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Ratification, Implementation, Compliance and Verification
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CWC INDUSTRY OUTREACH III

FINAL REPORT

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PREFACE

The 1995 Outreach III Seminars were the third in the series that began in 1993 with Outreach I and continued in 1994 with Outreach II. The work for Outreach III was accomplished under Task Order 94-09 (EAI) of ACDA Contract AC03MC1002. The final deliverable for this task order is this final report.

The final report is published in two volumes. Volume one describes the back ground and purpose of the seminars, the technical approach and methods used to establish the seminars, the concerns of the U.S. Chemical Industry that were expressed at the seminars, and recommendations for specific USG agencies and departments for actions to address the industry concerns. Volume two contains the scripts used by the speakers with the slides for those scripts, the biographical sketches of the speakers, important definitions of treaty related terms, the list of Schedule Chemicals, sample draft declaration forms, and the official list of those who attended each seminar.

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INTRODUCTORY NOTE

During April and May 1995, the Arms Control and Disarmament Agency, in cooperation with the Department of Commerce, sponsored a series of six regional seminars for the chemical and related industries on the Chemical Weapons Convention, which could enter into force as early as spring 1996. The locations were Atlanta GA, Oakland CA, Newark NJ, Arlington VA, Houston TX, and Detroit MI.

The scripts, slides and supplemental materials in this volume comprise the formal presentation given in each location.

The scripts in Annex I are those used by the presenters, as undated to the final seminar.

Annex II contains the computer-driven lightbox slides used by the presenters. The slides are printed two to a page, in the order in which they were projected, as as distributed to the audience at registration. Blank half-pages correspond to blank slide projected during the presentations. The groups of slides are presented in the order of the seminar, matching the order of the scripts in Annex I

The scripts contain notations where each slide was to be first shown, giving the location of each slide in this volume (Volume 2). For example, **[II-7B]** means that the slide is on page 7 of Annex II, on the lower (B) half of the page.

Annex III contains the supplemental materials given to each participant: agenda (omitted in this volume, see Figure A-7 in Volume 1), supplements to the slides for presentations on declaration policies and reporting examples, a guide to determining CWC industry reporting requirements, biographical sketches of all of the presenters at any of the six seminars, and a form for questions and comments from the audience. The presentation slides were also included in the Supplemental Materials volume handed out to the attendees, but in this Volume two the slides are presented in Annex II.

Annex IV contains the full list of attendees at each site, with those from the chemical and related industries in Part IV.1 and those from other organizations in Part IV.2.

ANNEX I

PRESENTATION SCRIPTS FOR "CWC INDUSTRY OUTREACH III"

I.1WELCOME

[II-5A] Good morning and welcome to today's seminar on the Chemical Weapons Convention sponsored by the U.S. Arms Control and Disarmament Agency and the Department of Commerce. I am Rick D'Andrea, the project officer for this seminar. On behalf of the Honorable Ronald H. Brown, Secretary of Commerce; the Honerable John D. Holum, Director of the Arms Control and Disarmament Agency; and all of us involved in presenting this seminar, it is a distinct pleasure to have the opportunity to talk with you about the Chemical Weapons Convention or "CWC" as it is commonly called. For those veterans of previous seminars, this will be somewhat of a review loaded with fresh details developed since last year. For those of you new to the CWC, the seminar will introduce you to and familiarize you with the treaty, underscore its implications for U.S. industry, and update you on treaty implementation.

[II-5B] The seminar objectives, as shown on this slide, are to provide as clear an understanding as possible of CWC rights and obligations, to solicit your ideas and concerns and include them in the government's preparations for treaty implementation, and to suggest things you can do now to get ready for the CWC. This is no small task given the limited amount of time we have available today, but I think that we can cover a lot of ground, answer your questions, and conclude on time, having fully met today's objectives.

You should have received a copy of the CWC when you registered [hold up copy of CWC] this morning. Additionally, you should have been given a pamphlet of supplemental materials [hold this up] that contains today's schedule, highlights key CWC definitions and other information, has the biographical sketches of the presenters and includes a copy of all of the slides we will be using in today's seminar. Here is today's schedule. **[II-6A]**

This is your seminar, and we are prepared to take it in whatever direction you would like in order to best address CWC-related topics that most interest you. While we will attempt to stay on schedule, you can set the pace by asking questions or further discussing CWC topics of interest. We are keenly interested in your questions, impressions and concerns so they may be fully addressed as the treaty moves forward to ratification, implementation, and entry into force. Questions are appropriate at anytime. Please note that there is a panel discussion this afternoon after the formal presentations during which it will be possible to further address your questions. Additionally, we will stay and address questions after the seminar for as long as you like. There is a question form on page 27 of your supplemental materials on which you can write questions you would like the panel to answer. We would prefer written questions because they allow us to prepare answers more fully and they provide an accurate record of the seminar proceedings. Please put your filled out question forms in the box located in the back of the room as soon as possible or hand them to one of the presenters. **[SLIDE OFF]**

Let me now introduce the members of the seminar team: Susan Berger, Gordon Burck, Leo Zeftel, Peter Mason, Mike Walls, and it's a special honor to introduce our lead off speaker, the newest member of the ACDA CWC team, appointed on May 3rd as Special Advisor to the President and to the ACDA Director on the Chemical Weapons Convention, one of the first members of Congress to recognize the CWC's merits and importance -- Martin Lancaster.

I.2 CWC OVERVIEW

[II-7] The Chemical Weapons Convention is a multilateral arms control treaty that will, upon entry into force, comprehensively ban chemical weapons. The United States and 158 other countries have signed the CWC, however, its provisions are not binding until the CWC is ratified and enters into force. Entry into force will occur 180 days after the 65th instrument of ratification is deposited with the United Nations. Thus far, 27 countries have ratified the treaty. In the U.S., treaty ratifications requires the advise and consent of the Senate via a 2/3 majority vote. I'll be updating you on where we are in the ratification process later in this presentation.

The chemical producers and other CWC-affected industries are typically surprised to learn that the CWC has direct application to the industrial sector in general, and perhaps their company in particular. In order to gain a clear understanding of how and why the CWC affects industry, I'd like to sketch for you the treaty's origin, general provisions, and the organizations responsible for CWC implementation. **[SLIDE OFF]**

Efforts to eliminate the threat of chemical weapons (CW) date from the mid-19th century. Until recently, however, the major achievement was the Geneva Protocol of 1925, which banned the use of chemical weapons in warfare. When the United States finally ratified the Protocol in 1975, we reserved the right to retaliate with chemical weapons if they were used first against us. Even though CW use was banned, the U.S. was legally able to build and maintain a formidable retaliatory chemical warfare capability.

The need for a comprehensive CW arms control treaty was brought about by the lack of effectiveness of the Geneva Protocol in preventing the spread of chemical weapons, and the build up of large Soviet and U.S. CW stockpiles. In considering how to prohibit the preparations for chemical warfare, as well as actual use of chemical weapons, nations concluded that the only way to insure that chemical weapons were not used in the future was to eliminate them, prohibit their reintroduction, and provide the means to verify both.

The Chemical Weapons Convention was negotiated within a multi-national forum called the Conference on Disarmament, which is based in Geneva, Switzerland. This 39 nation body, along with some 35 additional observer nations, labored over two decades to negotiate a chemical weapons treaty that would ban not only the use, but the acquisition, development, production, stockpiling and transfer of chemical weapons, as well as provide assistance to nations attacked or threatened by chemical weapons. The CWC, in its final form, based on a draft introduced by then Vice President George Bush in April 1984, reflects the results of a series of compromises among the participating nations. These compromises satisfied all concerned sufficiently well that the CWC was completed in September 1992, endorsed by the United Nations General Assembly in November 1992, and opened for signature in Paris on January 13, 1993. A total of 159 countries have signed the treaty thus far and 27 of those have ratified it. Sixty-five ratifications are required before the CWC can enter into force.

During the negotiations leading up to the successful conclusion of the treaty, U.S. negotiators repeatedly consulted with industry and defended industry positions on such key issues as protection of confidential business information, use of facility agreements in routine inspections of declared industry facilities, and limits on intrusiveness. These industry-promulgated positions are now a part of the final document. We hope that the

close cooperation between government and industry during the CWC negotiations will continue through the ratification process and into CWC implementation and beyond.

A closer look at the CWC reveals that in addition to its broad coverage, there is an overarching balance between verification and protection. The CWC would be hollow if there were no credible mechanism to verify that States Parties are in fact abiding by the terms of the treaty. Hence there is an inspection regime built in that allows, among other things, an international treaty organization to conduct inspections to verify the accuracy of the CWC information declared by States Parties. This regime also allows a State Party to request a challenge inspection of any site or facility of another State Party if there is credible reason to believe that the treaty is being violated. However, to protect honest States Parties from abusive or frivolous challenges and to protect individual privacy rights and unimpeded commerce, there are powerful protections built into the treaty that counterbalance the verification provisions. (Dr. Leo Zeftel) will outline many of these protections, especially those associated with inspections, later in the seminar.

Now let's take a closer look at the CWC. **[II-8A]** The CWC consists of a Preamble, 24 Articles, and three Annexes. The Preamble states the object and purpose of the Convention. The articles support the Convention's object and purpose by stating the essential treaty provisions. The annexes provide the necessary details, such as the listing of Scheduled chemicals, specifics of the verification regime, including declarations and reports, and confidentiality guidelines. The Object and Purpose of the CWC as outlined in the Preamble, page one of the treaty text, is summarized on this slide. **[II-8B]**

Note that the elimination of chemical weapons is framed within a broader disarmament context fully cognizant and supportive of, among other things, free trade in chemicals and international cooperation in chemical technology for peaceful purposes.

The general treaty obligations are contained in Article I, page 3 of the text. **[II-9A]** Under Article I, and this is the specific treaty language, each State Party undertakes never under any circumstances to develop, produce, acquire, stockpile, retain, transfer, use, engage in any military preparations to use, or assist others to acquire chemical weapons. **[II-9B]** Each State Party also agrees to destroy chemical weapons it possesses, destroy chemical weapons it abandoned on the territory of another state party, destroy its chemical weapons production facilities and agrees not to use riot control agents as a method of warfare. This is exactly what one might expect of a chemical weapons arms control treaty, and at first glance this has no apparent application to industry unless your company was involved in the past production of chemical weapons. **[II-10]**

However, when you take a look at how the CWC defines chemical weapon, the connection to industry becomes clear. As shown on this slide, "Chemical weapon" not only means munitions and devices specifically designed to cause death or other harm through the toxic properties of the toxic chemicals, but includes the toxic chemicals and their precursors, except where intended for purposes not prohibited under the convention. Also included is any equipment specifically designed for use directly in connection with the employment of such munitions and devices. The treaty goes on in Article II (page 4 of the treaty text) to define the terms "toxic chemical" and "precursor," and other related terms. These, and other key terms are included in your supplemental materials in the CWC Definitions section. **[SLIDE OFF]**

In the Annex on Chemicals, pages 48-53, the CWC lists specific chemicals and families of chemicals that are explicitly covered by the treaty. These lists are called schedules and have threshold quantities associated with them. Activities above these thresholds trigger declaration and reporting requirements which we will cover in detail later in the seminar. The schedules of chemicals and reporting thresholds are also included in your supplemental materials. In addition to the reporting requirements for scheduled chemicals, **[II-11]** the CWC sets a quantity reporting threshold of 200 metric tons/year on the production of what it calls "discrete organic chemicals" whose definition is shown on this slide. The treaty negotiators put the "discrete organic" category in the treaty to cover chemical production facilities potentially capable of making militarily significant quantities of chemical agents and/or their precursor chemicals. The important point for industry is that the inclusion within the scope of the definition of a chemical weapon of chemical warfare agents and their precursors as well as CW-capable production facilities broadens the treaty's coverage to include a wide range of industrial facilities that otherwise would have no direct connection to chemical weapons. **[SLIDE OFF]**

In order to visualize how the CWC affects your company and the U.S. Government, it is important that you have a basic understanding of how the CWC will be administered internationally. The CWC, for all of its 186 pages, does not include such details as inspection procedures, required inspector qualifications, declaration formats, specifications of the information management system needed to process and maintain the declaration data base, financial & personnel regulations for the treaty organization, and numerous other administrative details needed to bring the CWC into force. Consequently, the CWC contains provisions for the establishment of a Preparatory Commission or PrepCom for short, to develop the administrative and operational infrastructure needed to run a treaty organization of international dimensions. **[II-12A]**

The PrepCom, based in The Hague, The Netherlands, has been diligently working since its inception on February 8, 1993, to develop necessary CWC implementation details. The U.S. maintains a delegation at the PrepCom to ensure that U.S. military, commercial, and private interests are fully represented and considered in PrepCom decisions. The PrepCom organizational structure is shown on this slide. It is composed of all signatory nations and requires a simple majority to convene in plenary session. Substantive work on technical and administrative details attendant to CWC implementation is performed by various expert groups organized under the two working groups shown on the slide. Membership in expert groups is voluntary and participation by all PrepCom members is welcomed. The PrepCom includes a Provisional Technical Secretariat, commonly referred to as the PTS. The PTS provides administrative support to the commission. Current PTS strength is approximately 110 international civil servants. The international organization will grow to an estimated 450 personnel including some 212 inspectors by the time the CWC enters into force. The organization is funded by the signatory nations, which are assessed according to a United Nations scale. Under that formula, the United States pays 25% of the assessed PrepCom costs, which amounted to about $4.7 million for 1994. Upon CWC entry into force, the PrepCom will cease to exist and the Organization for the Prohibition of Chemical Weapons (OPCW) will be established to implement and verify compliance with the treaty. **[II-12B]**

The OPCW organization is shown on this slide. Each CWC signatory that ratifies the CWC will have membership in the Conference of States Parties, which is the supreme legislative and policy body set up under the CWC. The OPCW will meet at least annually to review CWC progress and act on any open issues. The Executive Council, which

makes executive policy and administrative decisions for the OPCW on behalf of the full Conference, will consist of 41 States Parties, including the leading chemical producing nations, selected on a geographic basis for a two-year term. The Executive Council will be involved in managing the organization and enforcing the CWC. The daily functions of the OPCW will be performed by the Technical Secretariat, which includes the Inspectorate, the inspecting arm of the OPCW. The OPCW will be the core of the Chemical Weapons Convention and the focus of its implementation efforts. Principal OPCW staff will be nominated by States Parties. This means that only those nations that have ratified the treaty will be represented. **[II-13A]**

The duties of the OPCW are straightforward. Collecting and analyzing data submitted by States Parties is part of its overall compliance monitoring effort. The data will, to a significant degree, serve as the basis for initiating inspections. These inspections will be conducted to verify declarations and demonstrate CWC compliance, principally by verifying the elimination of existing Chemicals Weapons stocks and the non-production of weapons agents. The OPCW also has an important responsibility to review requests for challenge inspections and to help resolve any disputes. These duties are to be accomplished to the highest professional standards with careful regard for the protection of sensitive information. **[II-13B]**

Let's take a summary look at the CWC obligations with a focus on how they pertain to industry. First of all, industry is proscribed from the manufacture of Chemical Weapons. Since no one in this room has any interest in doing that, this prohibition will probably represent no hardship. A more relevant obligation for many of you is the obligation to submit declarations on past, present and planned production, consumption or processing of certain chemicals identified in the CWC that could potentially be used to make chemical weapons. Facilities that file CWC data declarations will be subject to inspections to verify the accuracy of the declared information. States Parties will also be subject to challenge inspections which could theoretically occur anywhere, anytime after CWC entry into force at sites suspected of violating the treaty. The United States will establish an official entity called the National Authority to oversee domestic CWC implementation and compliance actions and to serve as the U.S. Point of Contact with the OPCW and other States Parties. The National Authority will serve as the mediator in communications between a private company and the OPCW. Maintaining close contact with the Department of Commerce who will in turn be drictly linked to the National Authority will therefore be necessary in complying with the CWC and cooperating with the OPCW verification process. Lastly, the CWC obligates States Parties to enact implementing legislation that, among other things, provides penalties for treaty violations. Peter Mason, who helped write the draft legislation, will discuss it with you this afternoon.

How is all of this going to come about, and when will you have to take action to meet CWC requirements? To answer this question, let's first take a look at the U.S. CWC implementation process. **[II-14A]** The major steps of the process are shown on this slide, and all of them are underway. Let me update you on the current status of the implementation process, focusing on schedule and timing. The CWC was submitted to Congress for its advice and consent to ratification on November 23, 1993. Nine hearings were held in 1994, however, time ran out in the 1994 legislative session before the Senate could schedule its final debate on the CWC. Consequently, the CWC is again on the Senate Agenda for its advise and consent to ratification. The Clinton Administration seeks the earliest possible entry into force. Although the hearing schedule is not yet determined, Senate consideration of the CWC is expected soon after the April recess.

Draft implementing legislation was submitted to both the House and Senate in May 1994. It is being updated and will be [was] resubmitted very soon [on -----]. An Executive Order specifying the organization and functions of the National Authority has been drafted, and affected Departments are drafting the necessary procedures and preparing instructions for, among other things, submission and processing of CWC declarations and reports. Dr. Susan Berger, from the Department of Commerce, will fill you in on the details of their CWC-related efforts following this presentation. Assuming CWC entry into force in February 1996, the first U.S. data submission to the OPCW would be due in March 1996. That would necessitate getting industry data submissions as early as December 1995. The uncertainty in the due date is caused by not knowing when the 65th Signatory Country will ratify the CWC, which will start a 180 day clock leading to automatic entry into force (EIF). We have already started gathering some of the data needed for the National Declaration, and are taking action to identify the population of CWC-affected U.S. industry. This seminar represents part of the ongoing efforts to prepare for CWC implementation.

At the center of U.S. CWC implementation efforts will be a governmental entity, mandated by the treaty, called the National Authority. Let me show you what it will look like and describe what it will do. **[II-14B]** Rather than create yet another bureaucracy, the Executive Branch decided to let those agencies and departments already engaged in CWC activities assume the duties and responsibilities of the National Authority. Consequently, the policy arm of the National Authority will be an interagency working group, one that already exists, to provide policy direction on CWC-related issues. The day-to-day administrative functions of the National Authority will be performed by the Office of National Authority (ONA) now organizing within the Arms Control and Disarmament Agency. The Departments of Defense and Commerce will provide the connection to military and commercial CWC-affected entities, respectively. Any other CWC-affected entities not under the purview of Commerce or Defense can submit CWC declarations directly to the ONA. **[II-15A]**

The National Authority will have a number of key responsibilities and functions as shown on this slide. The National Authority will be the U.S. interface with the OPCW and other States Parties. All notifications of inspections and other requirements will be transmitted from the international organization to the National Authority. In turn, the National Authority will have a system for notifying the facilities to be inspected. Procedures and channels for notification from the National Authority to companies and inspection sites are being developed.

The National Authority will also be the U.S. organization responsible for declarations and reporting. It will compile U.S. declaration inputs and submit them to the OPCW in accordance with treaty-prescribed formats and due dates.

The National Authority can be expected to negotiate, with industry assistance, facility agreements between the U.S. and the OPCW at specific sites. U.S. industry, the Department of Commerce, and the National Authority will work together on generating facility agreements. The Office of National Authority will submit Facility Agreements to the OPCW and convey any feedback through Commerce to U.S. industry.

The National Authority will be involved in coordination of inspections after the announcement of an inspection and the designation of the inspection site(s). This task could involve details such as coordinating travel and logistics support arrangements for the inspection team, escorting them to the inspection site, advising the site with respect

to its rights and obligations prior to and/or during the inspection, and escorting the inspectors back to the U.S. Point of Entry for departure. After an inspection, the draft inspection report will be transmitted from the OPCW to the National Authority and on to the inspected plant site. The National Authority would advise the inspected site what, if any, further action might be required.

One of the most important National Authority roles will be communicating with the OPCW. In accomplishing its reporting role, the National Authority will collect, review, and compile U.S. inputs, both military and industrial. It will be responsible for clarifying information and answering questions that arise from communications and information exchanges with the OPCW. These answers and clarifications will either come directly from the declaration database or from further inquiries of entities within the U.S., including the U.S. chemical industry and individual companies. Specific responsibilities, reporting channels, and related coordination mechanisms are being formulated and will be fully developed in conjunction with the ratification process.

As the U.S. proceeds with CWC implementation it is absolutely essential that we balance treaty implementation requirements with the imperative to protect non-CW related sensitive information. There is specific language in the treaty and in the CWC implementing legislation that provides for protection of national security information and industry confidential business information (CBI). Likewise, the treaty organization will have stringent requirements to protect CBI it obtains as a result of declarations, reports, and inspections. **[II-15B]**

The U.S. Government's role in balancing treaty implementation requirements with the imperative to protect non-CW-related national interests applies to CWC-affected military and commercial sites. On the military side, such as at CW storage sites, former CW production facilities, and chemical destruction facilities, the U.S. Government owns these sites and is fully empowered to take necessary treaty compliance actions. Protection concerns center around safeguarding non-CW-related national security information. With respect to the U.S. commercial sites, balancing compliance and protection presents more of a challenge because of the many different sites and facilities affected.

As we strive to balance implementation measures with protection of U.S. national interests, we must first insure that the CWC declarations and reports are accurate. This is, in part, an industry responsibility exercised through careful reporting to the Department of Commerce on behalf of the National Authority. Upon acceptance of the industry data, the responsibility shifts to the Office of National Authority, acting for the U.S. Government, to insure that what is reported to the international organization is accurate and complete.

Another aspect of protection of U.S. interests deals with the protection of sensitive security and business information during all phases of treaty-related activity. It is certainly in the U.S. national interest to protect both security and economic information. In this latter case, it is incumbent upon the government to protect confidential business information, given that the government is requiring industry to comply with the treaty.

