entirely on international assistance. As of December 2003, international donors have shipped about $585 million and committed more than $1.7 billion to Russian destruction efforts. According to State, from 2001 through 2003 Russia budgeted about $420 million for chemical weapons demilitarization-related activities. Russia spent about $95 million. However, based on its current destruction efforts and the international assistance committed, Russia will not meet the extended CWC destruction deadline of 2012. Furthermore, Russia has yet to develop a comprehensive destruction plan that includes the types of projects and funding needed to completely destroy its declared stockpile, which may further delay destruction efforts.

One–Percent Milestone Achieved at Gorny; Two Additional Facilities under Construction

Russia plans to destroy its chemical weapons stockpiles at Gorny, Kambarka, and Shchuch'ye, primarily using assistance provided by Germany and the United States. Russia has yet to develop a credible plan to destroy the remaining 50-percent of its chemical weapons stockpile stored at Maradykovsky, Leonidovka, and Pochep. Table 4 provides the time line for Russia's destruction efforts at facilities in operation or under construction.

Table 4: Time Line for Destroying Russia's Chemical Weapons (as of December 2003)

Location of destruction facilities	Estimated date for completing destruction facility	Estimated start of destruction	Estimated end of destruction	Type of agent to be destroyed	Amount of chemical weapons to be destroyed (metric tons)
Gorny	August 2002	December 2002	December 2005	Blister	1,120
Kambarka	December 2005	December 2005	December 2009	Blister	6,360
Shchuch'ye	September 2008	September 2008	After 2012	Nerve[a]	11,080

Source: GAO analysis of DOD, State, and German government data.

[a]Russia plans to destroy all nerve agent located at Shchuch'ye and Kizner at the Shchuch'ye facility.

Gorny and Kambarka to Destroy All Blister Agent

Russia is relying on German assistance to destroy its stockpile of blister agent at the Gorny and Kambarka facilities. According to DOD, Germany focused its assistance in this area because it had experience destroying World War II blister agents. As of September 2003, Russia destroyed 455 metric tons of blister agent (1.1 percent of the Russian stockpile) stored at the Gorny facility. Russia will destroy the remaining stockpile at Gorny by December 2005, according to a German official. Russia constructed the building for the destruction facility, while Germany spent about $58 million from 1993 to 2003 to equip the facility.[22] Germany has committed $120 million for the Kambarka destruction facility, currently under construction, and up to $300 million in additional funds, according to a German government official. The facility at Kambarka will destroy the entire stockpile of blister agent located there by December 2009. The construction schedule of this facility may be delayed, according to a German government official overseeing the assistance.

Shchuch'ye Will Destroy 30 Percent of Russia's Chemical Weapons Stockpile

Once operational, the Shchuch'ye chemical weapons destruction facility will begin to destroy nerve agent from two Russian storage sites that house nearly 30 percent of the total Russian stockpile.[23] The storage facilities at Kizner and Shchuch'ye each house about 5,500 metric tons of nerve agent stored in projectiles and rockets. According to DOD and State officials, the United States has focused its assistance to Russia at Shchuch'ye because these chemical weapons are portable and thus vulnerable to theft and diversion.

The United States has agreed to pay for the destruction facility at Shchuch'ye.[24] The facility is scheduled to destroy the nerve agent stockpiles located at both the Shchuch'ye and Kizner storage sites. DOD's Cooperative Threat Reduction program has obligated more than $460 million on planning, design, and construction of the facility. In October 2003, DOD updated the costs and schedule for completing the Shchuch'ye facility and projected that the cost would increase from about $888 million

[22]From 2000 to 2003, the European Union also provided $6 million for the Gorny facility. Both the German and European Union figures are expressed in constant 2003 dollars.

[23]The Shchuch'ye storage site is located about 10 miles from the destruction facility. The chemical weapons stored at Kizner are located more than 450 miles from the Shchuch'ye destruction facility. Nerve agent from each location will be sent to Shchuch'ye by rail.

[24]The United States plans to finance the construction of all buildings within the facility, except for one destruction building, which the Russians will fund.

to more than $1 billion. DOD also noted that the operation of the facility may be delayed from September 2008 to July 2009. DOD attributes the increased cost to changed site conditions, new requirements, risk factors, and delays due to lack of U.S. funding for 2 years caused by Russia's inability to meet U.S. congressional conditions. Once operational, the facility is estimated to destroy 1,700 metric tons of chemical weapons per year. With a July 2009 operational date, we estimate that the destruction of chemical weapons stored at Shchuch'ye and Kizner will not be completed until at least 2016. (For more detailed information on international assistance for chemical weapons destruction at Shchuch'ye, see app. III.)

Russian Plans for Destroying Remainder of Its Nerve Agent Stockpile Are Unknown

In November 2003, the Director of the Russian Munitions Agency informed us that Russia has not yet decided how it will destroy the remaining nerve agent stored at Maradykovsky, Leonidovka, and Pochep. This nerve agent represents over 50 percent of the total Russian chemical weapons stockpile. In September 2003, the United States and Russia amended a March 2003 agreement under which the Russian Munitions Agency agreed to complete the elimination of all nerve agent at the Shchuch'ye destruction facility, unless otherwise agreed in writing. According to DOD and Russian government officials, there is uncertainty whether Russia will comply. Russian officials have concerns about the costs and risks of transporting the weapons from these sites to Shchuch'ye, most of which are located more than 500 miles away. As a result, Russian officials have indicated that Russia may construct three chemical weapons neutralization facilities for the nerve agent stored at Maradykovsky, Leonidovka, and Pochep. Under this option, Russia would neutralize the chemical weapons at the three sites so the agent would be safe for transport, and then complete the destruction process at Shchuch'ye. This would require the construction of three neutralization facilities plus new destruction capacity at Shchuch'ye, because the neutralized agent would likely be destroyed using a different process than the unneutralized agent from the Shchuch'ye and Kizner sites. In November 2003, however, Italy agreed to commit funding for the construction of a destruction facility at Pochep.[25]

[25]According to DOD, Italy has committed up to 360 million euros from 2004 to 2008 for the construction of the facility.

International Donors Assist Russian Chemical Weapons Destruction

While Germany and the United States have obligated about $515 million and committed an additional $1 billion for Gorny, Kambarka, and Shchuch'ye, other donors have spent about $70 million at these sites.[26] Furthermore, in June 2002, the Group of Eight launched the Global Partnership initiative, which was designed to prevent the proliferation of weapons of mass destruction to terrorists and their supporters. Among other projects in Russia, the initiative is currently assisting with chemical weapons destruction.[27] As of December 2003, international donors, including the United States, Germany, Canada, Italy, and the United Kingdom, [28] have committed more than $1.7 billion for Russian chemical weapons destruction.