The inspection mechanisms contained in the treaty's Verification Annex include procedures designed to minimize the intrusiveness of inspection activities. Nevertheless, routine inspections of declared commercial facilities, coupled with the possibility of challenge inspections, increase the need for the U.S. Government to insure that business

interests are protected by minimizing the potential for compromise of confidential business information, trade secrets or other proprietary data. **[II-16A]**

At this point, the U.S. government has not finalized what types of support will be provided to industry in implementing and complying with the treaty, but there are a number of potential options. Clearly, the Federal Government must provide guidance to industry on the preparation of declarations and annual reports. This guidance is necessary to ensure that the National Authority has the necessary inputs in a form that can be readily compiled for reporting to the OPCW. Declaration forms and instructions are nearly finalized and will be distributed on or about the time that the 65th ratification is deposited. In the meantime, we continue to develop and refine the list of affected industry, and will continue the CWC industry outreach and public information program.

The Federal government must also provide guidance on inspection notification, inspection preparation, and related measures. Additionally, guidance on industry rights to minimize intrusiveness and safeguard CBI will likely be provided to help protect U.S. business interests while complying fully with the spirit and letter of the treaty. **[II-16B]**

Provision of U.S. Government on-site escorts for the inspection team is under consideration. Escort procedures taken from existing treaties may be modified for use with CWC inspections. I am told that the prevailing conventional wisdom on this issue is that industry seeks to minimize the number of USG escorts on-site, but recognizes the need to have a few government officials who are knowledgeable about the treaty on hand during inspections to protect the site's and U.S. National interests.

Other areas of support may include assisting facilities to prepare for inspections by providing information on specific inspection procedures. The Federal government can be expected to provide guidelines and a model for developing facility agreements. **[SLIDE OFF]**

Finally, the Federal government is considering providing a range of support to enable defense contractors and other sensitive private-sector facilities deal with challenge inspections. These measures include on-site assistance to coach the facility about hosting inspectors, meeting inspection rights and obligations, exercising managed access, addressing security and safety concerns, and other actions occurring before, during, and after an inspection. In the event of a challenge inspection of a U.S. commercial facility, the specific USG assistance provided would be tailored to the inspected site's needs on a case-by-case basis.

I would like to emphasize two points. The U.S. Government's role in implementing the CWC is well understood in general terms, based on the treaty requirements pertaining to declarations, reports, and inspections, the need for a National Authority, and implementing legislation. However, the specific procedures affecting how the USG will fulfill its role, although fairly well developed, have not yet been finalized.

This leads to the second point. The implementation process is at a point in its development where additional industry input can still influence the final outcome. Industry assistance in negotiating the CWC was invaluable, and we continue to encourage your input of ideas, concerns, and comments on treaty implementation and compliance, including the possible types of treaty-related assistance you would most like to have

available. We want to make sure that we get CWC implementation right the first time. This seminar offers one means of providing us with your ideas.

In summary, the seminar's purpose is to inform industry of the up-coming implementation of the Chemical Weapons Convention and to increase industry's involvement in the process. The Chemical Weapons Convention has numerous implications for U.S. industry. As the seminar proceeds, these implications will become more apparent and you should assess the degree to which your company may be affected. If anything is the least bit unclear, please ask for a clarification. That's why we are here. We very much appreciate your continued assistance in achieving the full implementation of the Chemical Weapons Convention, which if successful, **[II-17]** will serve to eliminate chemical weapons as a method of warfare. Your assistance in this effort is important to us, and we very much want to continue to hear from and work with you. **[SLIDE OFF]**

This concludes my portion of the presentation. Are there any questions?

I will be followed by Dr. Susan Berger, who will discuss the role and responsibilities of the Department of Commerce in CWC implementation. Thanks again for your attention.

I.3 THE ROLE OF THE DEPARTMENT OF COMMERCE IN IMPLEMENTING THE CHEMICAL WEAPONS CONVENTION

Introduction **[II-19A]**

The Chemical Weapons Convention (CWC), hereafter known as the "CWC" or "the treaty," will have an impact on private industry that is unprecedented for an arms control agreement. In many instances, the CWC will require commercial facilities to submit declarations on their production, processing, consumption, import and export of specific chemicals. In addition, the CWC will subject some of these facilities to potentially intrusive inspection by international inspection teams.

While several U.S. government agencies will be involved in CWC implementation and compliance, it is anticipated that the Department of Commerce will be responsible specifically for ensuring CWC implementation and compliance within U.S. industry.

Within the Department of Commerce, this responsibility belongs to the Bureau of Export Administration, also known as "BXA."

In order to understand the role of Commerce in implementing the CWC, we will first discuss BXA's organizational structure. **II-19B]**

BXA's Organizational Structure

The organizational chart shown on this slide depicts part of the new structure of BXA. The Bureau has recently reorganized with a major objective being to respond more effectively to Commerce's new responsibilities for implementing the CWC.

One of the main features of the BXA reorganization is the creation of a new office called the "Office of Chemical and Biological Controls and Treaty Compliance." This office is headed by Mr. Steve Goldman.

Within this office, the Treaty Compliance Division has the responsibility for ensuring that U.S. industry properly complies with the requirements of the CWC. The director of the Treaty Compliance Division is Mr. Charles Guernieri.

Currently, the Treaty Compliance Division has a staff of 8 professionals, including a Chemical Engineer with 30 years combined experience in industry and in the Chemical Corps as a U.S. Army Reserve Officer. Our staff also includes a PhD chemist who served as a U.S. State Department Technical Expert to the CWC negotiations, and who has over 4 years of experience in addressing CWC technical and policy issues. BXA's Treaty Compliance Division will be U.S. private industry's point-of-contact for inquiries regarding the CWC. Our telephone number is shown on the slide and is in your seminar supplemental materials. **[II-20A]**

The Role of Commerce in Implementing the CWC

The Department of Commerce will likely have responsibility for the following CWC implementation activities. One, Commerce, in conjunction with other U.S. government agencies, has provided outreach programs like this one and held meetings to educate trade associations and individual companies on how the CWC will affect private industry.

Two, Commerce will continue to meet with trade associations and individual companies to ensure that industry's views are considered in the development of CWC implementing legislation in the U.S. Third, Commerce is working with other U.S. government agencies to draft regulations for industry. Fourth, Commerce will issue declaration packages to U.S. industry, and compile industry declaration submissions. As Rick D'Andrea mentioned, the first draft of these declaration forms is essentially complete and tested by nine companies within a few weeks. We are currently reviewing industry comments. Fifth, Commerce is coordinating with other U.S. Government agencies to develop a program to provide inspection-preparation assistance to any facility that is selected to receive a CWC inspection. In addition, Commerce will coordinate with other agencies to ensure that a U.S. government representative is present during CWC inspections. This representative will assist the inspected facility in exercising its rights and fulfilling its obligations under the treaty. Assistance in preparing facility agreements will also be available. Finally Commerce will continue to represent U.S. industry interests at interagency and international discussions and serve as industry's advocate. **[II-20B]**

Status of Current BXA Implementation Activities

BXA is currently involved in several activities aimed at ensuring smooth implementation of the CWC by U.S. industry. For example, BXA is conducting, with the Arms Control and Disarmament Agency, industry outreach efforts, such as this one. These efforts attempt to inform commercial facilities about how the CWC will affect them. We have also integrated CWC information into our existing program of seminars on export licensing. In addition, BXA is developing regulations to specify industry obligations associated with CWC implementation. Commerce published a notice in the Federal Register on December 23, 1994 requesting industry comments regarding future regulations associated with implementation of the CWC. The responses from industry have provided useful suggestions that are assisting us in the drafting process. Additionally, we are working with other U.S. government agencies to develop CWC declaration packages. These packages will include declaration forms and filing instructions. **[II-21]**

We are also developing a secure computer information system for receiving, compiling, validating, and transmitting declarations submitted by industry. BXA is also working with other U.S. government agencies to establish a rigorous security system to safeguard sensitive confidential business information contained in industry declaration submissions. Finally we are working with various trade associations (such as the Chemical Manufacturers Association, the Synthetic Organic Chemical Manufacturers Association, and the Pharmaceutical Research and Manufacturing Association) and individual companies to ensure that industry views are represented in U.S. interagency and international discussions.

The Department of Commerce recognizes the importance of chemical and pharmaceutical industries to the U.S. economy. In cooperation with industry, we hope to achieve successful implementation of the CWC, and at the same time, to place no inhibitions on U.S. economic competitiveness.

The Department of Commerce looks forward to working with industry to achieve smooth implementation of the CWC, while safeguarding industry confidential business information. We believe that this goal will benefit us all.

Any questions?

I will now delve into the details of CWC declarations.

I.4 POLICIES FOR DECLARATIONS

Introduction **[II-23A]**

[II-23B] In this presentation, I will discuss the following aspects of CWC Declarations. (1) the general requirements for declarations; (2) the overlap of CWC regulations with other USG regulations; (3) the chemicals, facilities and activities covered by the CWC; (4) the reporting thresholds; (5) CWC regulations issued by Commerce; and, (6) the timelines for submission of CWC declarations. **[SLIDE OFF]**

The U.S. Government is confident that no U.S. firms are in the business of making chemical weapons. Furthermore, the CWC does not seek to prohibit any legitimate commercial activity. If you will turn to page 6 of your copy of CWC (under Article II, paragraph 9), you will see that the definition of "Purposes Not Prohibited Under this Convention" explicitly permits activities involving all of the chemicals that will be discussed, provided these activities are carried out for "industrial, agricultural, research, medical, pharmaceutical, or other peaceful purposes" and in quantities appropriate for those purposes.

General Requirements for CWC Declarations

The aim of the CWC's verification regime is to ensure that toxic chemicals and their precursors are only developed, produced, otherwise acquired, retained, transferred, or used for purposes not prohibited under the Convention. The declaration requirements are one element of this verification regime. Once the United States becomes a State Party to the CWC it will be obligated to comply with all declaration requirements prescribed by the CWC. These declaration requirements call for each State Party to make initial and annual declarations regarding chemicals specified by the Treaty to the Organization for the Prohibition of Chemical Weapons (OPCW) in The Hague. The initial declarations, due 30 days after entry into force, will be the first reports submitted by the State Parties to the OPCW. These declarations will include, among other information, the names and locations of all facilities relevant to the CWC.

Thereafter, annual declarations will be required to report to the OPCW on past and anticipated activities concerning relevant chemicals and facilities. This is a States Party obligation. In order for the U.S. to fulfill its reporting obligations, it must collect, review, validate, and aggregate data from the industrial sector, the military, and other governmental sources. Consequently, through the passage of implementing legislation and the issuance of regulations, U.S. industry will be required to submit declarations to the Department of Commerce, for ultimate compilation into the U.S. national declaration.

Overlap of Other USG Regulations **[II-24]**

We are well aware that the chemical industry is already heavily regulated and that the industry already provides a great deal of data to the U.S. Government. However, the declarations required by the CWC will differ substantially from those required by the Environmental Protection Agency, the International Trade Commission, and other agencies in terms of (1) the time period covered by the declarations: (2) the definitions of terms: (3) the units of measure used to quantify the chemicals; (4) the specifics of aggregation; and (5) the descriptive information required, as well as other factors.

The CWC will affect a much broader range of companies. Not only will it affect companies that produce chemicals, but in some cases it will also impact those industries that process, consume, import, or export chemicals covered by the treat. The major differences between CWC requirements and existing regulatory regimes can be summed up in four points. One, the CWC's coverage of chemicals and their associated facilities is wider in scope than any other existing regulations. Two, the treaty requires reporting from companies that currently have no reporting requirements. Three, CWC declarations will include information that is not required by existing regulations. Finally, the information will be required earlier in the year than is the case under existing regulations.

In developing the regulations for U.S. industry, the Department of Commerce will make every effort to eliminate overlap with other agency requirements and ensure that the U.S. regulations do not go beyond the requirements of the CWC. In addition, Commerce intends to make the regulations as user-friendly as possible and to elicit industry's input early in the development process. **[SLIDE OFF]**

Chemicals and Facilities Covered by the Convention

The primary question on everyone's mind is "Will my company be required to submit declarations?" In answering this question, we must first discuss the at types of chemicals and facilities that are covered by the CWC.

The CWC requires companies to report on industrial activities involving above-threshold quantities of certain chemicals. These chemicals are grouped into three separate lists, which are referred to as "Schedules 1,2 and 3." The Schedules are provided in the CWC's "Annex on Chemicals" (on pages 48 through 52 of the CWC). The Schedules are also included in the supplemental materials on pages 2-4. While we recognize that U.S. industry is not in the business of making chemical weapons, the CWC's negotiators recognized that renegade nations may use certain industrial chemicals to manufacture chemical weapons. Consequently, the Schedules identify specific toxic chemicals that may have commercial uses, but have been used in the past as chemical weapons or as precursors to chemical weapons.

We will not discuss each Schedule individually, in the order of its significance to U.S. industry's reporting requirements. In determining if your company has a CWC declaration requirement, it is first necessary to establish if your company's production or other activities involve any of the chemicals listed in Schedules 1, 2, or 3. Our initial estimates indicate that up to 300 facilities have activities involving chemicals on the Schedules.

While the vast majority of industry probably does not conduct activities involving chemicals on the Schedules, companies may be required to submit declarations due to their production of another category of chemicals, generically referred to as Discrete Organic Chemicals or DOCs. It is expected that as many as 2500 companies that produce DOCs may be required to submit declarations. The next slide presents some of the typical examples of DOCs. **[II-25]**

As Rick mentioned earlier, one of the most important definitions in the CWC to U.S. industry is that for the DOCs. This is a very broad group of chemicals. **[II-26A]**

Let's review the precise definition of "Discrete Organic Chemical." It is "any chemical belonging to the class of chemical compounds consisting of all compounds of carbon except for its oxides, sulfides and metal carbonates." The practical application of this definition is being worked out currently in the PrepCom. If you have specific questions concerning the declaration of DOCs, write them down for our panel to address during the panel discussion.

The inclusion of the category of DOCs in the CWC is intended to capture facilities having the potential for the production of chemical warfare agents, even though they do not actually produce such chemicals.

The great majority of companies do not produce or conduct other activities with Scheduled chemicals, and thus will have to report only in their production of DOCs, if the aggregate production quantity is above the threshold of 200 metric tons. The actual report for DOC production will not require disclosure of the specific chemicals produced. Rather, the company will report only its aggregate production ranges for DOCs. Given the broad definition of DOCs, companies need to pay particular attention to this category. **[II-26B]**

The DOC category includes a subgroup of chemicals that contain the elements phosphorus, sulfur or fluorine. The CWC refers to this subcategory as "PSF chemicals." PSF-chemicals have lower reporting thresholds than other DOC's: 30 metric tons rather than 200 metric tons. I will discuss the reporting thresholds for DOCs in more detail shortly. **II-27A]**

After DOCs, the next largest number of industry reports will be based on activities with Schedule 3 chemicals. It is estimated that 100 to 200 facilities will be required to report Schedule 3 activity. All of the chemicals listed in Schedule 3 have relatively large-volume commercial uses and are referred to as "dual-use chemicals." In addition to their industrial uses, however, several of the Schedule 3 chemicals (e.g., phosgene and hydrogen cyanide) have been used in the past as chemical weapons. Other chemicals listed in Schedule 3 are important precursor chemicals for chemicals listed in Schedules 1 and 2. **[II-27B]**

Schedule 2 chemicals have only a few commercial uses and are often referred to as small volume "dual use" chemicals. It is estimated that about 50 to 100 facilities will be required to report Schedule 2 activities. Schedule 2 is divided into part A and part B. Several particularly toxic chemicals that might be used in warfare are listed in part A. They are: (1) the Amiton family of pesticides; (2) Perfluoroisobutylene (or PFIB), a by-product from the production of fluoropolymers; and (3) BZ, an military incapacitating CW agent.

The rest of the chemicals included in Schedule 2 are listed in part B. These chemicals are precursors that may be used to synthesize the chemical warfare agents listed in Schedule 1 or in Schedule 2 part A. **[II-28A]**

The Schedule 1 chemicals are either the most toxic chemical warfare agents or their immediate precursors. These chemicals have little or no civilian use. However, a few pharmaceutical companies are involved with legitimate use of Schedule 1 chemicals, such as nitrogen mustard and ricin for cancer chemotherapy and other medical or research applications. Facilities must report on Schedule 1 activities involving more than

100 grams aggregate of Schedule 1 chemicals. It is estimated that about 10 commercial facilities produce, use or conduct research using Schedule 1 chemicals in amounts above the 100-gram threshold. Any producers or users of Schedule 1 chemicals should stay in close contact with the Department of Commerce.

It is important to note that some of the entries in Schedule 1 are families of chemicals. These families could theoretically involve thousands of compounds. However, not all of these compounds have been synthesized.

Activities that Require Reporting **[II-28B]**

Depending on the schedule or group of chemicals present at your facility, various activities must be reported. These activities are production, consumption, processing, exporting and importing. The Convention defines the first three activities in this way:

"Production" of a chemical means its formation through a chemical reaction. Production includes any chemical that is known to be created anywhere in the facility where the chemical can be isolated by normal methods. This definition includes waste treatment products. The word "reaction" in the definition includes organic chemical synthesis.

"Processing" of a chemical means physical processes, such as formulation, extraction or purification, in which a chemical is not converted into another chemical. Processing includes handling of a chemical during manufacture, but not packaging or shipping.

"Consumption" means the conversion of the one chemical into another via a chemical reaction.

The activity definitions are important for your companies to understand, not only because of their role in the Convention, but because they are different from common usage in industry and in the regulations you're familiar with. These activity definitions are also given in the supplements. If you have any questions concerning these definitions, please submit them to the panel.

In addition to requirements to report on the producing, processing or consuming of the covered chemicals, you also may be required to report information on the transfers of certain chemicals, including exports and imports.

For declaration purposes, the chemical activities conducted at your company must be reported on the basis of their occurrence in a plant site or a plant. **[II-29A]**

CWC declaration requirements distinguish between the terms "plant site" and "plant."

A plant site means the local integration of one or more plants. The plant site will normally have intermediary administrative levels under one common infrastructure, including administration, repair/maintenance, medical center, utilities, central analytical laboratory, R & D laboratories, central effluent and waste treatment area, and warehouse storage.

A "Plant" means a relatively self-contained area, structure or building containing one or more units with associated infrastructure such as a small administrative section, storage/handling area for feedstock, a finished production area, and record-keeping of product movement of declared chemicals/related feedstocks. It may turn out that a company only has to declare a small plant within the overall plant site. In this case, only that plant would be subject to routine inspection. **[II-29B]**

Now that we have defined each activitY, let's discuss which types of activities must be reported for each category of chemicals. Facilities that only produce Discrete Organic Chemicals are required to submit declarations only on the basis of DOC production. These facilities are not required to report on other activities, such as processing, consumption, import or export.

Schedule 3 facilities must submit declarations on the basis of production, as well as the import and export of Schedule 3 chemicals.

Schedule 2 facilities are required to submit declarations if they produce, process, or consume, import or export specified quantities of any Schedule 2 chemicals.

Schedule 1 facilities submit declarations on the basis of production, processing, consumption, acquisition, imports and exports.

Reporting Thresholds **[II-30]**

As we alluded to earlier, the CWC declaration requirements are keyed to threshold quantities of various categories of chemicals. Each chemical category has a different quantitative reporting threshold. The quantitative reporting thresholds may apply to a plant or a plant site, and they may apply to a single chemical or to the aggregate of several chemicals.

For the category of Discrete Organic Chemicals, facilities that produce more than 200 metric tons per year aggregate of unscheduled DOCs must submit a declaration. This quantitative threshold is an aggregate of all chemicals in the DOC group.

For the PSF chemical group, facilities that produce more than 30 metric tons per year have a declaration requirement. This threshold applies to each chemical produced by at each plant.

Facilities that produce more than 30 metric tons per year of any single Schedule 3 chemical at a plant site have a declaration requirement.

Schedule 2A contains 1 chemical family and 2 individual chemicals. For Amiton and PFIB, a facility must submit a declaration if it produces, processes or consumes more than 100 kg of any one of these chemicals in any one plant. For BZ, a facility must submit a declaration if it produces, processes or consumes more than 1 kg of this chemical in any one plant.

Schedule 2B facilities have an annual declaration requirement if they produce, process or consume more than 1 metric ton (1000 Kg) of any Schedule 2B chemical in any one plant.

Schedule 1 reporting requirements are unique because there is a 1 metric ton ceiling on the aggregate amount of Schedule 1 chemicals a State Party can possess at any time. All facilities that produce more than an aggregate of 100 grams per year of Schedule 1 chemicals have a declaration requirement and will have to be in close touch with the Department of Commerce. After the break this morning, Mr. Gordon Burck will cover some practical examples of CWC declarations that should make the reporting process much clearer for you. **[SLIDE OFF]**

Commerce Regulations and Procedures

The Department of Commerce has begun drafting regulations that will set out the requirements and procedures for submitting declarations. As you have heard earlier, the Department's Office of Chemical and Biological Controls and Treaty Compliance will be responsible for the collection of data declarations and for ensuring that complete and accurate information is given to the Office of National Authority for transmission to the OPCW.

As some of you may be aware, BXA in the Department of Commerce is currently responsible for writing and administering the Export Administration Regulations. We are planning to use an adjacent Part of the Code of Federal Regulations to incorporate the CWC regulations. We are actively working with various trade and industry groups to obtain continued input as we draft these regulations.

The regulations will relate to all aspects of industry compliance with the CWC, including: (1) reporting requirements; (2) export controls: (3) inspection procedures; and, (4) facility agreements. We plan to have the regulations published well in advance of entry into force of the CWC.

With respect to CWC declarations, the regulations will contain specific instructions on what facilities will need to report and how the declarations are to be submitted to Commerce.

Information Management System

The Department of Commerce has been working closely with other U.S. Government agencies to develop an information management system, referred to as IMS, that: (1) provides several convenient means for reporting; (2) is compatible with systems being developed by other agencies; and (3) will permit automated processing and verification of a large number of declarations.

In May of 1994, we began a requirements analysis that resulted in a paper detailing our hardware, software and rough procedural requirements for a Commerce IMS. The requirements allowed for three methods for submitting declarations. **[II-31]**

The first method for declaration submission is by interactive disk. ACDA and Commerce are working together on a software program which can be distributed on floppy disk and would allow companies to submit declarations electronically.

The second method called for in the requirements was direct electronic submission through a bulletin board system. We developed a preliminary version of such a submission procedure in August of 1994. We are hopeful that a production version of this

system will be developed in the near future to allow industry to submit declarations directly to Commerce via computer modem and dial-up telephone lines.

The third method of submission is through traditional paper forms. These forms must be typed, they can be scanned and entered electronically using optical character recognition software.

Since December 1994, we have been working to develop the necessary software for our IMS. Our goal is to develop a complete IMS for processing and verifying industrial declarations. The software being developed will have the capability to flag data items which are inconsistent, unreasonable, or improper so that we can make specific inquiries of the company submitting the declarations in order to resolve the anomalies.

We are hopeful that our efforts will result in a computerized reporting system that makes the reporting process as simple and easy as possible for industry. **[SLIDE OFF]**

Imports and Exports

Some of you may be familiar with the export administration regulations of the Department of Commerce. Those of you who export may already be required to obtain an export license before shipping. If you import or export certain Scheduled chemicals you may need to report information relevant to those transactions under the CWC.

For Schedule 1, 2, and 3 chemicals, facilities will be required to report information pertaining to exports and imports of these chemicals. Although the PrepCom has not yet established reporting thresholds for imports and exports of Scheduled chemicals, we envision that the reporting thresholds for such transfers will be identical to those for production.

While the CWC is primarily an arms control agreement, it does prescribe trade restrictions on the transfer of the Scheduled chemicals listed in the Annex on Chemicals. Appropriate use of export controls will be an important element in ensuring compliance with these treaty obligations. While the CWC requires that parties be vigilant over their exports, it does not establish a requirement for an export licensing regime. Article VI, "Activities Not Prohibited Under the Convention," provides the basic obligation to limit transfers of toxic chemicals and precursors. Paragraph 2 of this Article states that:

> Each State Party shall adopt the necessary measures to ensure that toxic chemicals and their precursors are only developed, produced, otherwise acquired, retained, transferred, or used within its territory or in any other place under its jurisdiction or control for purposes not prohibited under this Convention.

Schedule 1 chemicals have more extensive reporting requirements for transfers. If any company at this seminar is involved with Schedule 1 chemicals, please see me during the break.

Timing of Declarations

My next topic is the time frame for these declarations. All of the data reporting is on a calendar year basis. **[II-32A]**

The initial declaration should contain company information and the activity data previously discussed. This information must be received by the OPCW within 30 days after entry-into-force. The domestic deadline has not been set, but it will likely be 60-90 days in advance of the international deadline.

In the year following Entry into Force, declarations for anticipated Schedule 1 activity will be due to the OPCW 90 days before year end.

Declarations of anticipated activities for the coming year involving Schedule 2 and 3 chemicals are to be reported to the OPCW at least 60 days before the year starts, beginning the first October after the treaty enters into force.

The subsequent annual declarations for the previous calendar year must be submitted to the OPCW within the first 90 days following the end of that year. All annual deadlines for your reporting to the National Authority will continue to be somewhat earlier (expected to be about 60 days) than the treaty-specified deadlines, given that the National Authority will need to compile and process all the submissions it receives.

Conclusion

The Department of Commerce stands ready to assume the new role of administering this treaty for U.S. industry. We recognize the need to proceed swiftly well before entry-into-force. Our Office of Chemical and Biological Controls and Treaty Compliance is working hard on the requirements for implementing the treaty, including IMS, industry outreach, regulations, and declaration forms. **[II-32B]**

BXA promises to keep industry informed and involved in the development of CWC regulations. We are working closely with the Arms Control and Disarmament Agency, we are in contact with the Chemical Manufacturers Association and a number of other major industry associations and private companies to allow for an exchange of ideas on various aspects of treaty implementation.

We welcome your views and urge you to stay closely in tune to developments regarding the CWC. Here is our telephone number again to obtain more information. Contact the Bureau of Export Administration at (202) 482-4811. Are there any questions?

Let's take a fifteen minute break. We will resume at _____. After the break, Gordon Burck will discuss declarations in greater detail. Thank you for your attention.

I.5 EXAMPLES OF DATA DECLARATIONS AND REPORTING

[II-33A] For those of you new to the CWC, I can appreciate that your head is now swimming with schedules, thresholds, discrete organic chemicals, plant sites, plants, and all of the other information that Mr. Ziemba presented before the break. For you experienced hands, who have the advantage of a previous CWC seminar [about x of you] or who have otherwise delved into the treaty, you still might be a little intimidated by the complexity of CWC terms, definitions, and declaration requirements. This part of the seminar is intended to give you some more information on those requirements, show you what some of the draft forms look like, and see what you'd have to do in some practical examples.

The Government's approach to designing the CWC declaration forms is to make them as simple as possible. Filling out these forms should be easy for most of you. However, the declaration thresholds, the CWC's unique useage of terms, and the newness of the declaration requirements can be confusing. When the time comes for your company to prepare your declaration, you'll receive a package of forms and a complete set of instructions. Additionally, the Department of Commerce is planning to provide experts available for you to call for assistance with your CWC declaration related questions. But don't wait until then. Please feel free to ask questions at any time during my presentation on anything I say or that Mr. Ziemba said, or write the questions down on the comment forms for the panel this afternoon. **[II-33B]**

The first form in each and every CWC industry submission is the Certification Form. An example of a draft Certification Form, which you see on the screen and in your books of slides, is also on the next page in the supplemental materials, page 10. The response fields in this form are pretty much self-explanatory; however, let me point out some aspects that might not be readily apparent.

The person whom you list at the top as the submitter will be considered by the National Authority as the Point of Contact for any questions about the submission, as well as for future mailings. This suggests that the contact person should be familiar with the declaration's contents and the data used to prepare the declaration, as opposed to a corporate officer who may be responsible for the declaration.

This also raises the question of how centralized your submission should be. Some corporations have multiple sites in different states within each of several divisions or component companies. Should they declare each site individually or bundle their declarations by division or all together? The CWC only requires that a separate declaration be made for each plant site. So, organize your declarations in whatever way is the easiest for your company or corporate entity. However, no declarable plant site should be omitted, nor should any plant site be declared twice with the same information.

The submission date will help to distinguish possible multiple submissions, subsequently changed submissions, and other submissions using the same forms, in the case of the Scheduled Chemicals. The legal deadline for submissions, however, which Mr. Ziemba gave you, will be stated in the regulations and will be based on receipt of the submissions in Washington.

Next comes the POC's company name and the rest of its mailing address. The term "postal code" will read ZIP code when you get the form. Note that in the next block

there is space for an E-mail address in anticipation of eventual computerized connectivity for the CWC declaration process.

Block C.6 will contain the certification that the attached pages of the declaration have been reviewed and are accurate. As I mentioned, the certifying official is not necessarily the same person listed as the point of contact.

The next block identifies the type of declaration, whether it's an initial declaration, an annual report, or a correction to a previous declaration or report. For the Scheduled Chemicals, there also are selections here for a declaration of anticipated activities, for a change to such a declaration, and for a declaration made because of activities other than in the year being declared.

Then, block C.8 is a table of contents for the submission, here basically to note whether Form A with the list of attachments or Form B with optional comments are included. For the various Schedules, there is a list of 4 up to 9 possible data forms in this block.

At the bottom of the form is a box to check to receive the next year's forms even if you aren't submitting any this year. You would want to do this if, for example, you are only beginning to produce Discrete Organic Chemicals during the year in which you are submitting this form. And, finally, there is a box for telling the government that you have nothing to declare. You'd want to check that box if, for instance, you had made previous CWC declarations and have ceased production of the declarable chemical(s) long enough ago that you no longer have a reporting requirement. In that case, the Department of Commerce would then know not to expect a declaration.

Finally, note at the very top the admonition to read the instructions before completing the forms. Preparers who start filling out the forms without first becoming familiar with the details in the instructions may have difficulty or may make unwitting errors. The control number in the upper right will be preprinted on each package of forms to help Commerce track all of the submissions it will receive. **[II-30A]**

Then, at this point, I want to mention a few things applicable to CWC declarations in general before we get into chemical details.

First, all reporting is on a calendar year basis.

Second, all reporting is in metric weights -- kilograms and metric tonnes. There's no provision for volume measurements.

Third, the standard method of referring to each declared facility will be by a code number assigned by the Technical Secretariat. These numbers will be assigned after the first declaration of a facility, for use on subsequent reports about the same facility.

Fourth, the CWC requires a separate declaration for chemicals within each Schedule or the category of Discrete Organic Chemicals, at each plant site. So-called "mixed plant sites" contain one or more plants with declarable activities involving chemicals on more than one of the Schedules or in the category of Discrete Organic Chemicals.

As a final general point, the shortest declaration is 2 pages long in the paper version. For almost all of you, that minimum is the Certification Form and the Discrete Organic Chemical Form which we'll look at in a minute; this minimum is submitted once a year. The Scheduled Chemical reports are submitted twice a year for the annual and anticipated activity reports. And a few declarations may be much longer. Currently, there are a total of 31 pages of draft forms, 18 of which are data forms covering all of the declared information on chemicals. The Department of Commerce is planning to break these forms into packages specific to each Schedule or the Discrete Organic Chemicals and to send you only the forms applicable to your company after the initial declaration. **[II-34A]**

In making your declaration, there's no requirement to start with any particular form. Therefore, my choice today is to start by discussing Discrete Organic Chemicals, or D O Cs for short, because the overwhelming majority of declarers will be producers of DOCs and virtually every declarer produces them. [The preregistered companies in this audience include ...]

During the next several minutes I'll address: What Discrete Organic Chemicals are, what "production" means in the treaty, how the amount of production is calculated, and what else must be reported about DOCs.

For the chemical industry, the definition of Discrete Organic Chemicals is perhaps the most important concept introduced by the CWC. The precise definition is, again, "any chemical belonging to the class of chemical compounds consisting of all compounds of carbon except for its oxides, sulfides and metal carbonates, [and] identifiable by chemical name." In other words, some of the excepted chemicals are carbon monoxide and dioxide, carbon disulfide, and sodium, calcium and similar metallic carbonate salts. But please be aware that the basic definition also includes some carbon-containing chemicals that are not commonly thought of as organic, such as cyanide salts and metal carbides.

The treaty also has two major exclusions from reporting on DOCs. First, all of the chemicals on the three Schedules are excluded, whether or not they are reported.

Second, any plant site producing Discrete Organic Chemicals exclusively in the form of hydrocarbons or explosives is exempted from CWC reporting. This exclusion is not just for pure hydrocarbons, as has often been erroneously stated, including in the April 10th C&ENews. Rather, the exclusion applies if a plant site produces no DOCs other than hydrocarbons or explosives. For example, if the explosives nitroglycerine and TNT are the only chemicals produced at a plant site, there's no declaration. However, if, for example, some of the toluene used to produce the TNT is also oxidized to make another DOC such as benzoic acid, then the aggregate production of both the benzoic acid and the explosives must be declared.

I'll mention some other chemical exclusions that have been proposed to supplement the treaty in a minute.

But before that I want to reemphasize the breadth of this chemical category. The 200 metric tonne aggregate threshold will include many producers who do no other domestic reporting. And many companies, whose activities on first glance would appear to place them far outside the "Chemical Process Industries," may find themselves with a reporting responsibility.

For reporting purposes, the Discrete Organic Chemical category is just like another Schedule, except that there's no possible list of "all" the DOCs. The category simply includes every carbon-containing chemical resulting from a chemical reaction, with some specific exceptions and above a moderately low threshold. No specific chemical need be declared by name, but they must be counted individually in order to prepare a declaration. **[II-35A]**

Application of the Discrete Organic Chemical definition to real world situations has resulted in some practical exclusions from reporting, with several others presently under consideration in the PrepCom.

First, dimers, trimers and higher polymers will be excluded, including the altered or substituted polymer products of subsequent reactions, such as hydrogenation, vulcanization, crosslinking, and so forth.

Not excluded is production of any monomeric precursors to polymers, including reactions with additives. Also, byproducts of any polymerization or modification step constitute production of DOCs and are declarable.

Among the likely exclusions under PrepCom consideration are exclusion of metal carbides, which I mentioned a minute ago, such as silicon carbide, exclusion of ethanol produced by fermentation, and the exclusion of "complex mixtures" such as mixtures of long-chain fatty acids and alcohols from natural, but also synthetic, sources that are used to produce surface-active agents and other materials.

Please be aware, however, that these possible exclusions and others must be approved by the PrepCom. Further information will be provided to industry as it becomes available, so by all means stay tuned. **[II-35B]**

Discrete Organic Chemicals are only subject to declaration if they are produced, which the treaty defines as being formed by a chemical reaction.

One consideration that will minimize many instances of declarable production is the low concentration exclusions that will be set by the PrepCom. Mixtures involving concentrations of specific DOCs below the exclusion concentration will not need to be included in the aggregate for declaration. The PrepCom has not yet determined any of the actual low concentration limits. **[II-36A]**

Two unexpected types of production that are reportable are production of impurities and production of byproducts. A reportable impurity is a Scheduled or Discrete Organic Chemical that is produced coincidentally as a result of the manufacture of another chemical, but which is not separated and remains primarily in the mixture or product with that other chemical. Such chemicals are likely to be identified or grouped in product specs or on process design material balances. Impurities are of course only reportable if they exceed the appropriate low concentration guideline at some point in the process equipment.

A reportable byproduct is a Scheduled or Discrete Organic Chemical that is produced coincidentally during the manufacture of another chemical substance or mixture and then is separated from that other chemical substance or mixture. Examples include phenol and methylmercaptan from pulp mills and polymerization byproducts. **[II-36B]**

The Discrete Organic Chemical reporting threshold is aggregate annual production of 200 metric tonnes. The aggregate production is calculated within a plant site by summing all of the process streams, including waste treatment, which has not normally been considered as part of a facility's overall production activities. In most cases, your facility will be a single plant site. However, large facilities may naturally comprise several plant sites. Cases where a tenant or joint operation exists in a single plant site without normally sharing process information may call for a specific provision in the legal relationship providing for a common Point Of Contact.

The declaration of DOC production is in ranges, rather than the actual aggregate production amounts. This is one of the features built into the CWC declaration regime that help to protect confidential business information. The ranges are 200 up to 1,000 metric tonnes; 1,000 up to 10,000; and 10,000 tonnes or more. This reporting is in whole tonnes, and rounding rules will be given in the instructions. To determine your plant site's declaration, you would first calculate the production of each Discrete Organic Chemical for the previous calendar year, sum them as aggregate production, and select the applicable range. There's no requirement to identify the chemicals. It's really that simple.

Now let's look at two examples facing companies trying to decide whether to declare: **[II-37A]**

All of the examples I'll give are for Entry-into-Force in 1995. If it turns out to be 1996, then all of the dates will be one year later. What declaration, if any, is required if a facility produced these chemicals in 1994? Can someone give me a quick answer, without looking at the solution? **[II-37B]**

As you see, the answer is an Initial Declaration in the lowest range for DOCs. The point to notice is that this facility produced an explosive, but because that production is not exclusive and the total production of DOCs exceeds 200 tonnes, there's a declaration requirement. **[II-38A]**

What declaration, if any, is required if a facility produced these chemicals in 1994? **[II-38B]**

In this example, triethanolamine is a Schedule 3 Chemical produced in a quantity below the Schedule 3 threshold so it doesn't count at all. The remaining quantity of the other chemical, the single DOC, is below the declaration threshold; therefore, no declaration is required. **[II-39A]**

Discrete Organic Chemicals that contain atoms of phosphorus or sulfur or fluorine are of particular interest because most CW agents contain one or more of those elements. These chemicals are known collectively as PSF Chemicals. The separate PSF declaration threshold is 30 tonnes of a single PSF Chemical in a single plant. This adds another reporting range, of 30 up to 200 metric tonnes, to the set of ranges for DOC reporting, but this set of ranges is used only for reporting on the aggregate PSF Chemical production in a plant.

The declaration of a DOC plant site can be triggered solely by the production of PSF Chemicals. Furthermore, if a plant producing PSF Chemicals is located within a plant site also producing other DOCs, and the plant's production exceeds both declaration thresholds, then the production of each PSF plant and the overall production of DOCs

must be reported. And remember, that the production of each PSF plant is also included in the DOC plant site aggregate production.

Let's look at another example facing a company trying to decide whether to declare. **[II-39B]**

What declaration, if any, is required if a facility produced these chemicals in 1994? **[II-40A]**

In this example you would declare a plant producing 30 to 200 tonnes of PSF Chemicals, based on the production of at least 30 tonnes of the single PSF Chemical, presumably in a single plant. But the combined production of the two Discrete Organic Chemicals is below the 200 tonne threshold, so no quantitative declaration of DOCs is made for the overall plant site. **[II-40B]**

Now let's take a look at the draft declaration forms for Discrete Organic Chemicals. The next page, 11, of the supplements has a full sized copy of the form that's on the slide. In early drafts of this form, we've used the term "Non-Schedule 1, 2, or 3" rather than "Discrete Organic" to deemphasize the word "organic" and emphasize instead that this is the declaration for chemicals except those on the schedules.

This form is to be filled out if you have determined that your plant site meets the thresholds for reporting either on Discrete Organic Chemicals in general or on at least one plant that has been producing PSF Chemicals.

The same basic form will be used for the initial declaration and each subsequent annual report, but you'll be sent the next year's edition for the first annual report.

In the upper right-hand corner, you'll type in the name of the plant site the first time it's declared. For the initial declaration of this plant site, and for all of the facilities and plants you may declare for the Scheduled Chemicals, it will be very important to type the names exactly the same on each form. Any differences in the names may be mistaken as referring to different declared sites. And you should definitely not send in duplicate submissions unless you need to make a correction. Once you've received the standardized code number for this plant site, you will type it in this box and on every other submission referring to the same plant site.

The Yes/No boxes on the upper right are for you to indicate whether anything in this particular submission about this plant site is Confidential Business Information that requires more than normal protection by the OPCW; your designation will not affect your protection under U.S law.

The first two numbered questions on this form, and on the first page of every other group of forms for Scheduled Chemicals, request the names of the owner or owners and operator or operators of the facility. This is only to provide a complete picture and it is not meant to influence your choice of a submission strategy.

I'll mention here a point about ownership that's often asked. You are only required to report on activities in the United States or its territories, not those of your foreign owners, subsidiaries or affiliates. Of course, you might encourage your overseas facilities to make their reports expeditiously to their own host governments, and you should also

make sure that your shipments of chemicals to and from such companies are reported consistently. Finally, you'll report in the United States even if your facility here is foreign-owned.

Next, the street address is required. This is not necessarily a mailing address, such as that on the Certification Form; nor is it necessarily the address of any of the owners or operators. This is the address to which inspectors will come with their escorts to begin inspections. They'll also be assisted in finding your plant site by the geographic coordinates entered in the next box. For those of you who do not have these coordinates from local records such as deeds or have not determined them for submissions under the Toxic Chemical Release Inventory, there will be detailed instructions in the reporting materials that you'll receive.

The next question is the final one intended to fully identify your declared facility. If any additional information would help further clarify just what plant site you are declaring, such as a written description or a plot diagram, you are asked to indicate here that you are enclosing an attachment and to describe it on the separate Form A.

Question 5 is intended to allow each company to choose the most expeditious way for it to receive notifications of inspections. Regardless of whether each submission already contained a local Point of Contact or whether a company has chosen a centralized Point of Contact on the Certification Forms for declarations from multiple plant sites, each declared facility may designate a separate Point of Contact specifically to receive notifications of inspections. This is likely to be the person already responsible for contact in case of emergency, but the emphasis should be on a number that will always get a response. Particularly for the Discrete Organic plant sites, where routine inspections will not start immediately but could continue for many years, the longevity of the numbers are more important than the longevity of the named individual. As you will hear, the legislation may direct that both owners and operators be notified of inspections -- that would require a couple of more blocks like number 5.

Question 6 asks you to specify the main activities in the declared plant site involving any chemicals. Production activities are to be specified by using 4-digit Harmonized Tariff System codes (which are now used by the International Trade Commission to compile Synthetic Organic Chemicals). For non-production activities, you may also use any of the 6 generic responses shown or you can make another specification if necessary.

Question 7 asks for the number of plants in this declared plant site that are producing DOCs, including the plants that are producing PSF Chemicals.

Finally, if you are declaring this plant site because it produced at least 200 metric tonnes of DOCs, in aggregate, then you will check off one of the three ranges in Question 8. **[II-41A]**

If one of the plants you counted up for Question 7 was a PSF plant, such as the phosphate ester plant we saw in the example, then you'll also complete the continuation page of the DOC Form that is now on the screen and is also on the next page, 12, of the supplements.

First, you'll again type in the plant site name or enter the code number.

Then you'll complete as many of the Question 9 blocks as you have PSF plants. If you should have more than 6, you'll get an additional page and number them at the bottom, as 1 of 2 and 2 of 2. The first page would be numbered 1 through 6 down the left and the next page 7 through 12. This scheme for additional pages will be familiar for those of you who submit the TRI reports.

Having said that, few companies will need more than a couple of blocks, and each block is simple to fill out. First, give the name of the plant. That name will not be sent to the OPCW, but it will help the National Authority keep track of what PSF plants you're reporting from year to year.