Lack of Plan May Hinder Russia's Progress in Destroying Chemical Weapons

Congress has conditioned U.S. funding for the Shchuch'ye facility on a Secretary of Defense certification that Russia has developed a practical chemical weapons destruction plan.[29] In September 2003, Russia signed an agreement with the United States to provide a chemical weapons destruction plan by March 2004. The plan would include the types of projects and funding needed to completely destroy its declared chemical weapons. Officials from State and DOD were not optimistic that the Russians will deliver a plan within the required time.

According to State and DOD officials, Russia's planning efforts to date have been based on inaccurate assumptions and have lacked detailed information on how the destruction of chemical weapons will occur at each site. For example, Russian officials have stated that they expect the Shchuch'ye chemical weapons destruction facility to be operational in 2006, despite DOD estimates that it may take until July 2009. DOD officials stated that additional time is needed to procure and install the equipment needed for the destruction facility.

[26]Donors to Shchuch'ye include Canada, Italy, and the United Kingdom.

[27]Other priority concerns of the Global Partnership initiative include plutonium disposition, nuclear submarine dismantlement, and employment of former weapons scientists in Russia.

[28]In addition, the Czech Republic, the European Union, Norway, Switzerland, and the Nuclear Threat Initiative are also providing assistance.

[29]In accordance with Public Law 108-136, Sec. 1306, the President exercised his authority to waive congressional stipulations and continue funding of the Shchuch'ye facility.

In addition, Russia's plans need greater specificity. Russia has provided some information to the United States regarding the following:

- where the chemical weapons will be destroyed,
- when they will be destroyed and the amounts at each location,
- costs for each facility, and
- how each facility will contribute to the destruction efforts.

According to officials from State and DOD, the information provided does not appear credible and lacks key elements. Russia has not provided the method, schedule, and cost for transporting its chemical weapons to the destruction facility at Shchuch'ye. In addition, Russia has no credible plan to destroy the nerve agent at Maradykovsky, Leonidovka, and Pochep. Russian officials indicated that the nerve agent may be neutralized at each site but did not provide any details regarding what would be needed to undertake such an effort, including a plan to dispose of the toxic chemicals resulting from the neutralization process.

Russia's chemical weapons destruction efforts at Pochep, Leonidovka, and Maradovski may be further complicated by Russia's definition of destruction, which differs from that of the United States and the OPCW. The CWC defines destruction of chemical weapons as an essentially irreversible process.[30] The United States and the OPCW maintain that chemical weapons are not destroyed until the materials resulting from the destruction process are essentially irreversible (i.e., can no longer be reversed back to chemical weapons) and the remaining materials can be inspected by the OPCW. The United States neutralizes some of its chemical weapons in a two-phase process that first neutralizes the agent and then transports the resulting hazardous waste to a commercial chemical facility for final disposition. The OPCW inspects both phases of the neutralization process. Russian officials maintain that chemical weapons should be considered destroyed after the initial neutralization phase and not require further processing or OPCW inspections. Russian officials argue that,

[30]Under the CWC, the destruction of chemical weapons is defined as "a process by which chemicals are converted in an essentially irreversible way to a form unsuitable for production of chemical weapons, and which in an irreversible manner renders munitions and other devices unusable."

although toxic chemicals resulting from the neutralization process could be reverted to chemical weapons, the cost to do so would be prohibitive. Russia raised this issue at the May 2003 CWC Review Conference, but OPCW member states maintained that complete destruction should be an essentially irreversible process as specified in the CWC. Despite this opposition, Russian government officials at the Russian Munitions Agency and the Ministry of Foreign Affairs stated in November 2003 that they consider initial neutralization equivalent to destruction.

Observations

The CWC has played an important role in reducing the risks from chemical weapons. Member states have destroyed more than 7,700 metric tons of chemical weapons and the OPCW has established a credible inspection regime that has inspected many military and commercial chemical facilities in 58 countries. Nearly 7 years after entry into force, the CWC's nonproliferation goals have proven more difficult to achieve than originally anticipated. CWC member states and the OPCW face difficult choices in addressing the delays in Russia's destruction program, the limited number of inspections at dual-use commercial sites, and the slow progress in passing laws criminalizing CWC-prohibited activities. Decision-makers will have to make some combination of policy changes in these areas if the CWC is to continue to credibly address nonproliferation concerns worldwide.

First, the destruction of chemical weapons will likely take longer and cost more than originally anticipated. Even with significant international assistance, Russia may not destroy its declared chemical weapons until 15 years beyond the extended CWC deadline. Russia's large stockpile will thus remain vulnerable to theft and diversion. Several options exist, however, for the United States and other donors to reduce the proliferation risks from Russia's chemical weapons stockpile. Such options may include (1) increasing funding for security improvements at Russia's chemical weapons storage sites, (2) deferring financing for Russia's chemical weapons destruction effort until the Russian government develops a credible destruction plan, or (3) financing the construction of additional destruction facilities.

Second, technical advancements in the chemical industry and the increasing number of dual-use commercial facilities worldwide challenge the CWC and the OPCW's ability to deter and detect proliferation. Member states will need to determine the best policies for addressing potential proliferation at dual-use commercial facilities. CWC member states could

decide that the OPCW should conduct more commercial inspections, which would require member states to provide more funding and subject their national chemical industries to additional inspections. Alternatively, member states may determine that the current level of commercial inspections is sufficient to detect and deter activities prohibited by the CWC.

Third, many member states have not yet adopted national laws to fully implement the convention, or have not submitted complete and accurate declarations of their CWC-related activities. These problems undermine confidence in overall treaty compliance. It is important for the OPCW and member states to reinforce member states' obligations to adopt national laws, enforce them accordingly, and submit accurate and timely declarations. Challenge inspections may also be a vehicle to ensure member states' compliance with the CWC.