But the main question is just to check one of the 4 ranges of production. **[II-41B]**

Once you understand all of the concepts for reporting on Discrete Organic Chemicals, there are some important points to make about the Scheduled Chemicals, as well, other than the specific chemicals and the relevant thresholds. I'll concentrate on the important points and the new concepts.

Schedule 3 is a list of 17 particular chemicals, with a requirement for initial declarations and annual reports on production during the previous calendar year at a plant site. However, Schedule 3 declarations require additional information beyond that required for DOCs.

First, the declaration threshold is 30 metric tonnes of a specific chemical for the plant site, and you'll declare specific amounts rather than ranges so that the US can compute and report a national aggregate. But the report sent on to The Hague will list only a range for your plant site, again in order to protect your Confidential Business Information.

Second, the relevant plants within the plant site are also identified, as they were for PSF Chemicals, but no quantity is required. Instead, for these plants a declaration of main activities is required as was done previously for the Discrete Organic plant sites. However, the main emphasis for Schedule 3 is still on the plant site.

Third, at the plant site level, along with the amount produced, you'll indicate the purpose of that production.

Fourth, the additional activity that must be declared for Schedule 3 is foreign trade. The report is of the specific quantity of each Schedule 3 chemical imported from or exported to each country. Companies that do not produce reportable amounts of Schedule 3 Chemicals will still have to report on chemical trade above the annual threshold. Indeed, trading companies or other persons who need to report only on imports or exports of the Scheduled Chemicals will not necessarily have a reportable plant site as such, but will still be required to submit a declaration.

Another additional feature for Schedule 3 is annual reporting on anticipated production above the reporting threshold. This report will be made for the first time at the end of the first full calendar year after EIF. You may want to anticipate your expected annual production on the high side, since increases in declared production must be reported before your originally anticipated amount is exceeded. On the other hand, falling short of your expectations requires no reporting. What constitutes a reportable increase

is yet to be determined. Your anticipated activities also play a different role. Your initial declaration and each annual report on Schedule 3 chemicals is required if the production that you anticipate for the year in which you are making the report is above the reporting threshold.

The final additional feature for Schedule 3 is a one-time report for any plant site with any production since 1946 for Chemical Weapons purposes. That is, did your company produce any Schedule 3 Chemicals and then sell them to the US or any other country for a chemical warfare agent production program. The government does not expect you to have records going back that far and will assist in meeting this declaration requirement by searching its archives, as required.

Now let's look at two examples facing companies trying to decide whether to declare Schedule 3 Chemicals. **[II-42A]**

What declaration, if any, is required if a facility produced these chemicals in 1994? **[II-42B]**

This example shows the need for a declaration of a Schedule 3 Chemical above the 30 tonne threshold. The other Schedule 3 Chemical is produced in a quantity below the threshold and is not declared. **[II-43A]**

This fellow is going into the pesticide business in 1997 and has begun construction of the basic feedstock plant which will convert phosphorus trichloride into the oxychloride. What are the first 2 reports? **II-43B]**

This example illustrates the requirement to do reporting based on anticipated production. The entrepreneur will report only on the oxychloride. First, will be a declaration on his anticipated activities for all of 1997, submitted in the fall of 1996. Then, in January 1997, there'll be an annual report for all of 1996, when the plant is being built. **[II-44A]**

Schedule 2 Chemicals are of greater interest than the chemicals I've been discussing, from the Treaty's viewpoint, because these chemicals are closer to final chemical warfare agents and smaller amounts are determined by the Treaty to be significant. Thus, Schedule 2 has more detailed reporting. It also includes generic families of chemicals designated by the "R"s in the names. Those families could theoretically involve thousands of compounds, not all of which have been synthesized, of course.

The specified examples listed for one Schedule 2 family -- which are dimethyl methyl phosphonate and methylphosphonyl dichloride -- are only the 2 most likely chemicals in the family to be declared; they are not to be interpreted as in any way limiting the extent of chemicals that might be specifically declared. Also note that the few specifically excluded chemicals on Schedule 2 -- Fonofos pesticide and some dialkylaminoethanols -- are instead just to be considered as Discrete Organic and PSF Chemicals.

Because all of the reportable Schedule 2 chemicals are not specifically listed in the treaty, it will be necessary for companies to provide chemical names, CAS numbers and structural formulas for the chemical-specific reporting on any chemicals that are not listed.

Perhaps a couple of dozen additional chemicals might be reported this way, including some pesticides and complex fire retardants.

The thresholds for Schedule 2 reporting are considerably lower than for Schedule 3, as Mr. Ziemba discussed. The basic Schedule 2 reporting is an initial declaration and an annual report on the previous year's activities. **[II-44B]**

There is also, like for Schedule 3, a report on anticipated activities, but for Schedule 2 this report requires the calendar periods of each activity during the year, which might once again be reported on the high side and in time periods of up to three months.

Much of the Schedule 2 reporting is similar to that for Schedule 3. But there's more. First, in addition to production, exporting and importing Schedule 2 Chemicals, you must also declare processing and consumption.

Second, the number of years that are covered is expanded from what was required under Schedule 3. The initial declaration covers data for the previous three years. This means that if the CWC enters into force in 1995, the initial Schedule 2 declaration will cover 1994, 1993, and 1992. Calendar year 1995 reporting would be picked up in the 1996 annual report.

Similar to Schedule 3, though, is that this initial declaration is also made if any production, processing or consumption is anticipated to exceed the threshold in 1995. And subsequent annual reports on just the immediately previous year will continue to be made if any of those Schedule 2 activities exceeded the threshold in any of the three prior years or during the year when the report is being made.

Third, the basis for the Schedule 2 reporting threshold is not the plant site, as for Schedule 3, but the plant, as was previously the case for the PSF report. Specifically, if any plant is above the threshold, then one detailed form is completed about the plant and several more are completed for the plant site in which it's located.

The distinction between plants and plant sites in determining your declarations is also significant because it provides important limits on what can later be inspected. For instance, for a large plant site only required to declare a small Schedule 2 plant located within the plant site, the routine inspection of the facility to verify the accuracy of the declaration would be strictly limited to the small declared Schedule 2 plant. **[II-45A]**

The two additional activities for Schedule 2 reporting that I mentioned earlier -- consumption and processing -- merit further discussion. Consumption is a very narrow category, defined as a chemical reaction with a Schedule 2 chemical as a reactant. Processing, in contrast, is a broad category that includes many activities that are often included in declarations of "manufacturing" for other domestic regulations. An easy way to keep these two terms straight is to remember that consumption involves a chemical reaction while processing is an activity in which the chemical does not undergo a chemical reaction. Distillation is a good example of processing. Incineration would be an example of consumption.

Reports in regard to processing are required from manufacturers of formulations containing Schedule 2 Chemicals if threshold quantities of Schedule 2 Chemicals are exceeded and if the Schedule 2 concentration exceeds the guidelines anywhere in the

process. The user of a mixture or formulation will need to declare involvement only if the Schedule 2 Chemical is present above the low concentration guideline and either of the following situations exists: 1) the mixture or formulation is further "processed," and in that processing the total annual weight of the Schedule 2 Chemical exceeds the declaration threshold; or 2) the mixture or formulation is used as the starting material for a subsequent chemical reaction whereby the Schedule 2 Chemical contained in the formulation is converted into another chemical and the total annual weight of reacted Schedule 2 Chemical exceeds the declaration threshold. **[II-45B]**

Each of the 5 Schedule 2 activities, and the 3 for Schedule 3, are reported separately; they are not added together. However, I did mention that several production amounts may be added. Similarly, then, one might ask what is the reportable amount of Schedule 2 processing when more than one type of processing takes place in a sequence? Current thinking is that the amount to be reported will be for the final declarable processing step in each declared plant.

A unique reporting requirement is that production capacity must be declared for each Schedule 2 chemical plant. If the capacity has changed from the declared year to the time when the report is being prepared, current thinking is that you should report the present capacity and keep records to show why the capacity during the reported year was different. Changes in the capacity will subsequently be reported as part of each annual and anticipated activity report.

Schedule 2 reports have additional questions covering the purpose of all declared activities and the disposition of the chemicals: namely, the products of subsequent processing, or of consumption; any domestic transfers and the recipients' purposes; any exports, and how much of each chemical to what countries; or any other type of disposition. The quantity of imports is also requested on a country-specific basis.

Finally, Schedule 2 Chemicals, like Schedule 3, also have a one-time report for any plant site with any production there since 1946 for Chemical Weapons purposes. **[SLIDE OFF]**

Do you have questions on any of the examples or maybe you have some examples of your own?

Let me just say a brief word about Schedule 1 declarations. Schedule 1 Chemicals are of extreme concern to the CWC because of their high toxicity and immediate utility as chemical weapons. If any of you are involved with Schedule 1 chemicals, in aggregate quantities above 100 grams per year, you should contact the Department of Commerce and explain the circumstances. Schedule 1 facilities will be handled on a case-by-case basis.

Despite the complexities of the declaration requirements that I've covered this morning, especially if this is new to you and you're not a chemist or chemical engineer, tests of the draft declaration forms and instructions have shown that the time required to prepare declarations is remarkably short. Additionally, as I mentioned before, the Department of Commerce plans to provide telephone assistance for any of your CWC-related questions.

For now, it's sufficient to merely determine whether or not your company may have a declaration requirement and, if so, to begin gathering the needed data. And, by all means, stay tuned for further information.

I'll now be happy to take any more questions on any aspect of the reporting.

If there are no more questions, I thank you for your attention. Now, we'll break for lunch. Just go out the door and turn left/rt etc. Someone will be present in this room during the entire lunch break to watch things left here. We'll reconvene here at 12:30 when Michael Moodie will describe the procedures for inspections and the provisions for the protection of confidential business information.

I.6 CWC INSPECTIONS

I.6.A PLANT INSPECTIONS [II-47A]

You have heard an overview of the history and current status of the chemical weapons treaty, how we got where we are, and what are some of the rights and obligations of both governments and the commercial chemical industry. Gordon Burck has told you of the chemicals which are covered and the declarations which you will have to supply to the U.S. government. These declarations are a significant part of the verification process which is the lynch-pin of the treaty.

So far all of this involves your dealing with your own government, which in turn will aggregate your inputs and transmit much of it to the central repository of the OPCW. You will have no direct dealing with the OPCW until the next step occurs. That involves possible verification of your declarations by an on-site inspection of your facilities to ensure that you and, by direct association, your government, are in compliance. Verification will require you to interact directly with representatives of the OPCW as they inspect your site. **[II-47B]**

Before going into the mechanics of how this will work, I'd like to note that both the government negotiators and the industry representatives who participated in many of the discussions on CWC inspections felt very strongly that a properly structured verification system was essential to making the treaty work and also to protect the interests of the chemical industry. Of the more than 150 pages of the treaty, 2/3 address verification. As a key part of that verification process, industry and governments recognized that the right to inspect is a must and that in order to be able to inspect sites suspected of being in violation of the treaty, all sites must be eligible for inspection under prescribed guidelines. Some of these guidelines are shown on this chart. **[II-48A]**

What I'd like to do is go through a sequence as to how an inspection is initiated and a scenario that might actually take place. So let's assume that you have submitted your declarations to the Department of Commerce and the Office of National Authority has compiled all the declarations and submitted its National Declaration to the OPCW. If you are a producer, consumer or processor of a Schedule 2 chemical above certain threshold quantities, you become eligible for a routine inspection and will be inspected within three years after the treaty enters into force. The sequence is as shown. **[II-48B]**

It's important not to become overconfident and that you can take the gamble that your site will not be visited for two or three years. Initial inspections will probably be carried out as soon as possible, and U.S. facilities will probably receive some of the early visits, if only to show good cooperation by the U.S. Government and no discrimination against less developed countries. **[II-49A]**

At the start of this initial inspection, you and the National Authority will draw up a facility agreement with the inspection team which spells out the parameters of the inspection with regard to location, records that can be reviewed, sampling locations, and what kind of support services the site will provide. The chart shows the sequence.

It definitely is to your advantage to have a facility agreement since you can negotiate with the inspectors not only to minimize intrusion into your facility, but also to try to reduce the burden on your support resources. But you should be aware that the

facility agreement is legally between the National Authority and the OPCW. Although your site should be able to have direct input into the facility agreement, you may not be supported by the U.S. Government if your proposals do not satisfy treaty obligations.

That being the case you may want to consider the merits of a voluntary trial inspection at your site. Over the past several years, the U.S. Government, working with CMA and a number of commercial chemical companies on a voluntary basis, has held several national trial inspections to determine the effectiveness of various inspection procedures and to gain some insight into the burden placed on industry. These inspections have been a good learning experience for all involved. I mention this since you may be asked to participate in one of these trial inspections if more are held. **[II-49A]**

Your site has been notified by the National Authority that an inspection will take place in some time frame, under 48 hours. What do you do? An important starting point is to identify a contact person at the site who would activate your host team, which may be either specific to your site or a company-wide team you have established to handle this kind of a situation. Once notification has been received, you prepare for the inspection as shown in this chart. **[II-50A]**

What does the National Authority do after notifying you? They will meet and process the inspection team at the Point of Entry, transport them to your site, and may then remain at your site with the team. I would note exact details of this process have not yet been finalized.

You now have a CWC inspection team and perhaps a few National Authority representatives at your gate. **[II-50B]**

This inspection team is an international group of technically trained individuals drawn from State Parties to the Treaty who work for and represent the interests of the OPCW and not those of their respective national governments. **[II-51A]**

The team is expected to be knowledgeable in the technology that you employ at your plant site. Its information will be gleaned from the declaration you provide and a study of whatever public literature is available such as Stanford Research International reports. They will also be knowledgeable in both specific and general technology for the production of chemical weapons agents, key precursors, other scheduled chemicals, and closely related chemicals. **[II-51B]**

What are your immediate responsibilities? You will escort the inspection team to a conference or briefing room and also provide a room -- perhaps the same one -- that they can use as their base of operations. You will brief them on the layout of your plant site, the location of the facility they have come to inspect, the safety practices and precautions of which they should be aware, the facility point of contact and escorts they will have, and any other matters relating to the support you will provide to enable them to carry out their duties as inspectors. This will, in effect, begin the facility agreement negotiation process. **[II-52A]**

The inspection team leader will state the purpose of the inspection and present the equipment and other support systems they plan to use. **[II-52B]**

The team leader will then explain to you that:

(1) The team is acting under the jurisdiction of the OPCW.

(2) The general aim of the inspection is to verify that your activities are in accordance with your obligations under the treaty and consistent with the information provided in your declaration.

(3) The focus of the inspection will be the declared Schedule 2 facility.

(4) They are here to verify your declaration and the absence of any Schedule 1 chemicals. (They will also be alert to the presence of any undeclared Schedule 2 or 3 chemicals.)

(5) They are here to verify the consistency of the observed levels of production, processing or consumption of Schedule 2 chemicals with the declaration data you provided.

(6) They are to verify that no diversion of Schedule 2 chemicals is occurring for purposes prohibited under the treaty. This includes diversion to an undeclared location on your plant site and/or to another off-site location -- including export.

(7) They also may request access to other parts of the plant site, access to records, interviews with plant personnel and random sampling, but such access, if it is beyond the terms of the agreed facility agreement, will be subject to managed access procedures which I'll discuss later. **[II-53A]**

The inspection team might consist of 9-10 people, but the actual number and make-up of the team will vary depending on the size of the plant site, the type and number of chemicals involved, and the type of operations declared existent at the site. As I said, the team may also be accompanied on to your site by several National Authority representatives. **[II-53B]**

The inspection team will bring various items of detection equipment ranging from test papers to sophisticated gas chromatograph/mass spectrometers (GC/MS), laptop computers, and other support equipment.

All of their carry-in equipment will have been approved and certified by the OPCW as reliable, electrically safe, and tamper-free. The certification that a piece of equipment is electrically safe means that it conforms to the highest standards required for any States Parties' chemical plants.

You will have the right to examine the inspection team's monitoring and analytical equipment and define the use parameters, and you may also have the opportunity to finalize or update, if necessary, your facility agreement. You normally will have a maximum of 3 hours from the time that the inspection team enters your site to carry out the safety briefing and check the equipment.

The inspection of a Schedule 2 facility is planned to take a maximum of 96 hours. However, the team leader may terminate the inspection earlier or alternatively may request

an extension of time. The inspection team may negotiate this extension, but it is not automatic and can be denied.

The inspection team may break into sub-teams in order to cover different segments of the inspection site. If providing facility escorts is a real hardship for your company, you may be able to negotiate fewer groups. **[II-54A]**

What areas will the inspection likely cover?

- the team may ask you to operate equipment in order to clarify some aspect of their inspection. If this is a hardship, you may be able to negotiate an alternative. **[II-54B]**
- lines from the reaction vessels leading to long-term or short-term storage or to equipment involved in processing of the declared Schedule 2 chemicals.
- lines which may indicate opportunities for diversion.
- control equipment associated with any of the items above.
- equipment, piping and areas for waste and effluent handling.
- equipment, records and areas for disposition of chemicals not meeting specifications. **[II-55A]**

The inspection team may request that you take samples from designated locations to confirm the absence of any undeclared Schedule 1 and 2 chemicals and also to confirm the presence of chemicals you did declare and in the appropriate amounts.

You may refuse to allow sampling in some specific cases such as inside some operating equipment. But if you refuse to allow a sample, you are still obligated to satisfy the CWC compliance concerns of the inspection team that the request for sampling is intended to address. Failure to take a sample may lead to an ambiguity that could raise concerns about a possible treaty violation.

The team may also ask to sample air, liquid and gaseous emissions from process equipment and from adjacent soil or other exposed surfaces. **[II-55A]**

All samples will be identified as to the location from which they were taken, and tagged with a label signed by the inspector and a member of the host team.

All samples are subject to on-site analysis either using the equipment brought on site by the team or at your available analytical facilities (if appropriate) in the presence of a team member. If the on-site analysis is inconclusive or the available analytical equipment is not capable of giving a clear answer, the team has the right to send a split sample for off-site analysis at a designated laboratory that has been certified by the OPCW. You would retain the other portion of the sample for future reference. There will be a formalized procedure for maintaining a chain of custody as well as for packaging and shipping the sample to the designated laboratory in a coded, secure manner. **[II-56A]**

The inspection team may ask to see appropriate plant records to provide assurance that there has been no diversion of the declared chemical(s) and that production has been consistent with declarations. Access to pertinent records should be provided under the terms of the treaty. What is considered pertinent may have to be negotiated.

It will be your responsibility to ensure that your records are up-to-date and deal only with the chemicals and equipment of concern under the CWC. Many sites maintain a common register for feed chemicals, a common record for all chemicals used in a facility regardless of the end product, and even additional data on unit cost, supplier, etc. If you consider any of these CBI, you must either isolate all records pertinent to the scheduled chemical or mask the record documents in such a manner that protects CBI while satisfying the inspection team that your plant has not engaged in activities inconsistent with treaty obligations. Remember, however, that dual records may appear suspicious.

Records requested may also include process flow diagrams, specifications, equipment structural data, instruments, design, etc.

The United States believes that records may not be removed from the site, but the team may request that the records or copies be stored in a locked container and made available to subsequent inspection teams to assure them that if changes have been made to the plant between inspections, they have been declared.

Normally for this kind of inspection, personnel and health records will not be reviewed. **[II-56B]**

The inspection team may also ask spot questions of site personnel or even ask for more formal interviews. Your response will obviously vary depending on the nature of the questions, but you do have the right to protect CBI and to have management present. You may also be advised by the National Authority representatives as to your required degree of compliance. Clearly, it is in your interest to have trained and knowledgeable personnel available to answer questions. **[II-57A]**

The inspection team may also request photographs of inspected areas. These will be taken with instant cameras (such as Polaroids) that the team brings with them. Two photos will be taken each time. You retain one and the other either stays in a locked box or goes with the inspection team. If either you or the team feels that the photo is not satisfactory, another set of photos may be taken. We believe that if you feel the photo compromises your CBI, you can negotiate the taking of a substitute photo that is "managed" so as to protect your trade secrets. This could be accomplished, for example, by shrouding non-treaty related equipment or stored chemicals. **[II-57B]**

The length of the inspection differs for different schedule chemicals and discrete organic chemicals. These time periods are for "around-the-clock" inspections. The inspection time may be shortened by the team leader, or an extension may be requested. Extensions are negotiable, but not mandatory.

When the team leader is satisfied that the inspection mandate has been fulfilled, the team is required to give you a preliminary report at the end of the inspection. **[II-58A]**

To do this, there will be a debriefing session to clarify the team's findings and to try to resolve any anomalies. Both the inspection team leader and the senior national authority representative, if present, should sign the report. Otherwise your senior person does the signing of the report. **[II-58B]**

The inspection team will then pack up and leave the site. They will return to their headquarters where they will prepare a final report. No later than 10 days after the inspection, the OPCW will submit a draft report to the National Authority. Any written comments that the National Authority may make on the draft shall be annexed to it. The final report with annexed comments shall be submitted to the Director-General not later than 30 days after the inspection.

This has been an overview of routine inspection activities for a declared Schedule 2 facility. To summarize: **[II-59A]** **[II-59B]**

It's important to keep in mind that the inspection team does not decide or state whether you are in violation of the treaty. The decision is left to individual States-Parties to the treaty. The team will point out anomalies and try to resolve them. Any remaining anomalies, as well as their resolution, will be reported to the OPCW.

Unless there are significant concerns over actual or potential violations, the facility is unlikely to be inspected again during the same calendar year.

The example we've used is Schedule 2. **[II-60A]**

Requirements for declarations and inspections for Schedule 3 chemicals and facilities differ somewhat from the treaty requirements for declarations and verification of Schedule 2 chemicals. The major differences are that for Schedule 3 chemicals, only production and import-export data have to be declared, and threshold quantities that trigger declarations and inspections are much higher. **[II-60B]**

The declarations that are required for Schedule 3 chemicals are triggered if a plant produces more than 30 tonnes per year of a Schedule 3 chemical. You can see the comparison with Schedule 2 requirements.

Inspection guidelines for Schedule 3 facilities are also less restrictive. Routine inspection activities are aimed at plant sites that produce in excess of 200 tonnes aggregate of Schedule 3 chemicals. What this means is that normally a plant site that produces less than an aggregate of 200 tonnes of any combination of Schedule 3 chemicals will probably not get inspected -- unless there are grounds for suspicion of a clear-cut violation of the CWC, which might result in a challenge inspection. **[II-61A]**

Schedule 3 plants subject to routine inspection will be randomly selected based on geographical distribution, concern over the nature of the specific chemical or chemicals being produced, the overall characteristics of the site and the nature of the activities at the site. **[II-61B]**

There is no requirement for a facility agreement, unless requested by the inspected party.

Note also the increased advance notification time: 120 hours for Schedule 3 versus 48 hours for Schedule 2 facilities. Inspection duration is also much shorter, 24 hours for Schedule 3 versus 96 hours for Schedule 2 facilities. **[II-62A]**

The focus of the inspection shall be the Schedule 3 facility with major emphasis on verifying the absence of any Schedule 1 chemicals.

Areas to be inspected may include the same types of locations, support systems, and equipment as in Schedule 2 inspections.

The period of inspection is normally no more than 24 hours, but extensions may be negotiated.

How will this work in practice? Basically, very similar to a Schedule 2 inspection -- but compressed in time once it starts.

The National Authority will receive not less than 120 hours notice that an inspection team will arrive at a Schedule 3 plant site (versus 48 hours for Schedule 2 facilities) and then the procedures are similar to those followed earlier. Clearly, plant inspections for Schedule 3 chemicals will take less time and put less of a demand on your site resources.

An inspection regime for Discrete Organic Chemical Production Facilities is not a certainty. The OPCW will decide whether such a regime is needed three years after the CWC enters into force. The declaration threshold will be high -- more than 200 tonnes of non-Schedule discrete chemicals or more than 30 tonnes of a non-ScheduleD discrete organic chemical containing one or more of the elements phosphorus, sulfur or fluorine.

Verification by on-site inspections, if they occur, will be based on the same criteria used for facilities producing Schedule 3 chemicals. The objective is to determine consistency with the declarations and the absence of Schedule 1 chemicals.

Notification of an inspection shall be no less than 120 hours, and the inspection itself will normally not exceed 24 hours. **[II-62B]**

To summarize, the facilities of the chemical industry will be subject to on-site verification by an international inspection team. The selection of a facility for an inspection will be based upon its perceived potential threat to the CWC. Therefore, producers, consumers, and processors of Schedule 2 chemicals will have a higher profile than producers of Schedule 3 chemicals. Other chemical production facilities, especially those producing chemicals containing phosphorus, sulfur, or fluorine, may also be eligible for, and subject to, inspection to ensure that they are not being used to make scheduled chemicals that have not been declared.

Inspection teams may inspect your equipment and your records, take samples, and analyze them both to confirm your declaration and also to look for evidence of treaty violations. You will receive and be able to comment on a draft report of their findings.

I.6.B CHALLENGE INSPECTIONS [II-63A]

In addition to the routine inspections I've just discussed, the treaty also provides for challenge inspections. These are inspections undertaken by the OPCW only at the request of a State Party. Any site declared or undeclared may be challenged provided there is legitimate cause.

While the word challenge in challenge inspection denotes an adversarial relationship, the intent in the treaty text is that a challenge inspection is a means of clarifying a situation and satisfying a State-Party that another State-Party is not violating the principles of the Convention. This covers all the treaty's prohibitions -- not making chemical weapons, not storing them, and not using them, plus all the other prohibited actions spelled out in the treaty. While this is primarily of concern in a military sense, the commercial chemical industry could also be involved in a challenge situation if there is a question of non-compliance with the treaty. **[II-63B]**

This chart shows three concerns that could lead to a challenge inspection. Challenge inspections will be conducted under the concept of managed access. This means that the inspected State Party controls inspector access and activities. However, if access is denied or limited, the inspected State Party is then obligated to make every reasonable effort to provide alternative means to clarify the concern that generated the challenge inspection. **[II-64A]**

You have heard the term Managed Access used a number of times in this and some of the following presentations, and I would like to take a moment to briefly define its meaning and intent. The drafters of the Treaty recognized that in the course of an inspection of any site, there would be the inevitable opportunity to observe and record information on various items which have no bearing on the objectives of the Treaty. In order to protect this category of information, the concept of Managed Access was introduced. It means that the inspected site may take measures to protect certain information which is not related to the CWC, but only that information which is not related. Some of those measures are shown on this slide. **[II-64B]**

All related information must be made available to the inspectors on demand. While some of the measures that a site may take are shown here, the inspected State-Party is obligated to try to satisfy athe inspectors. How can you satisfy the inspectors that you are not violating the Treaty? **[II-65A]**

Some of the possible methods are shown here. They may include but are not limited to:

- allowing only one inspector to enter a building or to see part of a shrouded piece of equipment;
- allowing the inspection team to select from a coded map of the site one or more random locations which may not be adjacent to each other; or
- carefully controlling the route by which inspectors are escorted through your site;
- suggesting that sampling be done at a location that will not compromise trade secrets, but will still convince the inspectors that you are in compliance; or

- limiting the analysis of a particular sample to a narrow band that only identifies scheduled chemicals or their signatures, such as specific degradation products.

All of these approaches are negotiable, but you must try to satisfy the inspectors and not frustrate them. This is Managed Access.

I.6C CBI -- PROTECTION OF CONFIDENTIAL BUSINESS INFORMATION [II-65B]

Protection of CBI has always been the area of greatest concern to the worldwide chemical industry and led to a tremendous effort on the part of the chemical industry associations to ensure that the drafters of the CWC were aware of our concerns. **[II-66A]**

The efforts on industry's behalf were spearheaded by working groups from the Chemical Manufacturers Association (or CMA) and the European Chemical Industry Council (or CEFIC), and were supported by the chemical associations of Canada, Australia, Japan, and Brazil. CMA met regularly with U.S. Government officials in Washington and annually for 5 years with the diplomat-negotiators in Geneva. It was a good working relationship, and not only did industry show its full and unreserved support for the Convention, but we were able to find ways to make it technically more effective and to conserve the resources of both the OPCW Technical Secretariat and industry.

Industry should be pleased that most of our recommendations to protect CBI were adopted in the text of the Convention, including an entire Annex devoted to protection of confidential information.

What are some of industry's concerns and how were they addressed? **[II-66B]** Industry's major concerns related to technology, business, and personnel.

Most sites use non-patented know how -- such as sequence of addition of reactants, use of a nitrogen blanket, a common chemical as a catalyst -- many of which cannot be patented or if patented, could not be enforced.

Many sites use special equipment that leads to higher yields or purer products, but which basically is not patentable, or not readily enforceable in some countries.

Research in many areas of the chemical and pharmaceutical industries is highly competitive globally and even small amounts of information can give away years of costly research.

Pilot plants are always a good source of determining where your competition is headed, and contain information that can save years of R&D effort.

Samples taken at key locations can disclose catalysts or how a process is operated and cause you to lose a profitable competitive edge. **[II-67A]**

Business information is as valuable as technology. Access to records may also disclose cost data, marketing plans, customer and supplier lists, and perhaps confidential new uses for existing products before patent protection can be obtained. **[II-67B]**

Personnel are a valuable segment of our industry, and any information on who is involved -- their capabilities and fields of interest -- or even numbers of personnel working on a project can disclose valuable information to a competitor.

These are only some concerns, and I'm sure you can think of may others. **[II-68A]**

Under the chemical weapons treaty, industry will be inspected by representatives of an international organization, not subject to U.S. law. However, as you have heard and will hear again, the OPCW is formulating rules and the U.S. Government is developing implementing legislation both aimed at making the treaty effective and maximizing the protection of legitimate CBI. What is being done to address some of the areas of concern to indusry?

Since valuable information is at stake, it is not unreasonable to assume that an international inspector could deliberately or inadvertently disclose your CBI to a competitor.

In recognition of this concern, and at the urging of industry, the treaty reflects a series of measures aimed at protecting CBI. **[II-68B]**

Handling confidential information has several facets. It includes all of the declaration data provided by individual companies to the National Authority, the national inputs to the Technical Secretariat in The Hague, the storage of data, the dissemination of data by the Technical Secretariat to the member States Parties, and information acquired during inspections.

At the heart of the approach to protect CBI is the principle articulated in the treaty which calls for acquiring and transmitting the minimum amount of information to comply with treaty requirements. This means only that information relevant to CWC compliance and no other data is sought, collected, or processed.

The treaty requires the OPCW to set the highest standards of integrity for all members of the staff -- from the Director-General down to clerical personnel. There is an Experts Group at The Hague currently working on these criteria.

The PrepCom is developing rules for determining precisely who in the OPCW will have access to various categories of information. There should also be a chain of accountability for protecting CBI, starting with the Director-General. In fact, performance reviews will include how well OPCW personnel have followed the rules for protecting CBI. **[II-69A]**

Individual companies, working through the National Authority, will determine and designate data inputs as CBI. This classification will prevent the dissemination of such data outside the OPCW except under rigorously controlled conditions.

Storage of all data will be under controlled and secured systems with access on a need-to-know basis only.

Data management systems are currently being considered that could be used by the OPCW to provide a one-way computerized coded system, where input is easy, but output is under strict control of confidentiality.

Recruitment and security concerns for personnel are shown on the next chart. **[II-69B]** Formal position descriptions for each employee will include the extent of access to data inputs, data storage, and data dissemination.

There will also be restrictions on data disclosure during the employee's period of employment, including disclosures to other employees and certainly to non-employees or to States Parties. All OPCW personnel will sign a non-disclosure agreement prohibiting disclosure of any Technical Secretariat information for at least 5 years after termination of employment.

Penalties for unauthorized disclosure will include fines and possible loss of diplomatic immunity from prosecution. These provisions are being worked out in more detail by the Preparatory Commission. **[II-70A]**

Finally, all States Parties will be notified of the names of OPCW inspectors who will have access to confidential information or will participate in verification inspections. States Parties will have the opportunity to reject inspectors in advance, but not after an inspection has been announced. **[II-70B]**

Obviously, there is great industry concern over plant inspections. As I discussed earlier, the inspectors will not only have access to your physical facility, but they may see your technology in operation, take samples, have review records, and perhaps interview personnel. Also, they will discuss among themselves what they did and what they saw as a team, so that they will all have the same amount of information about your site.

The PrepCom is developing guidelines for inspection teams, that will require them to conduct CWC inspections in the least intrusive manner by limiting themselves to areas relevant to treaty concerns.

In addition, there are steps you can take during routine or challenge inspections to protect your CBI. These include managed access, shrouding of equipment or chemical storage and masking of controls, reports and other items. In such cases, however, you cannot forget the requirement to make every reasonable effort to satisfy the inspectors that you are protecting non-treaty related confidential information.

Finally, the inspection reports should only contain facts relevant to compliance with the treaty and no other data or information. Remember that the inspection team is primarily interested in whether you are complying with your declaration and are not doing anything which you should have declared.

There are further guidelines for handling the inspection data as shown on this chart. Some of these guidelines were discussed earlier under plant inspections. **[II-71A]**

The inspection team is to collect the minimum data needed for verification and remove the minimum information from the site. Information that may be useful to the next inspection team, but should not leave your site, may be stored in a lock-box secured at your site.

All samples removed from a site will be handled under a coded system, and the certified laboratory will not know the source of the sample they are analyzing.

All inspection data for backing up the reports will be retained at the OPCW under coded storage with no direct identification of the site. Access to inspection data will be controlled on a need-to-know basis.

The OPCW's Director-General is held fully accountable for protection of this data and is required to make an annual report on measures he has taken to insure confidentiality.

Despite these measures, there is always the possibility that a breach of security will still occur. The next chart shows the measures to be taken by the Technical Secretariat which will apply to the entire Secretariat staff. **[II-71B]**

These measures include a direct investigation by the Director-General or a key deputy on his staff, and if warranted, the imposition of punitive measures. States Parties are required to cooperate in all investigations of breaches of security or disclosure of confidential information. The OPCW will also establish a commission to settle disputes involving breaches of security and to determine whether redress or restitution is in order.

To summarize, the CWC calls for a number of measures to help ensure the protection of confidential information. You, as part of the chemical industry, can and must do your part to protect your own interests. **[II-71A]**

You should plan ahead as if your site will be subject to an inspection. It is not too early to start your planning this year. You have the opportunity to train your people, or at least a cadre who can train others. You should have an "evergreen" process to identify all data and equipment that are business confidential. We tend to become complacent in our everyday exposure to common records, chemicals, technology, and related items. In order to combat this tendency, you may want to run a trial inspection or two. I know of one facility where a trial inspection by government personnel and an in-house engineer playing the role of an industrial spy revealed what types of CBI were potentially vulnerable to compromise.

You can control and protect CBI, while fully complying with the CWC, but doing so will require commitment on the part of senior plant executives and careful management of your activities.

Finally, here are the sentiments of a plant manager concerning CWC inspections. **[II-72B]** Please read them and then ask any questions concerning CWC inspections.

Your next speaker will be Peter Mason, who will describe the implementing legislation.

I.7 IMPLEMENTING LEGISLATION AND OTHER LEGAL ISSUES

[II-73A] As you have heard from previous speakers, the CWC contains a number of novel and complex provisions that require implementing legislation to give them the effect within the United States. These include provisions on international inspections, declarations by the chemical industry, and the establishment of a National Authority. In addition, the CWC specifically requires the United States to prohibit all individuals and legal entities, such as corporations, within the U.S., regardless of their citizenship, and all individuals outside the United States possessing U.S. citizenship, from engaging in activities that are prohibited to the United States under the Convention.

To meet these obligations, on May 27, 1994, the Administration submitted to Congress its proposed "Chemical Weapons Convention Implementation Act of 1994." During the development of this proposed Act, comments were solicited from industry, specifically the Chemical Manufacturers Association (CMA) and twelve other industry associations, as well as from staffs of the Congressional Committees responsible for foreign relations, the armed forces, the judiciary, and intelligence matters. In addition, in drafting this legislation, we strove to use as much existing legislative precedent as possible. Statutes used included the Biological Weapons Anti-Terrorism Act (for the criminal provisions), the Toxic Substances Control Act (for the declarations and inspections), and the Export Administration Act (for the disclosure provisions).

Unfortunately, Congress was unable to complete its consideration of the CWC and the proposed Act prior to it adjournment. Accordingly, the Administration must resubmit the proposed legislation to the 104th Congress for its consideration.

With regard to the current status of the implementing legislation, the Administration is in the final stages of reviewing the proposed Act submitted last year in order to further address industry concerns and improve the quality of the legislation. A number of changes have been drafted and are being circulated by the Office of Management and Budget for comment by the various agencies and departments of the Administration. At this point, however, I do not know for certain what changes will be made.

Nevertheless, I do not anticipate that the legislation will be substantially different from the proposed Act of 1994. Therefor, what I would propose to do today is to give you a general overview of the 1994 draft legislation, but in doing so I will highlight some sections that are likely to be changed. **[II-73B]**

Let me begin by giving you a very brief overview of the proposed Act. The proposed Act contains six Miscellaneous Sections and four Titles. The six sections concern the short title of the Act, the table of contents, Congressional findings, and declarations, definitions, and a severability clause. Title I provides the authority for the President to establish the U.S. National Authority. Title II contains criminal prohibitions with regard to activities relating to chemical weapons (e.g., outlawing their possession, development, and use) and criminal prohibitions on the use of riot control agents as a method of warfare. This Title also implements the CWC's restrictions on activities related to Schedule 1 and 2 chemicals, such as the prohibition on transfers to non-Parties.

Title III contains provisions authorizing the U.S. Government to collect information and materials (e.g., samples) from members of the chemical industry as required by the CWC. This Title also flatly prohibits the disclosure of information obtained under the CWC

except in four specific cases which I will discuss later. Significant civil and criminal penalties are provided for unauthorized disclosures. At the same time, this Title also outlaws the failure to provide such information or materials, and provides penalties for those who refuse to do so.

Finally, Title IV sets forth procedures for the initiation and conduct of the international inspections required by the CWC. This includes provisions regarding notice, inspection time frames and scope, facility agreements, and legal mechanisms for ensuring that the U.S. can fulfill its CWC obligations to allow inspections, such as procedures for obtaining warrants. This Title also outlaws the refusal to allow, or interference with, inspections.

These then are the areas covered by the proposed Act. What are not covered are the issues of privileges and immunities for members of the international inspection teams, export controls, and liability. The Administration believes that U.S. obligations under the CWC with regard to these issues are already adequately provided for in existing law. **[II-74A]**

With this brief introduction, I will now fill in some of the details. As I mentioned earlier, the first part of the proposed Act consists of six miscellaneous sections. The most relevant of these, from industry's perspective, are the Congressional findings and declarations, and the definitions.

The Congressional findings are intended to demonstrate that body's recognition of the threat posed by chemical weapons, the materiality of the Convention in eliminating this threat, the significance of the verification regime for the success of the Convention, and the necessity the effective declarations and inspections implementation of the verification regime. This will provide a clear legislative recognition of the rationale and need for international inspections of facilities and locations within the entire United States, which will be important for any subsequent judicial review of the proposed Act.

There are also three Congressional declarations regarding U.S. policy with regard to the implementation of the CWC. The first two concern the provision of legal assistance to other Parties to the Convention and the importance of ensuring the safety of people and protection of the environment during the implementation of the Convention. At the suggestion of CMA, a third declaration on minimizing the burden placed on the U.S. business community pursuant to the CWC was added. It reads as follows:

> It shall be the policy of the United States to minimize, to the greatest extent practicable, the administrative burden and intrusiveness of measures to implement the Chemical Weapons Convention placed on commercial and other private entities, and to take into account the possible competitive impact of regulatory measures on industry, consistent with the obligations of the United States under the Convention.

Finally, the definitions section incorporates definitions set forth in the CWC and definitions of certain terms used in the Act, such as "United States" and "person." The term "United States" reflects the geographic scope of the obligations of Parties contained in the Convention, i.e., all places under the jurisdiction or control of a Party. Places under the jurisdiction or control of the United States include U.S. territory and certain places outside of the United States, such as U.S. military bases, aircraft, and vessels. The term

"person" is defined as broadly as possible to ensure that all possible entities are covered by the provisions. **[II-74B]**

Title I provides for the establishment of a National Authority to serve as the official liaison between the United States and the OPCW and other Parties to the Convention. The proposed Act requires the President to establish such a National Authority, but leaves it up to the Executive Branch to determine the appropriate structure. Since previous speakers have dealt with the National Authority, let me just briefly reiterate. The current thinking within the Administration is that the U.S. National Authority will consist of two entities -- a inter-agency working group which will make policy decisions and the Office of National Authority (ONA) which will be responsible for coordination and facilitation of administrative and logistical implementation matters and will serve as the point of contact between the United States and the OPCW Technical Secretariat. This structure will be set forth in detail in a forthcoming Executive Order. **[II-75A]**

Title II provides for criminal prohibitions with regard to activities relating to chemical weapons. It includes criminal penalties, procedures for seizure, forfeiture, and destruction of chemical weapons, and provisions for injunctions on prohibited activities. Violators can be fined or imprisoned for life or any term of years, or both. This part of Title II is modeled in large part on comparable language contained in the Biological Weapons Anti-Terrorism Act, which implements a similar obligation contained in the Biological Weapons Convention. This Title also implements the CWC's restrictions on activities related to Schedule 1 and 2 chemicals, such as the prohibition on transfers to non-Parties.

Title II is specifically required by paragraph 1 of Article VII of the CWC. Article VII obligates each CWC Party to prohibit individuals and legal entities, such as corporations, anywhere on its territory or in any other place under its jurisdiction from undertaking any activity prohibited to the Party itself under the Convention. Article VII also requires each Party to enact penal legislation with respect to such activities within its borders and to such activities by its citizens (but not its businesses) outside its territory. In other words, if you or your business engage in chemical weapons related activities within the United States, regardless of who owns the business or whose citizenship you hold, you are potentially criminally liable for those activities. Moreover, you personally, if you are an American citizen, can be held personally liable regardless of where your activities took place.

It is important to note, at this point, that what we are talking about is activities related to chemical weapons. Title II outlaws the knowing development, production, other acquisition, stockpiling, retention, direct or indirect transfer, use, ownership or possession of any chemical weapon. The assistance, encouragement or inducement of any person to do so, and attempt or conspiracy to do so is also prohibited. But, remember toxic chemicals are not considered to be chemical weapons where they are intended for purposes not prohibited under the CWC, so long as the types and quantities are consistent with such purposes. Permitted purposes run the gamut of peaceful purposes, and include industrial, pharmaceutical, medical, agricultural and research purposes. What this means is that legitimate, peaceful uses of toxic chemicals, with certain restrictions, which I will discuss next, are not subject to criminal or other penalties.

Before I move on, however, let me just mention that the Administration has been reviewing these provisions in order to further minimize the risk that persons or property

involved in legitimate activities will be subject to criminal or civil penalties under Title II of the proposed Act. **[II-75B]**

In addition to chemical weapons activities, the CWC also bans certain otherwise permitted activities in relation to the most dangerous chemicals, those listed on Schedules 1 and 2. Accordingly, following the CWC restrictions on Parties, Title II makes it unlawful for any person to produce, acquire, retain, transfer or use Schedule 1 chemicals unless the following criteria are met. First, they must be used only for research, medical, pharmaceutical or protective purposes. Second, the types and quantities used must be strictly limited to those that can be justified for such purposes. Finally, the amounts may not exceed limits to be established by the U.S. Government. Under the CWC the aggregate amount of Schedule 1 chemicals in the United States at any given time may not exceed one metric ton. Some of this quota will be used by the U.S. Government for protective purposes such as determining the adequacy of defensive equipment and measures. The proposed Act provides for the remainder to be apportioned among private individuals and legal entities doing permitted work with Schedule 1 chemicals.