Agency Comments and Our Evaluation

We obtained written comments on a draft of this report from State, DOD, Commerce, and the OPCW, which are reprinted in appendixes IV, V, VI, and VII respectively. We also received technical comments from the departments as well as the OPCW, which we have incorporated where appropriate. In commenting on our draft report, State asserted that our report was misleading, incomplete, and not balanced. State did not provide specific examples but instead claimed that the report omitted positive CWC accomplishments such as growth in the number of member states, correction of OPCW management inefficiencies, and OPCW execution of the CWC inspection regime. In response, we agree that the CWC has played an important role in reducing the threat posed by chemical weapons and the report acknowledges this accomplishment. With regard to State's comment about the growth in the number of CWC member states, the report focuses on CWC implementation among already existing member states. For clarification however, we have provided additional information on the increase in CWC membership since entry into force. Secondly, State commented that the report did not assess OPCW management corrections. In this report we reviewed OPCW's efforts to conduct inspections, not the management of the organization. We had previously reported on this topic in October 2002.[31] Thirdly, the report

[31]U.S. General Accounting Office, *Chemical Weapons: Organization for the Prohibition of Chemical Weapons Needs Comprehensive Plan to Correct Budgeting Weaknesses*, GAO-03-5 (Washington, D.C.: Oct. 24, 2002).

clearly articulates that the OPCW has established a credible inspection regime and has conducted nearly 1,600 inspections in 58 member states. While this report discusses several important delays in CWC implementation, it still acknowledges that the CWC and OPCW have made important contributions to addressing the threat posed by chemical weapons.

DOD commented that our draft report had little analysis of the relative degree of proliferation risk from those member states lacking implementing legislation. DOD, however, does not offer what criteria one would use to make a determination about which member states are more important to CWC implementation. As stated in the report, the CWC requires all member states to adopt national implementing legislation. In addition, DOD believes that the report is not conducive to providing a balanced perspective because it does not acknowledge successes in implementing the CWC. For example, DOD cites that progress has been made in eliminating former chemical weapons production facilities and destroying category 2 and 3 chemical weapons related munitions. Such successes, however, remain secondary to the CWC's primary goal of destroying actual chemical weapons. As stated in this report, the CWC is the only multilateral treaty that seeks to eliminate an entire category of weapons of mass destruction under an established time frame and verify their destruction through inspections. DOD also asserts that the report does not recognize the significant changes occurring within the OPCW. As mentioned previously, this report does not assess OPCW functions or performance because we conducted such a review of the OPCW in October 2002. This report does, however, credit the OPCW with finding more efficient and cost-effective means of conducting its inspection activities as it faces the challenge of meeting an increased inspection workload. We have included additional information in this report to further clarify the achievements of the CWC and the OPCW.

Both DOD and State commented that our analysis estimating that Russia may not destroy its chemical weapons stockpile until 2027 was misleading. We have clarified our presentation of this analysis to include a discussion of other options being considered for destroying Russia's stockpile. As of March 2004, only one facility capable of destroying nerve agent is being constructed in Russia. Although plans to build additional facilities are being discussed, we note that construction of the U.S-funded facility at Shchuch'ye began 11 years after the U.S. and Russia first agreed to build it.

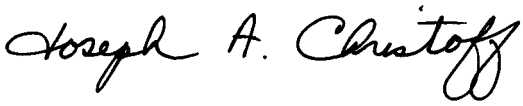
Commerce commended the report for focusing attention on the important issue of member states' achieving compliance with the CWC. The department noted that the U.S. government has taken a leading role at the OPCW in promoting an action plan to ensure all member states' adoption of national law implementing the CWC and is providing assistance to member states to achieve this goal.

The OPCW commended the draft report for reflecting what has been achieved through CWC implementation and recognizing areas where challenges still exist. It noted, however, that some statements as presented in the report do not reflect the views of the Technical Secretariat.

As arranged with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days after the date of this letter. At that time we will send copies of this report to the Secretaries of State, DOD, and Commerce; the Director-General of the OPCW; and other interested congressional committees. We will also make copies available to others upon request. In addition, this report will be available free of charge on the GAO Web site at http://www.gao.gov.

Please contact me at (202) 512-8979 if you or your staff have any questions concerning this report. Another GAO contact and staff acknowledgments are listed in appendix VIII.

Sincerely yours,



Joseph A. Christoff, Director
International Affairs and Trade

Scope and Methodology

To determine what efforts member states have made in meeting key Chemical Weapons Convention (CWC) requirements, we compared these requirements with documents obtained from the Organization for the Prohibition of Chemical Weapons (OPCW) and the Department of State (State), including annual reports that assess member states' compliance with the treaty, surveys assessing the status of member states' compliance with key requirements, and member states' official statements to the 2003 CWC Review Conference. We also obtained information from OPCW officials including the Director-General, the Deputy Director-General, the Administration Division, the Verification and Inspectorate Division, and the Office of Internal Oversight, as well as member states' representatives to the OPCW in The Hague.[1] To assess the reliability of the OPCW data regarding whether the member states are meeting their CWC requirements, which include the destruction of chemical weapons, we reviewed numerous OPCW and U.S. government documents, interviewed OPCW and U.S. officials, and examined OPCW's procedures for ensuring data reliability. We determined that the OPCW data was sufficiently reliable for the purposes of this engagement. In addition, we met with officials from State's Bureau of Arms Control, the Bureau of Nonproliferation, the Bureau of Verification and Compliance, and the Bureau of Intelligence and Research in Washington, D.C., and with representatives of the intelligence community. We also met with officials at the U.S. Mission to the OPCW at The Hague. To obtain information on how the CWC is implemented in the United States we attended the June 2003 Defense Threat Reduction Agency's CWC Orientation Course held in Fairfax, Virginia.

To assess the OPCW's efforts in conducting inspections to ensure compliance with the convention, we analyzed the CWC and various OPCW documents including Verification and Implementation Reports, annual budgets, and other reports. In The Hague, we met with Director-General, the Deputy Director-General, of the OPCW, and with officials from the Administration Division and the Verification and Inspectorate Division. We also visited the inspection laboratory and equipment store at Rijswijk, The Netherlands. To assess the reliability of the OPCW data regarding the number of inspections being conducted in the CWC member states, we reviewed numerous OPCW and U.S. government documents, interviewed OPCW and US officials, and examined OPCW's procedures for ensuring

[1]During our visit to the OPCW in September 2003, we met with representatives from "A State Party," Albania, China, the Czech Republic, Finland, France, Germany, India, Italy, Japan, Malaysia, Norway, the Russian Federation, and the United Kingdom.

data reliability. We determined that the OPCW data was sufficiently reliable for the purposes of this engagement. To assess member states' experiences with OPCW inspections, we spoke with numerous member states' representatives to the OPCW. We also met with officials at the U.S. Mission to the OPCW at The Hague. In addition, we met with officials from State's Bureau of Arms Control, the Bureau of Nonproliferation, and the Bureau of Verification and Compliance. To obtain an understanding of how OPCW inspections are conducted at military chemical weapons-related facilities in the United States, we met with Department of Defense (DOD) officials from the Defense Threat Reduction Agency. We also toured the U.S. chemical weapons destruction facility in Aberdeen, Maryland. To obtain an understanding of how OPCW inspections are conducted at commercial chemical facilities in the United States, we met with Department of Commerce officials from the Bureau of Industry and Security, Office of Nonproliferation Controls and Treaty Compliance, as well as representatives from the American Chemistry Council.