In addition to these domestic constraints, for non-proliferation reasons and as an incentive to join the Convention, the CWC contains restrictions on transfers of Schedule 1 and 2 chemicals to States that are not Party to the CWC. Accordingly, under Title II, transfers of Schedule 1 chemicals to persons located in non-Parties are outlawed. Title II also prohibits transfers of Schedule 2 chemicals to any person located in a non-Party, as well as receipts of such chemicals from any person located in a non-Party. Transfers through the territory of non-Parties are allowed, however, as long as the end-user is located in a Party to the Convention. In accordance with the CWC, however, the Schedule 2 restrictions will not come into effect until three years after the Convention enters into force.

Finally, the effective date of Title II is the same as the date the Convention enters into force for the United States. This ensures that the prohibitions with regard to the U.S. Government and with regard to individuals and legal entities begin at the same time. The rest of the Act is intended to become effective prior to this date. This will provide as much time as possible to establish the required legal authority and procedures necessary to implement the Convention.

Title III, which concerns declarations, and Title IV, which concerns inspections, represent the key titles with regard to industry. Title III contains provisions regarding reporting of information required by the Convention, restrictions on disclosure of information obtained under the Convention, and penalties for failure to provide information. A number of these provisions are modeled after similar provisions in the Toxic Substances Control Act, which we believe represents the closest analogy in U.S. domestic law to the verification regime created by the CWC. **[II-76A]**

Title III requires industries to maintain, permit access to, and provide the information necessary for the United States to make the declarations required under the Convention. Failure to do so is specifically prohibited, and civil and criminal penalties are provided for violations.

By the same token, Title III also requires the U.S. Government to avoid duplication of reporting required pursuant to other laws by, among other things, coordinating actions among agencies and departments. I should also note that the Administration will

probably add language proposed by CMA that will require the Department of Commerce to take into account decisions made by the OPCW. As noted previously, however, the precise details of the collection of information will be worked out in the regulations which are being drafted.

The Administration recognizes that protection of confidential business information supplied by industry is one of the keys to the successful implementation of the Convention. Accordingly, in addition to the protections built into the CWC itself, such as facility agreements and the provisions of the Confidentiality Annex, the proposed Act contains a very strict non-disclosure provision. **[II-76B]**

Specifically, the proposed Act exempts information and materials provided pursuant to declarations and inspections from the provisions of the Freedom of Information Act. If enacted, this provision will allow the U.S. Government to protect all information or materials supplied by industry without requiring an inquiry into whether there are, for example, proprietary interests in such information.

In addition, the proposed Act prohibits public disclosure of such information or materials except in four cases -- disclosures to the OPCW and other Parties to the Convention, disclosures to appropriate Congressional Committees and subcommittees, disclosures to agencies and departments for law enforcement purposes, and disclosures determined to be in the national interest. Of particular note is the exception for law enforcement agencies. This is designed primarily for the situation in which U.S. Government personnel accompanying inspectors happen to witness evidence of a crime. In such a case, the Government would not be precluded from using such information in any subsequent prosecution, including those that are not directly related to enforcement of the CWC.

Let me point out, in passing, that FOIA experts within the Administration have proposed some technical amendments to the FOIA provisions in order to ensure that they provide the strongest possible statutory authority for excluding information from public disclosure. **[II-77A]**

To add teeth to these non-disclosure obligations, Title III also contains significant criminal penalties for unauthorized willful disclosures of information or materials obtained pursuant to the CWC. In fact, offenders can be fined or sentenced to prison for up to five years.

Please note that these disclosure provisions have been made specifically applicable to members of the international inspection teams. While such individuals generally are immune from U.S. laws during their performance of official duties, they can be prosecuted when the Director-General of the Technical Secretariat has waived their immunity. **[II-77B]**

Title IV contains procedures for conducting routine inspections of chemical industry by the Technical Secretariat, as well as other types of OPCW inspections. It also contains legal mechanisms for compelling non-consensual inspections. To the extent possible consistent with U.S. obligations under the CWC, the proposed Act was drafted in such a manner as to commit the U.S. Government to assisting industry in protecting its rights during inspections. In addition, these provisions have been drafted so as to fully protect the Constitutional rights of individuals and legal entities. As with Title III, a number of

these provisions are modeled after similar provisions in the Toxic Substances Control Act. **[II-78A]**

The first part of Title IV provides the domestic legal framework for the conduct of inspections of chemical industry by the international inspectors of the Technical Secretariat. Specifically, it sets forth procedures with regard to authority to inspect, provisions of notice and credentials, time frames for inspections, scope of inspections, sampling and safety, facility agreements, and coordination among U.S. Government agencies and departments. While intended primarily for routine inspections of chemical industry, these procedures are also designed to be used for any other inspections required by the Convention, e.g., challenge inspections of private facilities.

It is important to note that these procedures for international inspections involve U.S. Government assistance. Title IV does not provide for separate inspections by the U.S. Government to enforce the CWC. Instead, for the purposes of U.S. law, the CWC will be enforced by the normal civil and criminal processes, although information gathered during international inspections is not precluded from being used in these processes. In addition, it is likely that changes will be made to the legislation that are designed to minimize the number of government officials accompanying an inspection while retaining the flexibility necessary to support the various kinds of inspections under the CWC.

Under the proposed Act, the inspection procedures are as follows. First, Title IV requires the U.S. Government to provide notices of inspections and to present appropriate credentials for Technical Secretariat and, if present, U.S. Government personnel. At the suggestion of CMA, separate notices will be given to the owner of the facility and to the operator, occupant or agent in charge of the facility, although separate notices are not required for each entry. Also, while a notice is required to conduct an inspection, failure to receive a notice cannot bar an inspection. The notice provided by the U.S. Government will contain all appropriate information supplied by the Technical Secretariat. This means the Government will provide as much information as possible but is not required to provide all information since this may involve classified or other sensitive foreign policy or national security information.

Second, Title IV requires that, consistent with the provisions of the CWC, all inspections must be commenced and completed with reasonable promptness and conducted at reasonable times, within reasonable limits, and in a reasonable manner. In particular, the U.S. Government must endeavor to ensure that, to the extent possible consistent with the CWC, each inspection is commenced, conducted, and concluded during ordinary working hours. It is true that, in theory, the Technical Secretariat's inspectors could work around-the-clock since the duration of inspections under the CWC is set in continuous hours. However, these requirements will commit the U.S. Government to exercising its influence on behalf of inspected facilities to ensure that inspections are conducted in a reasonable manner.

Third, Title IV sets forth the permitted scope of inspections conducted pursuant to the CWC. In general, an inspection may extend to all things within the premises to be inspected related to whether the CWC has been complied with. However, to the extent possible consistent with the CWC, no inspection can extend to financial, sales and marketing (other than shipment), pricing, personnel, research, patent or environmental and health regulations data. In other words, the data considered to be the most sensitive to proprietary concerns and the least relevant to compliance with the CWC will be given

the most protection. The United States cannot flatly prohibit collection of this information by the Technical Secretariat. Nevertheless, this provision is intended to commit the U.S. Government to exercising its influence on behalf of inspected facilities to ensure that, to the extent permitted by the CWC, information not relevant to compliance with the CWC is protected from disclosure.

Fourth, Title IV provides for the conclusion of facility agreements and the participation of facilities in negotiating such agreements. Under the CWC routine inspections of facilities that have facility agreements must be conducted in accordance with those agreements. Facility agreements are mandatory for Schedule 1 facilities. They are also required for Schedule 2 facilities unless the Technical Secretariat and the inspected party agree otherwise. For Schedule 2 facilities, the proposed Act gives the facilities the right to turn down a facility agreement, provided the Technical Secretariat agrees. Facility agreements for Schedule 3 facilities and Other Chemical Production Facilities subject to routine inspections are optional. However, the proposed Act creates an expectation that the U.S. Government will conclude facility agreements for such facilities if these facilities request them.

Please note that under the proposed Act, facility owners and operators, occupants, or agents in charge of the facilities must be involved in the negotiations of all required and requested facility agreements to the extent that it is practicable, consistent with U.S. obligations under the CWC. At CMA's request, the Administration is considering changes that will further define the extent to which owners and operators, occupants or agents may be involved in the negotiation of facility agreements.

Fifth, Title IV requires CWC inspectors and accompanying U.S. Government personnel to observe the safety regulations of the inspected facility. The provision on safety regulations expands to U.S. Government personnel the identical obligation for CWC inspection teams contained in the Convention. Title IV also authorizes the U.S. Government to require the provision of samples as mandated by the Convention, but makes clear that the facilities have the final word as to who will take the samples.

Finally, Title IV requires the U.S. Government, to the extent consistent with the CWC, to assist inspected facilities in interacting with the inspection team. This creates a general obligation for the U.S. Government to use its discretionary power under the CWC in support of inspected facilities. However, this does not require the U.S. Government to disregard other CWC obligations and policy considerations.

These, then, constitute the measures the Administration will propose for protecting industry during the implementation of routine inspections. Implementation of the other types of the inspections will follow the same procedures, as appropriate. The major difference will be that the agencies involved will differ, depending on the specific situation. **[II-78B]**

The U.S. Government expects that the vast majority of inspections will be conducted voluntarily. Accordingly, the provisions for doing so have been constructed on this basis. Nevertheless, because the United States must faithfully implement its obligation under the CWC to allow short-notice inspections, the proposed Act also contains a number of legal mechanisms for compelling access where facilities refuse to do so. The basic legal cornerstone for ensuring this is the Title IV provision making unlawful the failure or refusal to permit entry, as well as the disruption, delay or

impediment of an inspection. The CWC allows inspected facilities, particularly during challenge inspections, to take actions to protect sensitive information that could, in effect, "disrupt, delay or impede" an inspection. Accordingly, this provision covers only those actions not permitted by the CWC.

U.S. courts are specifically empowered to enforce this provision by restraining violations and compelling the taking of any action required by the Act or the CWC. Penalties for violations include fines and imprisonment for up to two years. Unlike violations of reporting requirements, fines for this type of violation can be assessed on a daily basis. This is intended to create additional pressure on those who refuse access.

To balance these rather serious penalties, under the proposed Act the U.S. Government also must provide notice and a hearing prior to assessment of the penalty, must take into account factors such as the circumstances of the violation and the violator's ability to pay, and is allowed to modify the penalty. In addition, Title IV provides for judicial review of the penalty. Let me also note that the Administration is considering amendments to the penalties provision that would link the maximum penalty imposed to the type of offense.

Title IV also provides procedures for obtaining search warrants and subpoenas requiring the attendance and testimony of witnesses and the production of information. The warrant procedures are designed to meet the Constitutional requirements for the issuance of warrants on the basis of "administrative probable cause," i.e., the standards for issuing warrants under administrative inspections rather than the standards used for criminal searches. These procedures can also be used to obtain criminal search warrants, however.

Finally, Title IV prohibits courts from issuing injunctions or other orders limiting the ability of the Technical Secretariat to conduct inspections or the U.S. Government to facilitate them. One reason for this prohibition is that injunctions could, even if later lifted, keep the United States from meeting the short deadlines for initiating inspections. **[II-79A]**

This, then, is an overview of the Administration's proposed implementing legislation for the Chemical Weapons Convention. Let me conclude by stressing the following points. As I mentioned at the beginning of my talk, the implementing legislation is evolving and will undoubtedly continue to evolve as it is considered by the Congress. Throughout the drafting process we have done our best to draft provisions that effectively implement the CWC while striking the optimal balance between the various interests involved. The Administration is committed to continuing to work with industry, the Congress, and other affected parties in shaping this legislation. It is our hope that the resulting Act will be one that all participants can agree is reasonable, balanced, and fair, and above all, gets the job done. Thank you.

Next, Mike Walls will discuss the Chemical Manufacturers Association's views on the treaty.

I.8 THE CHEMICAL WEAPONS CONVENTION, THE CHEMICAL INDUSTRY, AND THE CHALLENGE OF IMPLEMENTATION: AN INDUSTRY PERSPECTIVE [II-81A]

Good Afternoon. My name is Mike Walls, and i'm in the Legal Department at the Chemical Manufacturers Association in Washington, D.C.

Before going through some of the challenges the chemical industry faces on implementation of the Chemical Weapons Convention, let me take a moment to comment on the unique relationship the industry has had with the U.S. government throughout the discussions. Our relationship is probably the single best example of government-industry cooperation that I can think of. It has been a productive relationship, and the Convention is a measurably better document because of that relationship. **[II-81B]**

This after I'd like to cover three major items. First, a review of the CMA position on the CWC. Second, a discussion of the major concerns and challenges the chemical industry has had thus far in the implementing process. And finally, I'd like to speak on steps chemical companies can take now to prepare for CWC implementation. These issues help show why the CWC and its implementation in the United States is truly a unique effort in the history of U.S. government regulation. **[II-82A]**

CMA has been involved in advocacy on the CWC since the late 1970's. In all that time, our overriding position was unequivocal support for a ban on the manufacture, use, and storage of chemical weapons. How did we come to this position -- particularly when that position means that commercial facilities will incur yet another regulatory burden as a result?

No commercial chemical company in the United States makes chemical weapons. In addition, the CWC presented an area for strong, positive public leadership by the chemical industry. But most importantly, given the proposals that were being considered, a significantly more restrictive CWC would have resulted if the industry was not involved.

An important point is that throughout the discussions on the CWC, CMA worked hard to coordinate our position with other domestic industry sectors, such as the Synthetic Organic Chemical Manufacturers Association and the Pharmaceutical Research and Manufacturers Association. We worked closely with our foreign counterpart associations in Europe, Japan, Canada, and Australia to develop joint policy positions. **[II-82B]**

CMA's advocacy effort on the CWC was aimed at three principal points. One, support for a ban on CW. Two, minimizing the administrative burden on companies. And three, reducing the potential intrusion into company facilities. On all three counts, I believe we succeeded. Indeed, the processes and procedures being discussed in The Hague suggest that rained inspectors should be able to inspect a facility very quickly, with no disruption to production.

The net result of our efforts? Strong protection for confidential business information. A minimal impact on industry, with little to no disruption of company activities. And an effective and verifiable ban on chemical weapons. **[II-83A]**

There has been a lot of press recently about the chemical attack on the Tokyo subway system. In CMA's view, that tragedy underscores the need for the CWC. Our

job as chemical manufacturers is to preserve legitimate markets for our sensitive products while working with the government to prevent illegal diversions. And it's important to realize that the CWC can be an important tool in controlling diversions. It should do that in two ways. Because the Convention requires the destruction of government CW stockpiles; there will be less opportunity to divert actual weapons agents. Secondly, and perhaps most importantly, the CWC will help establish a mechanism for monitoring the manufacture and transfer of certain precursors. These steps, taken in conjunction with the stewardship practices of the U.S. chemical industry, should help assure that legitimate chemicals are not diverted to illegal weapons production. **[II-83B]**

I'd like to turn now to U. S. implementation of the CWC. My comments relate solely to last year's legislation - not the version which is currently under discussion in the government's interagency working group. As you've already heard, the draft CWC implementing legislation still has a long way to go in Congress.

In general, the draft U. S. implementing legislation recognizes a great deal of industry input, and addresses many of our concerns with previous drafts. There are several areas that merit your particular attention.

The treatment of submissions to the Office of National Authority as exempt from disclosure under the Freedom of Information Act (FOIA) is perhaps the single most significant provision of the legislation, from the industry's perspective. It's significant because it is a totally different approach from that used in most environmental laws, where you have to establish a proprietary interest in the material you submit to the government to gain CBI protection. Under this legislation, you need only submit the material, and it will already be exempt from disclosure, except for those limited purposes related to enforcement of the convention.

The legislation also acknowledges a facility's role in negotiating a facility agreement. Now the provision does not guarantee that the facility must be involved - a facility agreement is after all an agreement between the host country and the OPCW.

Another significant provision places a blanket prohibition on the inspection of certain records, including records of patent data, and health, safety, and environmental matters. This provision should help assure that inspectors don't go on a "fishing expedition" in chemical plants.

The final significant provision is the Congressional declaration of a national interest in minimizing the burden of the CWC on the industry, and on taking competitiveness concerns into account. No other legislation to my knowledge contains such an explicit statement of the importance of the industry. **[II-84A]**

It's probably pretty hard to believe that with implementing legislation that good, the industry would have any concerns about the bill. And it's probably even harder to believe that we have some major concerns about what Congress may do with this bill!

CMA has suggested alternative language to fix each of the problem areas we have identified. We're confident that our alternative language should help assure a more practical, efficient implementation effort.

The major areas CMA has highlighted for additional attention:

Clarifying the definitions and scope of inspections.
Affirmative defenses and the burden of proof on potential defendants.
Assuring the U. S. implementation is no broader than required under the treaty. (i.e., concerns about lowering the declaration thresholds for national aggregate numbers.)
Taking decisions made in The Hague and applying them domestically.
Giving chemical facilities flexibility in obtaining or approving of U. S. observer participation in an inspection.
A clarification that U. S. chemical companies shall participate in the negotiation of a facility agreement, unless the facility opts not to.
Realignment of penalty provisions to apply the harshest penalties to true violations of the Convention's prohibition on chemical weapons.

As you've heard, the implementing legislation will likely be considered by the House and Senate Judiciary Committees. The Judiciary Committees, however, have very little experience with arms control agreements - but they do have experience with little things like civil and criminal penalties for environmental violations. The talks we've had with Congressional staff on the legislation indicates that many of them simply haven't focused on it - and won't until after the April recess. **[II-84B]**

Of course, once the legislative debate is over, we'll have to contend with a new regulatory system. That system will be administered by the Department of Commerce's Bureau of Export Administration. The new regulations will be the opportunity for the Clinton Administration to demonstrate its commitment to a "reinvented" government. We hope that the Department of Commerce will think outside the box, and look for innovative ways of doing the government's business. CMA has commended the Department of Commerce for reorganizing the Bureau of Export Administration to deal with CWC implementation. At this point, we are somewhat optimistic that the new organization can craft an efficient regulatory mechanism.

There is one area of BXA's work that you have a particular interest in. BXA is currently in the process of trying to make the U. S. declaration formats more user friendly. This effort means a great deal for reducing the potential burden of the CWC to the absolute minimum. In a test last year of the draft declaration formats as they were then available, 25 CMA member companies reported no significant problem in completing the forms. If BXA is successful, we should have a CWC regulatory program that is a model of good government and reasonable regulation. **[II-85A]**

There are a number of international issues which have potential implications for the chemical industry. Of primary interest to the U. S. industry are the "exemptions" from declarations, both those required under the Convention and those required by an efficient system. For example, what are the hydrocarbon facilities exempted from the CWC? What are the thresholds for low concentrations exceptions? Mention June 26-27 meeting in The Hague - opportunity to participate in the discussion.

Another concern is that the OPCW program achieve a "level playing field." Our industry's foreign competition may well obtain a competitive benefit if their national CWC implementation falls far short of the burden and intrusion placed on U. S. companies. Multinational companies could be forced to comply with far different sets of national regulations. National implementing regulations should be harmonized now, before the CWC is broadly applied. We should not lose this important chance to harmonize national

law. And more importantly, consistency in national implementation ultimately means improved verification and confidence in the Convention to prevent illegal uses of chemicals. **[II-85B]**

There are a number of things that chemical companies can start doing now to prepare for CWC implementation. These actions can help assure that your company fully complies with the CWC.

First, consider collecting and organizing now the data likely to be required for reports to the national authority.

Check the type and amount of data likely to be required by consulting the Annexes in the CWC, and the draft declaration formats. Understand that the format may still change, but you'll be in the ballpark.

Consider whether or not your company will report as a single corporate entity or as individual facilities. The regulations may affect this option, but there may be efficiencies for some companies in considering how they report.

Begin to establish a CWC compliance program within the company. For many firms, this will probably be an extension of the corporate compliance program already in place.

Consider also what are your most sensitive proprietary information needs, and how you will minimize losses of confidential information in the declaration process.

Schedule 2 and Schedule 3 facilities should also begin to prepare for routine inspections.

You can start the process by considering the elements which might be included in a facility agreement, and how those elements apply to your facility. The OPCW is working on a draft facility agreement document. Remember also that the facility agreement is not a contract as we usually use that term--it is more in the nature of a guideline. The CMA Work Group will be working on facility agreements over the next few months.

You may want to consider separating records for covered facilities from those of other plants in a plant site which involve products not related to the CWC. This should help minimize intrusion into your corporate records.

Develop a list of information likely to be disclosed in a routine inspection, and make sure that the U. S. government - both before and during the inspection - knows that you expect this information to be protected from disclosure during the inspection.

Although we hope that most commercial facilities will never be the subject of a challenge inspection, I also suggest that you at least review the challenge inspection procedures. It is important to realize that you have rights in managed access.

There is some time still available to accomplish these tasks. Most facilities probably won't be inspected for at least two years after entry-into-force. The OPCW won't have the resources to support very frequent inspections. An the Convention itself places an annual quotas on inspections.

I also recommend that you identify and communicate potential problem areas to the U. S. Government and the OPCW. Both organizations are very receptive to input from industry.

Finally, help us help the industry. **[II-86]**

Encourage your trade association to participate in CMA's Chemical Weapons Work Group. You can contact me by phone at 202-887-1170.

Participate in the discussions by providing comment on the systems being developed for declarations and inspections, and June 26-27 meeting in The Hague.

Communicate any special implementation problems to CMA, so that we can assure that they are taken into account in the future implementation effort.