In reviewing Russia's efforts to destroy its chemical weapons stockpile, we visited the Russian Federation and obtained information from Russian government officials at the Chamber of Accounts, the Russian Munitions Agency, and the Ministry of Foreign Affairs. We also met with representatives from the Russian Duma who have funding authority over Russian chemical weapons destruction. In addition, we traveled to Shchuch'ye to observe the U.S.-funded chemical weapons destruction facility and surrounding infrastructure projects. While in Shchuch'ye, we spoke with local government officials and the Cooperative Threat Reduction program funded contractor responsible for building the Shchuch'ye facility. We obtained information from officials in the Bureau of Nonproliferation and the Bureau of Arms Control in the Department of State. At DOD, we met with officials and acquired documents from the Office of the Secretary of Defense for Cooperative Threat Reduction Policy and the Defense Threat Reduction Agency, which set policy and manage the implementation of CTR assistance to the Shchuch'ye facility. We also obtained information on international donors commitments for Russian chemical weapons destruction efforts from DOD and government representatives from Canada, Germany, and the United Kingdom. We obtained data from a variety of sources on the funding and assistance provided for Russian chemical weapon destruction efforts. To assess the reliability of these data, we interviewed officials from the United States, Canada, France, Germany, Great Britain, Italy, Russia, and the OPCW. We also asked these officials to corroborate other nations' data wherever possible. In addition, we cross-checked the data on funding to Russia that

we were given by our different sources. We determined that data on funding and assistance provided for Russian chemical weapon destruction were sufficiently reliable for the purposes of this engagement.

The information on foreign law in this report does not reflect our independent legal analysis, but is based on interviews and secondary sources. We performed our work from April 2003 through March 2004 in accordance with generally accepted government auditing standards.

Location, Number, and Type of Inspections Conducted by the OPCW (April 1997 - December 2002)

Member state	CWPF	CWDF	CWSF	ACW	OCW	Schedule 1	Schedule 2	Schedule 3	DOC	Total
A State Party[a]										**102**
Algeria									3	**3**
Argentina									4	**4**
Australia						3	1	4	1	**9**
Austria								1	1	**2**
Belarus								1	2	**3**
Belgium					2	3	1	3	2	**11**
Bosnia and Herzegovina	2									**2**
Brazil							2	3	1	**6**
Bulgaria							1	1	2	**4**
Canada					2	5			5	**12**
Chile								1	2	**3**
China	2			16		10	21	9	1	**59**
Costa Rica									1	**1**
Croatia									4	**4**
Czech Republic								2	5	**7**
Denmark							1			**1**
Estonia									2	**2**
Federal Republic of Yugoslavia	2					2			1	**5**
Finland						7	2		3	**12**
France	10				6	5	18	7		**46**
Germany					15		29	7		**51**
Hungary								4	1	**5**
India	21	38	13			4	2	7		**85**
Iran	2					1		1	5	**9**
Ireland							3		2	**5**
Italy				2	5		23	3		**33**
Japan	5				4	4	24	8	1	**46**
Lithuania									1	**1**
Mexico								1	2	**3**
Morocco									2	**2**
Netherlands						4	7	2	1	**14**
New Zealand						1			2	**3**

(Continued From Previous Page)

Member state	CWPF	CWDF	CWSF	ACW	OCW	Schedule 1	Schedule 2	Schedule 3	DOC	Total
Norway						5	1		4	**10**
Panama				1						**1**
Poland				1				3	5	**9**
Romania								3	3	**6**
Russian Federation	106	35	35				3	1	1	**181**
Saudi Arabia									2	**2**
Singapore						2		1	2	**5**
Slovak Republic						4		1	3	**8**
Slovenia									3	**3**
South Africa						6		1	2	**9**
Spain						4	3	3		**10**
Sweden						4	1	1	1	**7**
Switzerland						3	11	3		**17**
Turkey								1	3	**4**
Ukraine									5	**5**
United Kingdom	20				6	9	12	5		**52**
United States	86	219	75		3	13	31		3	**430**
Uzbekistan	1							1		**2**
Total	**257**	**292**	**123**	**20**	**43**	**99**	**197**	**89**	**94**	**1,316**

Source: OPCW.

Notes:

CWPF = chemical weapons production facility

CWDF = chemical weapons destruction facility

CWSF = chemical weapons storage facility

ACW = abandoned chemical weapons

OCW = old chemical weapons

DOC = discrete organic chemicals

The inspection data contained in the table is through December 2002 because the OPCW could not provide more current data until it has been approved by the CWC member states. Also, the table does not include inspections of the destruction of hazardous chemical weapons or the emergency destruction of chemical weapons in the United States and Russia.

[a]The OPCW considers the inspection details for A State Party to be confidential.

International and Russian Funding for Chemical Weapons Destruction at Shchuch'ye

As of December 2003, the United States and other international donors have obligated about $525 million to develop, build, and support a chemical weapons destruction facility at Shchuch'ye. Russia has spent about $95 million.[1] These funds support three related areas of effort: (1) the design and construction of the destruction facility, (2) the completion of infrastructure located outside the destruction facility necessary for its operation, and (3) community improvement projects in the town of Shchuch'ye.