I hope I've been able to give you a good idea of why the industry has been involved in the CWC, what are some of the challenges facing the industry, and what we can do about them.

I'd be happy to answer any questions you might have.

ANNEX II

PRESENTATION SLIDES FOR "CWC INDUSTRY OUTREACH III"

TABLE OF CONTENTS

CHEMICAL WEAPONS CONVENTION
AND ITS IMPACT ON THE
U.S. CHEMICAL INDUSTRY

SPONSORED BY:
Arms Control and Disarmament Agency
&
Department of Commerce

SEMINAR OBJECTIVES

- Familiarize Industry with the CWC
- Inform Industry of CWC rights and obligations
- Let Industry know timing of treaty implementation
- Suggest ways to prepare for the CWC
- Identify and respond to Industry concerns and elicit Industry comments

SCHEDULE

8:00 - 8:30	Registration	EAI
8:30 - 8:35	Welcome	ACDA
8:35 - 9:20	CWC Overview	ACDA
9:20 - 9:30	Role of BXA in Implementation	DOC
9:30 - 10:15	Policies for Declarations	DOC
10:15 - 10:30	Break	
10:30 - 11:30	Examples of Declarations	EAI
11:30 - 12:30	Lunch	
12:30 - 1:15	CWC Inspections	EAI
1:15 - 1:45	Implementing Legislation	ACDA/GC
1:45 - 2:15	Industry Perspective	CMA
2:15 - 2:30	Break	
2:30 - 4:00	Panel Discussions: Issues & Questions	ACDA, DOC, CMA, EAI

CWC OVERVIEW

Richard D'Andrea
ACDA
(202) 647-5091

CWC STRUCTURE

- Preamble - CWC Object and Purpose
- Articles - General Provisions (contained in 24 articles)
- Annexes - Specific Details concerning
  - Scheduled chemicals
  - Verification
  - Confidentiality

CWC PREAMBLE

- "...achieve effective progress towards...elimination of all types of weapons of mass destruction,...
- exclude...use of chemical weapons...
- promote free trade in chemicals...for purposes not prohibited under the Convention...to enhance the economic and technological development of all States-Parties,..."

ARTICLE 1 - GENERAL OBLIGATIONS

A Party to the CWC undertakes never to:

- Develop, produce, acquire, stockpile, retain, or transfer chemical weapons (CW)
- Use CW
- Prepare militarily to use CW
- Assist, encourage or induce others in prohibited activities

ARTICLE 1 - GENERAL OBLIGATIONS (CONT)

A Party agrees to:

- Destroy CW it possesses
- Destroy CW production facilities
- Not use riot control agents as a method of warfare

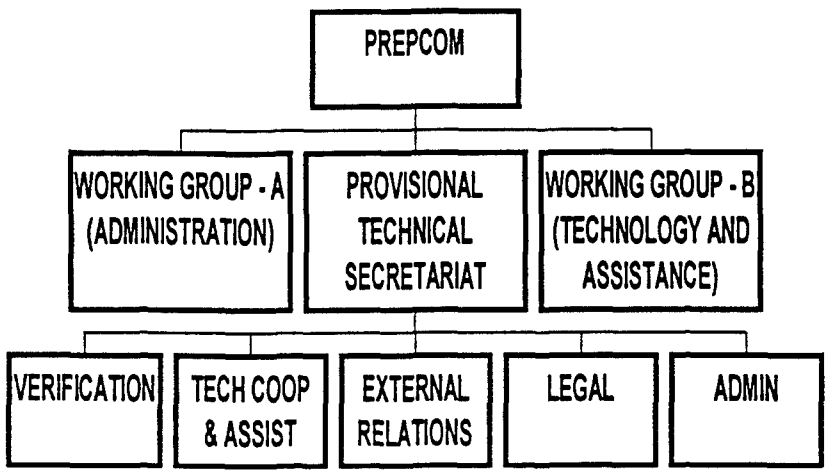
CW DEFINITION

- Toxic chemicals and their precursors, except where intended for purposes not prohibited...
- Munitions and devices, specifically designed to cause death or other harm through the toxic properties of those chemicals (above)...
- Any equipment specifically designed for use directly in connection with the employment of munitions and devices (above).

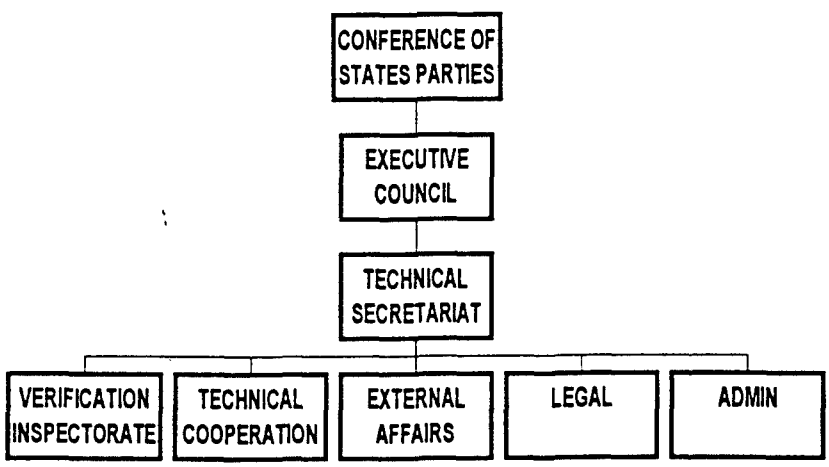
DISCRETE ORGANIC CHEMICALS

Compounds of carbon except for its oxides, sulfides and metal carbonates, identifiable by chemical name, by structural formula, if known, and by Chemical Abstracts Service registry number, if assigned.

PREPARATORY COMMISSION (PREPCOM)



Organization for the Prohibition of Chemical Weapons (OPCW)



OPCW DUTIES

- Collect and analyze data submissions
- Verify compliance/conduct inspections
- Establish and maintain high professional standards
- Protect Confidential Business Information
- Review requests for challenge inspections
- Review inspection results
- Clarify ambiguities and resolve disputes

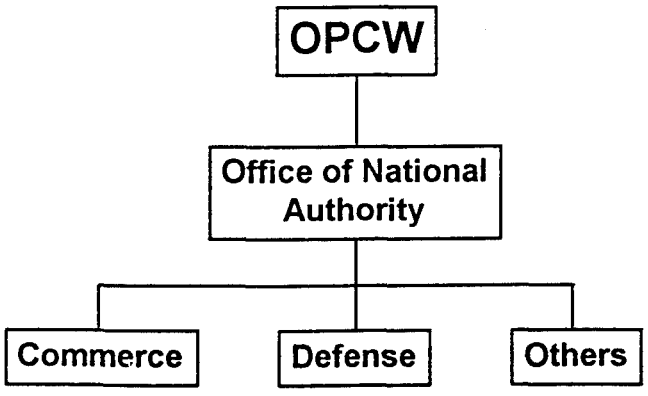
STATES PARTIES' OBLIGATIONS

- No production, possession, transfer or use
- Declare and destroy existing CW stocks
- Comply with reporting and verification
- Designate National Authority
- Provide financial support to OPCW
- Limit trade to non-States Parties
- Promote trade with States Parties
- Enact implementing legislation
- Provide criminal/civil penalties for violations

CWC IMPLEMENTATION PROCESS

- Secure Senate advice and consent to ratification
- Ratify and deposit with United Nations
- Enact implementing legislation
- Promulgate regulations, procedures, etc.
- Organize National Authority and CWC compliance infrastructure
- Collect CWC data and assemble U. S. declaration
- Interface with OPCW and other States Parties

OPCW - NATIONAL AUTHORITY INTERFACE*

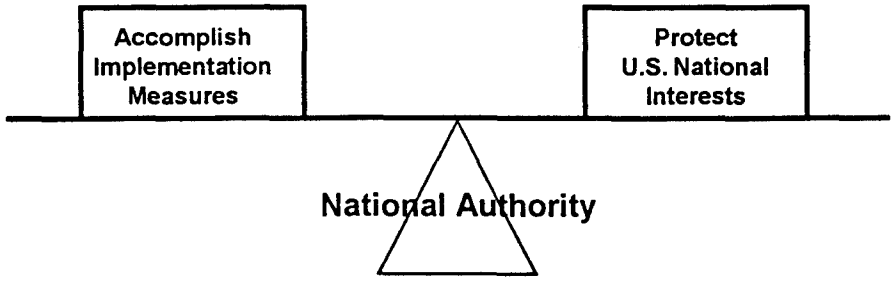


* Lines indicate communication/coordination linkage

NATIONAL AUTHORITY FUNCTIONS

- U.S. Focal Point
  - Communicate with OPCW and States Parties
  - Compile and submit Declarations
  - Negotiate Facility Agreements
  - Facilitate Inspection Coordination and Reporting
  - Resolve questions and ambiguities

OVERVIEW OF U.S. GOVERNMENT ROLE



- Legislation
- Compliance with provisions
- Accuracy of reporting

- CBI
- Minimize intrusiveness
- National security
- Constitutional rights

OPTIONS FOR U.S. GOVERNMENT SUPPORT TO INDUSTRY

- Guidance on:
  - Inspection preparation
  - CBI measures
  - Minimizing intrusiveness
- Guidance documents for:
  - Declarations
  - Reporting
- Inspection preparation after notification

OPTIONS FOR U.S. GOVERNMENT SUPPORT TO INDUSTRY (CONT)

- Escorts
- Guidance on:
  - Challenge inspection
  - Managed access
- Pre-inspection facility and data review
- Facility Agreements

THE OBJECTIVE

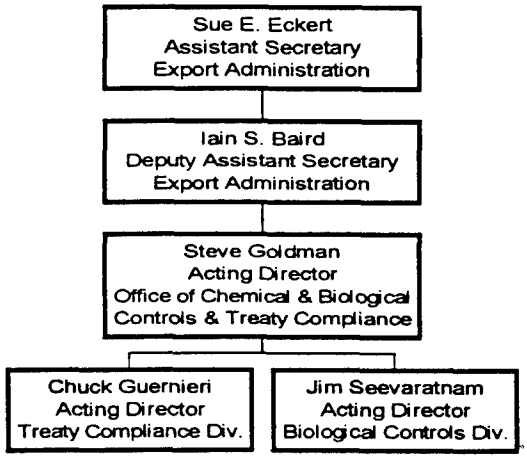
To eliminate chemical warfare and rid the world of chemical weapons.

THE ROLE OF THE DEPARTMENT OF COMMERCE IN IMPLEMENTING THE CHEMICAL WEAPONS CONVENTION

Gerald P. Ziemba

Treaty Compliance Division,
Office of Chemical and Biological Controls
and Treaty Compliance

BUREAU OF EXPORT ADMINISTRATION
EXPORT ADMINISTRATION



Call: (202) 482-4811

THE ROLE OF COMMERCE IN IMPLEMENTING THE CWC

- Educating private industry about the CWC
- With other U. S. Government Agencies, developing CWC implementing legislation
- Promulgating CWC regulations
- Gathering, compiling, and validating industry declarations
- Assisting industry in preparing for and hosting CWC inspections
- Representing industry interests at U. S. interagency and international fora

STATUS OF BXA'S CURRENT CWC IMPLEMENTATION ACTIVITIES

- In coordination with ACDA, conducting industry outreach efforts
- Developing CWC regulations to specify industry obligations associated with the CWC
- Developing CWC declaration packages

STATUS OF BXA'S CURRENT CWC IMPLEMENTATION ACTIVITIES

- In coordination with ACDA, conducting industry outreach efforts
- Developing CWC regulations to specify industry obligations associated with the CWC
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Policies for Declarations

DISCUSSION TOPICS

- General Requirements for Declarations
- Overlap of USG Regulations
- Chemicals and Facilities
- Activities
- Reporting Thresholds
- Commerce Regulations
- Timing of Reports

OTHER REGULATORY REQUIREMENTS

International Trade Commission	• Synthetic Organic Chemical Database
Environmental Protection Agency	• Chemicals Update System • PENTA Database • FIFRA Section 7 Tracking System & Pesticides Production Information System • Toxic Chemical Release (TRI) Inventory
Commerce Department	• Export Administration • Shipper's Export Declarations • Current Industrial Reports, Inorganic Chemicals

EXAMPLES OF DISCRETE ORGANIC CHEMICALS

1. Acetic Acid $CH_3 CO_2 H$
2. Methanol $CH_3 OH$
3. Propane $CH_3 CH_2 CH_3$
4. Perfluoroethane $CF_3 CF_3$

Excluded: "Compounds of Carbon: its Oxides, Sulfides, and Metal Carbonates."

Examples:

1. Oxides of Carbon: Carbon Dioxide CO_2; Carbon Monoxide CO
2. Sulfide of Carbon: Carbon Disulfide CS_2
3. Metal Carbonates: Calcium Carbonate $Ca CO_3$
   Magnesium Carbonate $Mg CO_3$

DEFINITION OF DISCRETE ORGANIC CHEMICALS

Any Chemical belonging to the class of chemical compounds consisting of all compounds of carbon except for its oxides, sulfides and metal carbonates, [and] identifiable by chemical name.

"PSF"

Any Discrete Organic Chemical containing the elements phosphorus, sulfur or fluorine.

SCHEDULE 3

- Toxic Chemicals and Precursors
- Used in Commercially Large Volumes
- 100-200 Facilities

SCHEDULE 2

- Potential Chemical Weapons Agents
- Toxic Chemicals and Precursors
- Used Commercially in Limited Quantities
- 50-100 Facilities

SCHEDULE 1

- Most Toxic Chemical Warfare Agents
- Little or No Commercial Use
- About 10 Facilities

REPORTABLE ACTIVITIES

- Production - formation through a chemical reaction
- Processing - a physical process, such as formulation, extraction and purification, in which a chemical is not converted into another chemical
- Consumption - conversion into another chemical via a chemical reaction

PLANT SITES AND PLANTS

- Plant Site - the local integration of one or more plants
- Plant - a relatively self-contained area, structure or building

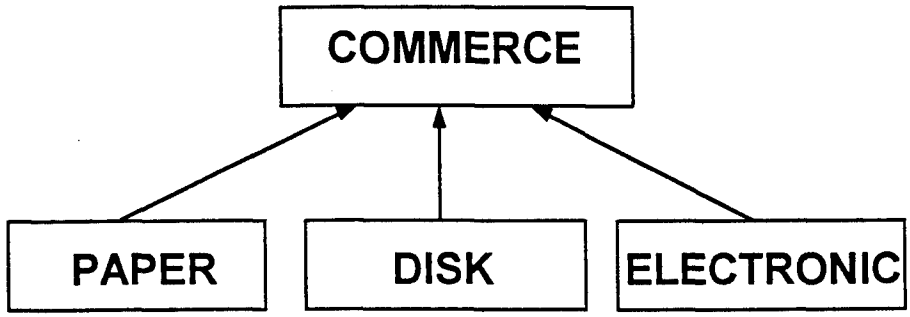
REPORTABLE ACTIVITIES

	DOCs	Sch 3	Sch 2	Sch 1
Production	x	x	x	x
Processing			x	x
Consumption			x	x
Importation		x	x	x
Exportation		x	x	x
Acquisition				x

REPORTING THRESHOLDS

Discrete Organic Chemicals	>200 Metric Tons	Aggregate	Plant Site
PSF	>30 Metric Tons	Specific	Plant
Schedule 3	>30 Metric Tons	Specific	Plant Site
Schedule 2A	>100 KG	Amiton family or PFIB	Plant
	>1 KG	BZ	Plant
Schedule 2B	>1 Metric Ton	Specific	Plant
Schedule 1	>100 Grams	Aggregate	Plant Site

DECLARATION SUBMISSION



DECLARATION DEADLINES

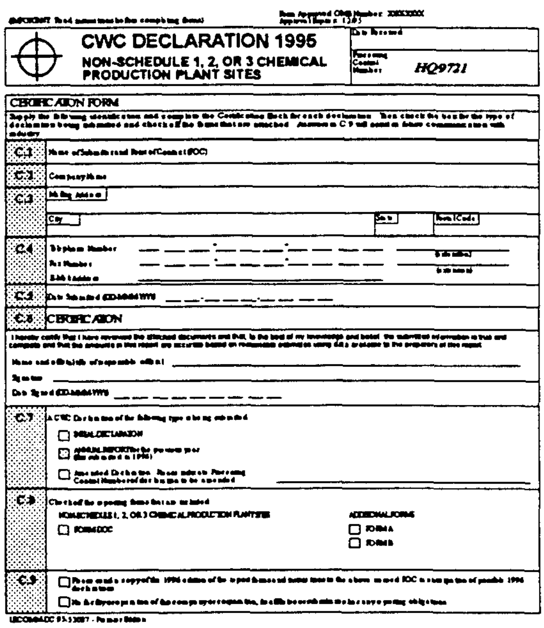
	TO: COMMERCE	TO: OPCW
Initial Declarations	60-90 days before EIF	30 days after EIF
Schedule 1 (anticipated)	150 days before Year end	90 days before Year end
Schedule 2 & 3 (anticipated)	120 days before Year end	60 days before Year end
Annual Declarations	30 days after Year end	90 days after Year end

Bureau of Export Administration

(202) 482-4811

EXAMPLES OF DATA DECLARATIONS & REPORTING

Gordon Burck
EAI Corporation
(703) 739-1033



CWC DECLARATION 1995

NON-SCHEDULE 1, 2, OR 3 CHEMICAL PRODUCTION PLANT SITES

HQ9721

CERTIFICATION FORM

Certification Form

DRAFT

GENERAL POINTS

- Calendar Years
- Metric Weights
- Facility Numbers
- Mixed Plants and Plant Sites
- Length of submissions

DISCRETE ORGANIC CHEMICALS

- Basic Definition is very broad
- Chemicals Excluded in Treaty
- Facilities Excluded in Treaty

PROPOSED DOC EXCLUSIONS

- Polymers
- Metal Carbides
- Fermentation
- Complex Mixtures

DISCRETE ORGANIC CHEMICAL REPORTING

- Production by Reaction
- Low Concentration Exclusion

DETERMINATION OF REPORTABLE IMPURITIES AND BYPRODUCTS

Impurities

- Remain in mixture with desired product
- Exceed low concentration guidelines

Byproducts

- Separated from the desired product

DOC REPORTING DETAILS

- Determination of Plant Site
- Threshold
- Declaration Ranges

EXAMPLE 1

If Entry-into-Force is in 1995, what declaration, if any, is required for a U. S. facility producing in 1994:

Trinitrotoluene	**190 metric tonnes**
Methanol	**25 metric tonnes**

SOLUTION 1

If Entry-into-Force is in 1995, what declaration, if any, is required for a U. S. facility producing in 1994:

Trinitrotoluene	**190 metric tonnes**
Methanol	**25 metric tonnes**

- **Initial Declaration for 200-1000 metric tonnes of Discrete Organic Chemicals**

EXAMPLE 2

If Entry-into-Force is in 1995, what declaration, if any, is required for a U. S. facility producing in 1994:

Monoethanolamine	190 metric tonnes
Triethanolamine	15 metric tonnes

SOLUTION 2

If Entry-into-Force is in 1995, what declaration if any, is required for a U. S. facility producing in 1994:

Monoethanolamine	190 metric tonnes
Triethanolamine	15 metric tonnes

- No declaration

PSF CHEMICALS

- **Discrete Organic Chemicals containing P, S, and/or F**
- **Plant Declaration and Reporting Thresholds**

EXAMPLE 3

If Entry-into-Force is in 1995, what declaration, if any, is required for a U. S. facility producing in 1994:

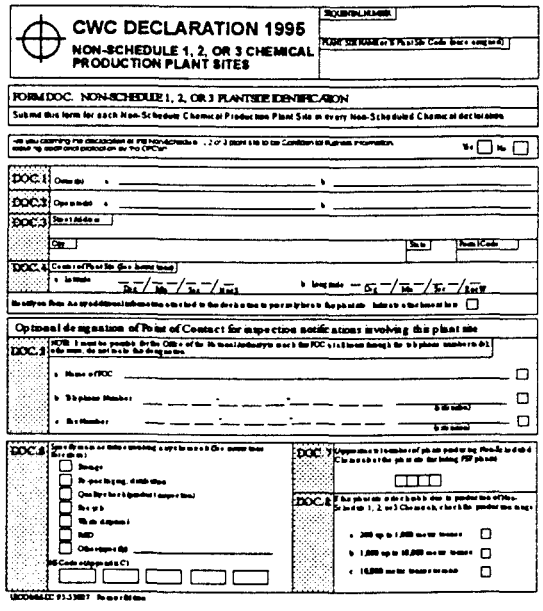
- **40 metric tonnes of a phosphate ester**
- **10 metric tonnes of an alcohol precursor**

SOLUTION 3

If Entry-into-Force is in 1995, what declaration, if any, is required for a U. S. facility producing in 1994:

- **40 tonnes of a phosphate ester**
- **10 tonnes of an alcohol precursor**

- **Initial Declaration for 30-200 metric tonnes of PSF Chemicals based on production of at least 30 metric tonnes of the single PSF chemical in a single plant.**



CWC DECLARATION 1995

NON-SCHEDULE 1, 2, OR 3 CHEMICAL PRODUCTION PLANT SITES

FORM DOC. NON-SCHEDULE 1, 2, OR 3 PLANTSITE IDENTIFICATION

Submit this form for each Non-Schedule Chemical Production Plant Site in every Non-Scheduled Chemical declaration.

DOC. 1

DOC. 2

DOC. 3

DOC. 4

Optional designation of Point of Contact for inspection notifications involving this plant site

DOC. 5

DOC. 6

DOC. 7

DOC. 8

DOC. 9

DOC. A

DOC Form (page 1)

DRAFT

CWC DECLARATION 1995
NON-SCHEDULE 1, 2, OR 3 CHEMICAL PRODUCTION PLANT SITES

FORM DOC. NON-SCHEDULE 1, 2, OR 3 PLANTSITE IDENTIFICATION (CONTINUED)

Submit this form for each Non-Scheduled Chemical Production Plant Site, if applicable.