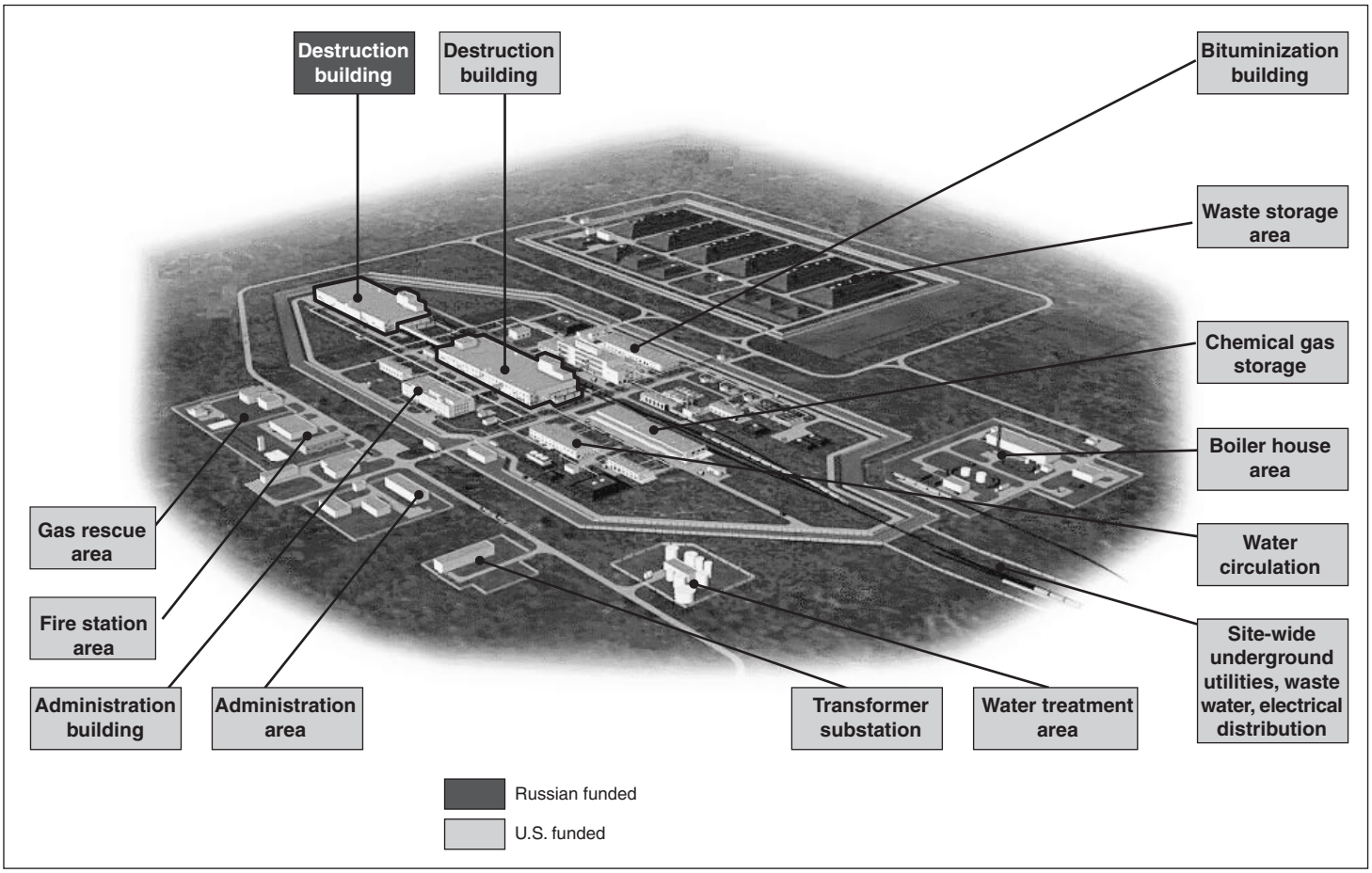
When completed, the Shchuch'ye chemical weapons destruction facility will comprise a complex of about 100 buildings and structures designed to support and complete the destruction of the chemical weapons stored at Shchuch'ye and Kizner, which represents about 30-percent of Russia's total stockpile. The United States, through the Department of Defense's (DOD) Cooperative Threat Reduction program, has obligated more than $460 million for the design, construction, equipment acquisition and installation, systems integration, training, and start-up of the facility.[2] The United States plans to spend a total of more than $1 billion to finance the construction of 99 of the 100 buildings and structures within the facility, including one building where the chemical munitions will be disassembled and the chemical agent destroyed. Russia has agreed to fund the construction of a second destruction building at an estimated cost of $150 million to $175 million, according to a DOD official. Russia spent an estimated $6 to $8 million for the construction of the second destruction building.[3] Figure 3 illustrates the buildings and structures within the destruction facility at Shchuch'ye.

[1]Since 2001, Russia has allocated at least $25 million per year at Shchuch'ye, satisfying a Congressional condition for U.S. assistance.

[2]This includes funding for a Russian chemical analytical lab but does not include funding for demilitarizing former Russian chemical weapons production facilities and securing Russian chemical weapons stockpiles.

[3]According to DOD and Russian officials, international donors may provide assistance for construction of the Russian destruction building at Shchuch'ye.

Figure 3: Chemical Weapons Destruction Facility at Shchuch'ye



Source: Department of Defense.

In March 2003, the United States began construction of the Shchuch'ye facility. Figure 4 shows the completed foundation work for the U.S. destruction building as of November 2003. Prior DOD estimates indicated that the facility would begin destroying chemical weapons in August 2008. However, in October 2003, DOD stated the facility may not be operational until July 2009.

Figure 4: Construction of the U.S. Destruction Building at Shchuch'ye, November 2003

Source: GAO.

Based on the U.S. design, Russia also began constructing its destruction building at the Shchuch'ye complex in 2003, according to a DOD official, but Russia has not provided a completion date for its destruction building. Figure 5 shows the uncompleted foundation work on the Russian funded destruction building, as of November 2003.

Figure 5: Construction of the Russian Destruction Building at Shchuch'ye, November 2003

Source: GAO.

The operation of the chemical weapons destruction facility at Shchuch'ye depends upon the completion of several infrastructure projects, such as the installation of natural gas and water lines and an electric distribution station. As of October 2003, Russia had spent more than $56 million to support those projects. International donors have spent about $65 million for these and other infrastructure projects, such as the construction of access roads.[4] About $66 million of infrastructure projects, including the installation of sewage and fiber optic lines, remain unfunded. In September 2003, Russia signed an agreement with the United States stating that it would complete all necessary infrastructure to support initial testing of the Shchuch'ye facility.

[4]International donors include Canada, the Czech Republic, the European Union, Italy, Norway, the Nuclear Threat Initiative, and the United Kingdom.

In addition, Russian and U.S. officials stated that the town of Shchuch'ye lacks adequate housing, schools, roads, and other services to support the expected influx of destruction facility workers and their families. As of October 2003, the Russian government had spent more than $31 million for a variety of community improvement projects in Shchuch'ye, including a new school, improved medical facilities, and new housing.

Comments from the Department of State

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

United States Department of State

Assistant Secretary and Chief Financial Officer

Washington, D.C. 20520

MAR 19 2004

Dear Ms. Williams-Bridgers:

We appreciate the opportunity to review your draft report, "NONPROLIFERATION: Delays in Implementing the Chemical Weapons Convention Raise Concerns About Proliferation,"GAO-04-361, GAO Job Code 320186.

The enclosed Department of State comments are provided for incorporation with this letter as an appendix to the final report.

If you have any questions concerning this response, please contact Richard D'Andrea, Action Officer, Bureau of Arms Control, at (202) 647-5091.

Sincerely,

Christopher B. Burnham

cc: GAO – Beth Hoffman Leon
AC – Donald Mahley
State/OIG – Luther Atkins
State/H – Paul Kelly

Department of State Comments on GAO Draft Report
NONPROLIFERATION: Delays in Implementing the Chemical Weapons Convention Raise Concerns About Proliferation
(GAO-04-361, GAO Job Code 320186)

Thank you for the opportunity to review and comment on your draft report "Nonproliferation, Delays in Implementing the Chemical Weapons Convention Raise Concerns About Proliferation". The GAO draft report takes a "glass half empty" approach to CWC implementation as opposed to an unbiased policy neutral presentation. To its credit, the draft report documents ongoing efforts to help all States Parties meet all of their CWC implementation obligations, and contains no recommendations. The lack of recommendations implies that the GAO found no additional actions that should be taken to address the so-called "concerns about proliferation." However, it is regrettable that the GAO draft report tarnishes the bright success that has thus far been the reality of CWC implementation. While the vast majority of the facts contained in the draft report are accurate, their portrayal is not balanced, is misleading, incomplete, and in a few places, incorrect as these comments will point out. The report leaves out positive CWC accomplishments such as continuous growth in the number of States Parties, identification and correction of management inefficiencies leading to ever improving staff functioning and prudent fiscal management, and execution of an unprecedented and highly effective inspection regime worldwide. Reading this report, the uninitiated reader would likely draw errant conclusions concerning the effectiveness of CWC implementation.

See comment 1.

The GAO draft report, "Results in Brief," points out that member states are experiencing delays in destroying their chemical weapons stockpiles, most have not adopted national laws to criminalize the possession and use of chemical weapons, and an unspecified number of states have not submitted timely and accurate declarations of their CWC-related activities. Omitted is the fact that since entry into force the CWC caused the discovery of two previously unknown CW stockpiles, and an acceleration of CW destruction efforts. Omitted is the fact that of the 158 States Parties (as of the report's December 2003 cut off date) only 61 have reported CWC-declarable facilities, all 61 have submitted declarations (four of which may be incomplete), and 56 of the 61 have adopted implementing laws.

See comment 2.

See comment 3.

See comment 4.

The GAO notes that Russia has spent about $95 million for CW destruction efforts, as compared to $575 million spent by international donors. However, only in Appendix III is it explained that this appears to only represent Russian spending at Shchuch'ye. The $95 million does not include Russian spending at all other sites and is therefore misleading. Russia budgeted roughly $420 million for all CW demilitarization-related activities between 2001-2003, and Russia's approved budget for 2004 calls for about $180 million more. This Administration has repeatedly urged the Russian Federation to further increase its spending on CW destruction efforts.

See comment 5.

GAO estimates that the United States and Russia will not complete CW destruction until 2014 and 2027 respectively (CWC extended deadline is 2012). The 2014 date is not substantiated. The 2027 date assumes a single nerve agent destruction facility, Shchuch'ye, yet elsewhere the report cites Russian plans for three additional nerve agent destruction facilities.

See comment 6.

The GAO report accurately notes that Russia has yet to develop a credible and comprehensive CW destruction plan. The GAO offered option of delaying further U.S. financial assistance for the Shchuch'ye facility until all elements of Russia's destruction plan are determined could create an even greater threat by further delaying the destruction of those elements of Russia's CW stockpile that represent the greatest proliferation concern, namely the man-portable munitions at Shchuch'ye and Kizner.

See comment 7.

One of the more misleading statements in the GAO draft report is the statement that the OPCW has conducted 514 inspections of the 5,460 declared commercial facilities that, "pose a greater proliferation (sic) because they produce dual-use chemicals." The number of inspections is correct. The number of declared commercial facilities is correct. However, only 966 of the declared commercial facilities are known to produce dual-use chemicals. The remaining facilities produce what the CWC defines as "discrete organic chemicals," which are for the most part, organic chemicals that are not dual-use and are of little or no proliferation concern to the CWC. It is the declared facilities themselves that are of treaty interest because they could possibly be converted to the production of CW-related chemicals and are therefore included in the CWC comprehensive nonproliferation coverage. The vast majority of the industry inspections have thus far been targeted at those facilities actually producing dual-use chemicals.

See comment 8.

The GAO draft report states that as of December 2003, the Technical Secretariat conducted 965 inspections at 167 of 190 declared military sites leading the reader to wonder, "What about the other 23?" The report omits the fact that all-existing CW production, storage, and destruction facilities have been inspected multiple times. "Military" facilities not inspected are either CW production facilities destroyed before CWC entry into force or sites declared as having old or abandoned chemical weapons that pose little or no proliferation concern.

The following are GAO's comments on the Department of State letter dated March 19, 2004.

GAO Comments

1. State asserts that this report did not sufficiently present positive CWC accomplishments such as the continuous growth in the number of CWC member states, the identification and correction of management inefficiencies at the OPCW, and the effective implementation of the OPCW inspection regime. In response, we included additional information in this report to acknowledge the growth in the number of member states. We also cite that Libya, the sixth possessor state, acceded to the CWC in February 2004. This report does not discuss the management of the OPCW, as we previously reported on the management of the organization under the leadership of the former Director-General, Jose Bustani.[1] We did not review the management of the OPCW under the current Director-General, Rogelio Pfirter but acknowledge that he is committed to implementing management reforms. Finally, this report clearly articulates that the OPCW has established a credible inspection regime.

2. State concluded that the entry into force of the CWC caused two previously unknown stockpiles to be discovered and accelerated chemical weapons destruction efforts. In its comments, however, State did not identify the member states that possess the unknown stockpiles.

3. State cites that of the 158 member states, 56 of 61 member states with CWC-declarable facilities have adopted national laws. This statement implies that only countries with CWC-declarable facilities should adopt national implementing laws. As stated in the report, the CWC requires all member states to adopt national implementing laws. Assistant Secretary of State for Arms Control stated in his remarks to the 2003 CWC Review Conference that the lack of national implementing laws among member states is troubling "in light of the efforts of Al Qaeda and other terrorist organizations to acquire chemical weapons."

[1]U.S. General Accounting Office, *Chemical Weapons: Organization for the Prohibition of Chemical Weapons Needs Comprehensive Plan to Correct Budgeting Weaknesses*, GAO-03-5 (Washington, D.C.: Oct. 24, 2002).

4. State indicated that Russia budgeted roughly $420 million for all of its chemical weapons demilitarization-related activities between 2001 and 2003 and that Russia's approved 2004 budget requests about $180 million more. We have included this additional information in the report, as it was not previously provided to us.

5. State contends that our estimated deadline of 2014 for the complete destruction of the U.S. chemical weapons stockpile is unsubstantiated. The department further asserts that our 2027 estimate for the completion of Russia's chemical weapons destruction assumes a single nerve agent destruction facility, at Schuch'ye and that we omit the possibility of constructing additional destruction facilities. We have clarified the 2014 deadline by adding information citing a U.S. chemical weapons destruction facility schedule that indicates that the facility will not complete its destruction operations until 2014. While we acknowledge that Russia may construct additional destruction facilities, our analysis is based on the destruction capacity of the one nerve agent destruction facility currently under construction. At this time, there are no other nerve agent destruction facilities under construction and no definitive plans for building additional facilities. Furthermore, Russia has agreed to eliminate all nerve agent at Shchuch'ye, unless otherwise agreed in writing. In a March 2004 congressional testimony, the Deputy Undersecretary of Defense for Technology Security Policy and Counterproliferation stated that the Shchuch'ye facility "will destroy all of Russia's nerve agent inventory." While Russian officials have indicated that Russia may construct neutralization facilities at Pochep, Leonidovka, and Maradovski, a detailed plan and/or cost estimates have yet to be provided.

6. State contends that the option of delaying further assistance to Russia could result in a greater proliferation threat. State implies that we are only presenting one option, when in fact this report provides numerous options, including providing additional assistance for Russian chemical weapons destruction. Furthermore, Congress has previously exercised the option of withholding U.S. assistance for Russian chemical weapons destruction.

7. State claims that facilities that produce discrete organic chemicals (DOC) are of little or no proliferation concern to the CWC. However, information we obtained from State, Commerce, DOD, and the OPCW, contradicts this statement. Officials and documents from all four organizations clearly expressed concern over the potential

proliferation risks from DOC facilities. This report, therefore, indicates that these facilities produce a wide range of common commercial chemicals and may be capable of producing chemical weapons.

8. State cites that this report omits the fact that all existing chemical weapons production, storage, and destruction facilities have been inspected multiple times. To further clarify the inspection information contained in this report, we have included the information.

Comments from the Department of Defense

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
2900 DEFENSE PENTAGON
WASHINGTON, DC 20301-2900

INTERNATIONAL SECURITY POLICY

March 18, 2004

Mr. Joseph A. Christoff,
Director, International Affairs and Trade
U.S. General Accounting Office
441 G Street, N.W., Washington, D.C. 20548

Dear Mr. Christoff

This is the Department of Defense (DoD) response to the GAO draft report, 'NONPROLIFERATION: Delays in Implementing the Chemical Weapons Convention Raise Concerns About Proliferation,' dated March 4, 2004 (GAO Code 320186/GAO-04-361).

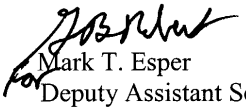
The report makes no recommendations to the DoD and the Department has no significant issues with the draft report; however, the DoD would like to offer the below comments we believe are important to consider regarding the reports findings:

> The report focuses on several facets of the Convention, which in GAO's view, is delaying implementation of the Convention thus, increasing the risk of chemical weapon proliferation. The DoD acknowledges that some member-States have not totally fulfilled their obligations under the Provisions of the Convention such as establishing national implementing legislation, while others such as the United States and the Russian Federation are experiencing delays in the destruction of their CW stockpiles. The DoD also recognizes the resource challenges facing the Organization for the Prohibition of Chemical Weapons (OPCW) in implementing the Convention. Finally, we acknowledge the need for universal ratification of the Convention. What is absent from the report however, is an assessment which determines the degree of risk (if any) the aforementioned factors create regarding the proliferation of chemical weapons. Without such an assessment, it's difficult to assure the proper perspective is communicated to the reader.

Specific comments are also attached which we believe will make the report more technically accurate.

We appreciate having an opportunity to comment on the draft report.

Sincerely,



for Mark T. Esper
Deputy Assistant Secretary of Defense
Negotiations Policy

Department of Defense Comments
GAO Draft March 2004 Report
NONPROLIFERATION
Delays in Implementing the Chemical Weapons Convention Raise Concerns About Proliferation.

A. General Comments:

1. Little to no Analysis:

See comment 1.

- The report provides little analysis. For example, we agree it's important to note there are member-States who have little or no implementing legislation or and we have a ways to go in achieving universal membership; however, there's no analysis to help conclude how many of those States lacking implementing legislation or are not member-States truly pose a proliferation risk as a result. For example, are 30 countries not having national implementing legislation in place worse than 5 countries not having legislation in place? Is having 30 countries not members to the CWC, worse than 5 countries not being members? What is a bigger proliferation concern – delays in destroying existing CW stockpiles or low visibility of commercial facility activities?

See comment 2.

- The report treats each of the stated problem areas in implementing the Convention as being equivalent in importance – which is not the case. Some of the central non-proliferation aspects of the CWC were missed or not given the visibility it should have been given. For example, very little discussion was provided on commercial industry. The central question regarding industry is what ensures that all reportable scheduled chemical production facilities or discrete organic chemicals (DOC) have actually been declared? Based on the dual use-nature of DOC producing facilities, thus existence of a potential proliferation risk, how many are being inspected and what is the proliferation risk associated with not inspecting them? Again, there was no analysis conducted in these areas that contributes in a significant way to the report's findings/conclusions.

See comment 3.

2. Report is not conducive to achieving a balanced perspective. The report provides a "heavy-handed" account of CW destruction delays; however, the report makes no mention of the progress being made in many areas which are central to the non-proliferation of chemical weapons. As such, readers of the report could have a skewed perspective regarding the overall effectiveness of the CWC by not providing much in the way of acknowledging OPCW, U.S. and other member-State successes in implementing the CWC, as well as the significant changes that have and are occurring within the OPCW to enhance its functioning and performance. Examples include:

- Progress made in eliminating former CW production capacities. The U.S. recently reported 81% of its capacity destroyed – 16 months ahead of its destruction milestone.
- Progress in the destruction of all Category 2 and 3 CW munitions-related items.
- Inspectors having nearly unfettered access to declared sites and facilities.

- A recently establish tenure Policy which compels turnover within the OPCW technical inspectorate for the purpose of maintaining a quality inspectorate staff.

- OPCW Technical Secretariat and U.S. initiatives to reduce OPCW organizational operating costs, while improving verification effectiveness.

- Continued progress and emphasis being placed on Technical Secretariat challenge inspection readiness.

- Recent approval and implementation of OPCW Universality and National Implementation Action Plans, in addition to U.S. strategy plans being implemented for the same areas. There are now 161 nations who are Party to the CWC, the most recent and more notable member being Libya.

- Activities and continuing efforts in addressing and resolving CW-related compliance concerns.

3. CW Destruction Delays:

- U.S. CW Destruction - With regards to U.S. CW destruction efforts, DoD acknowledges we have a number of ongoing activities related to the US Chemical Demilitarization Program, thus challenges exist meeting the final destruction deadline of 2012. It's important to note in the report that the DoD remains fully committed to destroying the entire stockpile within the final CWC deadline date.

See comment 4.

- Russian CW Destruction – We're concerned with one of GAO's stated options to delay financial assistance for Russia's program. While delaying or stopping financial assistance may be needed to compel the Russian Federation to provide better cooperation with the international community, it likewise may push the Russian Federation in the opposite direction such as forgoing attempts to produce a credible plan, thus increasing the vulnerability of diversion or theft of the chemical weapons.

See comment 5.

- Other member-State CW Destruction - The report does not adequately point out that two additional stockpiles have been added to the list of CW being destroyed since entry into force, with plans to accelerate destruction of these stockpiles.

The following are GAO's comments on the Department of Defense letter dated March 18, 2004.

GAO Comments

1. DOD stated that this report provides little or no analysis to conclude how many of those member states lacking implementing legislation truly pose a proliferation risk. In its comments, however, DOD does not offer what criteria one would use to make a determination about which member states are more important to CWC implementation. As stated in this report, the CWC requires all member states to adopt national implementing legislation after ratifying the convention.

2. According to DOD, this report does not give the visibility it should have to some of the central nonproliferation aspects of the CWC, such as a discussion of the proliferation risks associated with discrete organic chemical facilities. This report includes a specific discussion of how such dual-use facilities pose a proliferation threat because they may conceal CWC-prohibited activities. This report does not further elaborate on the degree of proliferation posed by these facilities as such information is classified.

3. DOD believes that this report is not conducive to providing a balanced perspective because it does not acknowledge successes in implementing the CWC. For example, DOD cites that progress has been made in eliminating former chemical weapons production facilities and destroying category 2 and 3 chemical weapons related munitions. Such successes, while important, remain secondary to the CWC's primary goal of destroying actual chemical weapons. As stated in the report, the CWC is the only multilateral treaty that seeks to eliminate an entire category of weapons of mass destruction under an established time frame and verify their destruction through inspections. DOD also asserts that this report does not recognize the significant changes occurring within the OPCW. This report does not assess OPCW functions or performance because we conducted such a review of the OPCW in October 2002. This report does, however, credit the organization with finding more efficient and cost-effective means of conducting its inspection activities as it faces the challenge of meeting an increased inspection workload. In addition, we have provided information in this report to further clarify that OPCW inspectors have access to declared facilities and that there are now 161 member states to the OPCW, including Libya.

4. DOD raised a concern about this report's option to delay financial assistance for Russia's destruction program. The report provides a variety of policy options for decision-makers including providing more financial assistance to finance the construction of additional destruction facilities in Russia. Furthermore, Congress has restricted U.S. assistance for Russian chemical weapons destruction in the past.

5. DOD stated that this report does not adequately point out that two additional stockpiles have been added to the list of chemical weapons being destroyed. In its comments, however, DOD did not identify the member states that possess these stockpiles. If DOD had provided clarification, such information could have been included in this report, provided that the information was not classified.

Comments from the Department of Commerce

UNITED STATES DEPARTMENT OF COMMERCE
Assistant Secretary for Export Administration
Washington, D.C. 20230

March 18, 2004

Mr. Joseph A. Christoff
Director, International Affairs and Trade
General Accounting Office
Washington, DC 20548

Dear Mr. Christoff:

I am writing with regard to the General Accounting Office's (GAO) draft report entitled, *Nonproliferation: Delays in Implementing the Chemical Weapons Convention Raise Concerns About Nonproliferation (GAO-04-361).*

The Department of Commerce has reviewed the draft report and commends the GAO for focusing attention on the important issue of achieving compliance with the Chemical Weapons Convention (CWC). In this regard, it is important to recognize that the U.S. Government has taken a lead role in addressing shortcomings in overall treaty implementation, including taking the initiative at the CWC Review Conference to establish a plan of action to promote universal compliance with Article VII by 2005. The U.S. Government is providing assistance to States Parties and the Technical Secretariat to achieve this goal and is developing guidelines for making compliance assessments by the 2005 Conference of States Parties.

On this point, and for other specific items, we have attached textual comments for your consideration.

Thank you for the opportunity to provide comments on the draft report.

Sincerely,

Peter Lichtenbaum

Comments from the Organization for the Prohibition of Chemical Weapons

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

ORGANISATION FOR THE PROHIBITION OF CHEMICAL WEAPONS

Director-General

The Hague, 25 March 2004

L/ODG/83218/04

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The Netherlands
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Dear Mr. Christoff,

I would like to thank you for the opportunity to comment on the draft GAO report "Delays in Implementing the Chemical Weapons Convention Raise Concerns About Proliferation" (GAO-04-361), dated March 2004.

See comment 1.

The report is a commendable effort reflecting what has been achieved through implementation of the CWC and areas where challenges still exist. However, it should be noted that some statements, as presented in the report, do not reflect the views of the Technical Secretariat.

Due to the limited time to respond we have concentrated on the major issues. The comments to the draft report are presented in the document attached.

I would like to reiterate my personal thanks and those of my staff for the open and fair discussions conducted during your staff's visit in The Hague and remain at your disposal for any issues related to the OPCW work in the future.

Yours sincerely,

Rogelio Pfirter

Enclosure

Mr Joseph A. Christoff
Director, International Trade and Affairs
U.S. General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

The following is GAO's comment on the Organization for the Prohibition of Chemical Weapons' letter dated March 25, 2004.

GAO Comment

1. We made changes to this report to accurately reflect the technical comments we received from the OPCW.

GAO Contact and Staff Acknowledgments

GAO Contact

David Maurer (202) 512-9627

Acknowledgments

In addition to the individual named above, Beth A. Hoffman León, Nanette J. Ryen, Julie A. Chamberlain, and Lynn Cothern made key contributions to this report. Etana Finkler and Pierre R. Toureille also provided assistance.

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