If this plant site is declarable due to the production of a Non-Schedule 1, 2, or 3 Discrete Organic Chemical that contains phosphorus, sulfur or fluorine (a "PSF" chemical) at one or more constituent plants, supply the name and check the production range of each PSF plant.

DOC.9. ___ a. Name of Plant ________
b. 30 up to 200 metric tonnes ☐ c. 200 up to 1000 metric tonnes ☐ d. 1000 up to 10,000 metric tonnes ☐ e. 10,000 metric tonnes or more ☐

DOC.9. ___ a. Name of Plant ________
b. 30 up to 200 metric tonnes ☐ c. 200 up to 1000 metric tonnes ☐ d. 1000 up to 10,000 metric tonnes ☐ e. 10,000 metric tonnes or more ☐

DOC.9. ___ a. Name of Plant ________
b. 30 up to 200 metric tonnes ☐ c. 200 up to 1000 metric tonnes ☐ d. 1000 up to 10,000 metric tonnes ☐ e. 10,000 metric tonnes or more ☐

DOC.9. ___ a. Name of Plant ________
b. 30 up to 200 metric tonnes ☐ c. 200 up to 1000 metric tonnes ☐ d. 1000 up to 10,000 metric tonnes ☐ e. 10,000 metric tonnes or more ☐

DOC.9. ___ a. Name of Plant ________
b. 30 up to 200 metric tonnes ☐ c. 200 up to 1000 metric tonnes ☐ d. 1000 up to 10,000 metric tonnes ☐ e. 10,000 metric tonnes or more ☐

DOC.9. ___ a. Name of Plant ________
b. 30 up to 200 metric tonnes ☐ c. 200 up to 1000 metric tonnes ☐ d. 1000 up to 10,000 metric tonnes ☐ e. 10,000 metric tonnes or more ☐

If additional pages of this second page of Form DOC for this plant site are attached, indicate the total number of pages as follows: page ___ of ___ (e.g., "page 2 of 6.")

USCOMM-DC 95-33007 - Former Edition

PSF CHEMICALS

DRAFT

SCHEDULE 3

- Threshold
- Most Emphasis on Plant Site
- Purposes of Production
- Foreign Trade and Traders
- Anticipated Production
- Production for Chemical Weapons Purposes

EXAMPLE 4

If Entry-into-Force is in 1995, what declaration, if any, is required for a U. S. facility producing in 1994:

- **50 metric tonnes of sulfur monochloride**
- **20 metric tonnes of sulfur dichloride**

SOLUTION 4

If Entry-into-Force is in 1995, what declaration, if any, is required for a U. S. facility producing in 1994:
- **50 metric tonnes of sulfur monochloride**
- **20 metric tonnes of sulfur dichloride**

- **Initial Declaration of 50 metric tonnes of $S_2 Cl_2$**

EXAMPLE 5

An entrepreneur plans to enter the organophosphate pesticide business and has begun construction of a plant that will produce 50 metric tonnes of phosphorous oxychloride each year beginning in 1997. If EIF occurs in 1995, what are the first 2 reports?

SOLUTION 5

An entrepreneur plans to enter the organophosphate pesticide business and has begun construction of a plant that will produce 50 metric tonnes of phosphorous oxychloride each year beginning in 1997. If EIF occurs in 1995, what are the first 2 reports?

- Anticipated Activities report in Fall 1996 on anticipated $POCl_3$ production in 1997
- Annual report for 1996 in January or early 1997 on the $POCl_3$ production plant

SCHEDULE 2

- More Detail
- Broadly Defined Families
- Initial Declaration and Annual Reports

SCHEDULE 2 (CONT)

- Anticipated Activity
- Historical Years
- Plant Reporting

SCHEDULE 2 (CONT)

- Consumption
- Processing
- Reporting on Formulations

SCHEDULE 2 (CONT)

- Sequential Processing
- Capacity
- Dedicated or Multipurpose
- Purposes of Activities
- Disposition
  - Domestic Purposes
  - Trade Amounts

PLANT INSPECTIONS

Michael Moodie
CBACI
(703) 739-1033

VERIFICATION: KEY TO ENSURING COMPLIANCE

- Right to inspect declared sites
- Right to inspect challenged sites
- Mandate to verify compliance
  - Least intrusive manner
- Right of industry to protect CBI

ACTIVITIES PRIOR TO INSPECTIONS

- Industry
  - Prepares declaration on:
    - Chemicals
    - Operations
    - History
  - Submits declarations to National Authority

ACTIVITIES PRIOR TO INSPECTIONS (CONT)

- National Authority
  - Aggregates Industry data
  - Submits data to Technical Secretariat on:
    - Industry
    - Government
    - Other

DRAFT FACILITY AGREEMENT

- Prior to/during initial visit/inspection
- Negotiate:
  - Where inspectors may go
  - Records for review
  - Sampling locations
  - Plant support services to inspection team

PLANT INSPECTION: DECLARED SCHEDULE 2 FACILITY

- 48 hour notification of inspection
- Interfaces with National Authority representative
- Prepares locations for inspection
  - Reviews areas of CBI concern
  - Sets up support system for inspectors
  - Identifies escorts

PLANT INSPECTION: NATIONAL AUTHORITY

- Optional functions:
  - Meets inspection team at U. S. Point of Entry
  - Escorts inspection team to plant site gate
  - Remains at plant site

INSPECTION TEAM

- From Technical Secretariat
- International technically trained representatives
- Citizens of States Parties

INSPECTION TEAM (CONT)

- Studied technology of your plant site operations through:
  - Declarations
  - Public literature (SRI Reports)
  - Prior inspections
- Versed in production of Schedule 1 chemicals

PLANT SITE SUPPLIED SUPPORT SYSTEM

- Operations room
- Escorts
- Briefing
  - Safety Practices
  - Plant Site Layout
- Review Facility Agreement

PLANT INSPECTION TEAM

- Enters plant site
- States purpose of inspection
- Introduces inspection team
- Presents equipment

INSPECTION TEAM LEADER'S BRIEFING

- Authority and purpose
- Team composition
- General inspection plan
- Proposed time table
- Records request
- Sampling intentions
- Analytical intentions

INSPECTION TEAM COMPOSITION

1	Team leader
4	Engineers or chemists
1	Analytical chemist
1-2	Technical assistants
2	Interpreters
9 - 10	Total

INSPECTION TEAM EQUIPMENT SYSTEM

- Detection equipment
- Safety equipment
- Sampling and measuring equipment
- Communications equipment
- Admin support equipment

PROBABLE AREAS FOR INSPECTION

- Feed chemicals - Supply systems
- Pre-reactor equipment
- Flow lines - Valves - Meters
- Reactors - External systems
- Discharge lines - Product or intermediate

PROBABLE AREAS FOR INSPECTION (CONT)

- Product storage and packaging
- Control equipment
- Waste and effluent handling systems
- Handling of non-specification product

EXAMPLE SAMPLING POINTS

- Storage
- Reactors
- Product recovery
- Waste systems
- Air, soil, wipe samples

SAMPLE ANALYSIS OPTIONS

- On-site using OPCW equipment
- On-site using site equipment
- Off-site

RECORDS REVIEW

- Process
- Product
- Materials

PERSONNEL CONTACTS

- Management
- Workers

PHOTOGRAPHS

- Instant camera
- Two prints
- Taken by site photographer

INSPECTION DURATIONS

- Schedule 2 Chemicals 96 Hours
- Schedule 3 Chemicals 24 Hours
- Other Chemicals 24 Hours
- Subject to extension by mutual agreement

INSPECTION TEAM REPORT

- Preliminary
  - At site
  - Anomalies recorded
  - Signed by team leader and National Authority escort

INSPECTION TEAM REPORT (CONT)

- Final draft
  - Provided to State Party within 10 days for comments

- Final
  - Annexed comments by States Parties
  - Submitted to Director-General within 30 days

SCHEDULE 2 CHEMICALS PLANT INSPECTION SUMMARY

- Plant site submits declaration
- Inspectorate selects site for inspection
- Plant receives inspection team at site
  - Briefing
- Team leader explains purpose of inspection

SCHEDULE 2 CHEMICALS PLANT INSPECTION SUMMARY (CONT)

- Team sub-groups
- Review records
  - Review process and equipment
  - Take and analyze samples
- Team provides preliminary report and departs
- Team provides final report for comments
- Final report given to Director-General

SCHEDULE 3 CHEMICALS AND OTHER FACILITIES

- Inspection procedures similar to Schedule 2
- Production only
- Shorter inspection duration

DECLARATIONS AND VERIFICATION

	SCHEDULE 2	SCHEDULE 3
DECLARATIONS	Production Consumption Processing	Production
THRESHOLDS		
Declarations	1 Tonne	30 Tonnes
Verification	10 Tonnes	200 Tonnes

SELECTION FOR INSPECTION

- Random selection basis
  - Geographic distribution
  - Concern over specific chemicals
  - Overall characteristics of site
  - Nature of activities at site

PLANT INSPECTION

- No requirement for facility agreement
- Advance notice
  - Schedule 3 Plants: 120 Hours
  - Schedule 2 Plants: 48 Hours
- Inspection duration
  - Schedule 3 Plants: 24 Hours
  - Schedule 2 Plants: 96 Hours

PLANT INSPECTION (CONT)

- Focus on Schedule 3 facility
- Similar procedures as for Schedule 2 Plants, but compressed time for:
  - Sampling
  - Records review
  - Analysis
  - Outbriefing
- Final report same as for Schedule 2 Plants

SUMMARY

- Chemical site facilities subject to inspection
- Selection based on declaration and perceived threat to convention
- Essentially, all chemically related sites eligible
- Inspectors may
  - Check records
  - Check equipment
  - Take samples
- Reports on findings to Secretariat and you

CHALLENGE INSPECTIONS

PURPOSE

- Unresolved anomalies after routine inspection
- Intelligence reports of violations/non-compliance
- Political

MANAGED ACCESS

- Modifications to Inspection plan proposed by inspected State Party
  - To protect sensitive areas, equipment and information NOT RELATED TO THE CWC
  - Modifications may be proposed at any time prior to or during an inspection

MANAGED ACCESS (CONT)

- Modification measures may include:
  - Removal of sensitive papers from offices
  - Shrouding of equipment
  - Restrictions on taking and/or analyzing samples

MANAGED ACCESS (CONT)

- Alternatives to initial inspection proposals
  - Attempt to satisfy inspectors by other means
  - Limited visual access
  - Random selected access
  - Sampling at alternative location
  - Controlled by meaningful analysis on site

CBI

PROTECTION OF CONFIDENTIAL BUSINESS INFORMATION

INDUSTRY EFFORTS TO PROTECT CBI

- Inputs from Chemical Associations
  - Australia
  - Europe
  - Japan
  - U.S.
- Interaction with negotiators
- Most Industry recommendations accepted
- Article VIII and Expert Working Groups

INDUSTRY CONCERNS

- Technology
  - Non-patented know-how
  - Special Equipment
  - Research in progress
  - Pilot plants
  - Key samples

INDUSTRY CONCERNS (CONT)

- Business
  - Costs
  - Marketing plans
  - Customer lists
  - Supplier lists
  - Confidential/new use of products

INDUSTRY CONCERNS (CONT)

- Personnel
- Others

PROPOSED INSPECTION REGIME

- International Inspectorate
- Multi-national team
- Accountable to international organization
  - Laws to be developed

HANDLING OF CONFIDENTIAL INFORMATION

- Minimum information to comply with treaty
- Highest standards of integrity for all staff
- Specify precise information accessibility
- Specify chain of accountability

HANDLING OF CONFIDENTIAL INFORMATION (CONT)

- Determination of designated CBI by National Authority
- Secure storage of data
- Data management via one-way computerized system

PERSONNEL

- Formal position description for scope of access to data
- Restrictions on disclosure during employment
- Restrictions on disclosure for 5 years after employment
- Penalties for disclosure

PERSONNEL (CONT)

- Notification to State Party of designated employees and inspectors
  - State Party right to deny personnel access to their confidential information
  - State Party right to reject inspectors

PLANT INSPECTIONS

- Conduct in least intrusive manner
- Protection of sensitive information
  - Managed access
  - Shrouding/masking
  - Shut down control panels

PLANT INSPECTION DATA

- Records review
  - Key data stored on-site
- Samples
  - Analyzed on-site
  - Removal under coded control
- Photographs
  - Only when necessary
- Reports
  - Limited access on need to know basis

BREACHES OF CONFIDENTIALITY

- Investigation by Director-General
- Imposition of punitive measures
- Cooperation of States Parties
- Disputes settled by Commission

PROTECTION OF CBI

- Your responsibilities
  - Planning
  - Training
  - "Evergreen" Identification
  - Management concern/commitment

SENTIMENTS OF A PLANT MANAGER CONCERNING CHEMICAL WEAPONS CONVENTION INSPECTIONS

"I would more than cooperate with anything that the inspectors request, as long as it is reasonable, does not disrupt operations, present a safety hazard or risk, or compromise CBI. I would like them to finish their job as soon as possible and leave."

IMPLEMENTING LEGISLATION AND OTHER LEGAL ISSUES

Peter Mason
ACDA, General Counsel

THE PROPOSED "CHEMICAL WEAPONS CONVENTION ACT OF 1995"

- Six Miscellaneous Sections
- Title I — National Authority
- Title II — Applications of Convention Prohibitions to Natural and Legal Persons
- Title III — Declarations by Chemical and Other Industries
- Title IV — Inspections

SIX MISCELLANEOUS SECTIONS

Short Title

Table of Contents

* Congressional Findings

* Congressional Declarations

* Definitions

Severability

TITLE I: NATIONAL AUTHORITY

- CWC Inter-Agency Working Group
- Office of National Authority

TITLE II: APPLICATION OF CONVENTION PROHIBITIONS TO NATURAL AND LEGAL PERSONS

- Criminal Prohibitions and Penalties Regarding:
  - Knowing development, production, other acquisition, stockpiling, retention, direct or indirect transfer, use, ownership or possession of chemical weapons by individuals or companies
- Assistance, encouragement or inducement of any person to engage in these activities
- Attempt or conspiracy to engage in these activities

TITLE II: APPLICATION OF CONVENTION PROHIBITIONS TO NATURAL AND LEGAL PERSONS (CONT)

- Use of toxic chemicals for peaceful purposes specifically allowed under CWC
- Prohibitions with regard to Schedule 1 and 2 chemicals

TITLE III: DECLARATIONS BY CHEMICAL AND OTHER INDUSTRIES

- Industry required to provide declarations under the CWC
- Penalties for failure to provide information
- Coordination among U.S. Government agencies required

TITLE III: DECLARATIONS BY CHEMICAL AND OTHER INDUSTRIES (CONT)

- Information and materials from declarations and inspections protected from FOIA disclosures
- Disclosure allowed to:
  - OPCW and States Parties
  - Appropriate Congressional Committees
  - For law enforcement purposes
  - If determined to be in the national interest

TITLE III: DECLARATIONS BY CHEMICAL AND OTHER INDUSTRIES (CONT)

- Criminal penalties for unauthorized disclosure
  - Applicable to international inspectors

TITLE IV: INSPECTIONS

- Domestic legal framework for inspections
- Legal mechanisms for compelling access when consent denied

DOMESTIC LEGAL FRAMEWORK FOR INSPECTIONS

- Authority to inspect
- Protections in addition to CWC
  - Notice
  - Timeframes
  - Scope of inspections
  - Facility agreements
  - Sampling and safety regulations
  - U.S. Government support

LEGAL MECHANISMS

- Penalties for refusal to allow or interference with inspections
- Search warrants and subpoenas
- Other legal mechanisms

CONCLUSION

- Proposed Act is part of an ongoing process
- U.S. Government will continue to strive to make the proposed Act reasonable, balanced, and fair

Chemical Weapons Convention, The Chemical Industry, and the Challenge of Implementation:

An Industry Perspective

Mr. Michael Walls
Chemical Manufacturers Association
(202) 887-1170

OVERVIEW

CWC--Unique Regulatory Effort

- The Chemical industry position on the CWC
- Major Industry concerns in CWC implementation
- Preparing now for CWC implementation

THE INDUSTRY POSITION ON THE CWC

- Chemical industry doesn't make CW
- Unequivocal support for a CWC ban
- Unacceptable alternatives if industry did not participate

INDUSTRY'S ADVOCACY GOALS ON THE CWC

- Support for a global CW ban
- Minimize administrative burden and intrusiveness of CWC on chemical companies

TOKYO SUBWAY INCIDENT

- Tragedy underscores the need for the CWC
- CWC a significant tool in controlling diversions
  - Requires destruction of government CW stocks
  - Establishes a mechanism for monitoring transfers of precursors

U.S. CWC IMPLEMENTING LEGISLATION

- Generally reflects industry input and interests
- Addresses industry concerns
  - Exemption from FOIA disclosure
  - Exclusions for certain record inspections
  - Facility agreements
  - Congressional declaration

MAJOR INDUSTRY CONCERNS IN IMPLEMENTING LEGISLATION

- Affirmative defense/burden of proof
- Definitions
- Potential regulatory burden
- U.S. representatives during inspections
- Company participation in negotiating a facility agreement
- Penalty provisions

OTHER INDUSTRY CONCERNS IN CWC IMPLEMENTATION

- Domestic
  - Unique opportunity to craft efficient regulation
  - Department of Commerce
  - Regulatory program being developed
  - Declaration formats

OTHER INDUSTRY CONCERNS IN CWC IMPLEMENTATION

- International
  - Exemptions
  - Achieving the "Level-Playing Field"
  - Consistency in national implementation

PREPARING FOR CWC IMPLEMENTATION

- Start collecting data likely to be required for declarations
- Prepare for routine inspections
- Consider unique aspects of facility agreements
- Identify and communicate potential problem areas to the Government
- Help us help the industry

Chemical Manufacturers Association
(202) 887-1170

ANNEX III

SUPPLEMENTAL MATERIALS

SCHEDULE 1 CHEMICALS

[Ref: CWC pgs 50-51]

CAS No.

A. Toxic Chemical Warfare Agents

(1) O-R_1 R_2phosphonofluoridate
- $R_1 \leq C_{10}$, including cycloalkyl
- R_2 = methyl, ethyl, n-propyl, isopropyl
- specified examples:
- Sarin, GB: O-isopropyl methylphosphonofluoridate [107-44-8]
- Soman, GD: O-pinacolyl methylphosphonofluoridate [96-64-0]

(2) O-R_1 N,N-diR_2phosphoramidocyanidate
- $R_1 \leq C_{10}$, including cycloalkyl
- R_2 = methyl, ethyl, n-propyl, isopropyl
- specified example:
- Tabun, GA: O-ethyl N,N-dimethyl phosphoramidocyanidate [77-81-6]

(3) O-R_1 S-{2-(N,N-diR_2amino)ethyl} R_3phosphonothiolate and corresponding alkylated or protonated salts
- R_1 = H or $\leq C_{10}$, including cycloalkyl
- R_2 = methyl, ethyl, n-propyl, isopropyl
- R_3 = methyl, ethyl, n-propyl, isopropyl
- specified example:
- VX: O-ethyl S-{2-(N,N-diisopropylamino)ethyl} methylphosphonothiolate [50782-69-9]

(4) Sulfur mustards
- bis(2-chloroethyl)sulfide [505-60-2]
- 1,2-bis(2-chloroethylthio)ethane [3563-36-8]
- bis(2-chloroethylthioethyl)ether [63918-89-8]
- bis(2-chloroethylthio)methane [63869-13-6]
- 1,3-bis(2-chloroethylthio)-n-propane [63905-10-2]
- 1,4-bis(2-chloroethylthio)-n-butane [142868-93-7]
- 2-chloroethylchloromethylsulfide [2625-76-5]
- 1,5-bis(2-chloroethylthio)-n-pentane [142868-94-8]
- bis(2-chloroethylthiomethyl)ether [63918-90-1]

(5) Lewisites
- 2-chlorovinyldichloroarsine [541-25-3]
- bis(2-chlorovinyl)chloroarsine [40334-69-8]
- tris(2-chlorovinyl)arsine [40334-70-1]

(6) Nitrogen mustards
- bis(2-chloroethyl)ethylamine [538-07-8]
- bis(2-chloroethyl)methylamine [51-75-2]
- tris(2-chloroethyl)amine [555-77-1]

(7) Saxitoxin [35523-89-8]

(8) Ricin [9009-86-3]

B. Immediate Precursors

(9) R_1phosphonyldifluoride
- R_1 = methyl, ethyl, n-propyl, isopropyl
- specified example:
- DF: methylphosphonyldifluoride [676-99-3]

(10) O-R_1 O-{2-(N,N-diR_2amino)ethyl} R_3phosphonites and corresponding alkylated or protonated salts
- R_1 = H or $\leq C_{10}$, including cycloalkyls
- R_2 = methyl, ethyl, n-propyl, isopropyl
- R_3 = methyl, ethyl, n-propyl, isopropyl
- specified example:
- QL: O-{2-(N,N-diisopropylamino)ethyl} O-ethyl methylphosphonite [57856-11-8]

(11) O-isopropyl methylphosphonochloridate [1445-76-7]

(12) O-pinacolyl methylphosphonochloridate [7040-57-5]

SCHEDULE 2 CHEMICALS

[Ref: CWC pgs 52-53]

CAS No.

A. Potential Toxic Chemical Warfare Agents

(1) Amiton; O,O'-diethyl S-{2-N,N-(diethylamino)ethyl} phosphorothiolate and corresponding alkylated or protonated salts [78-53-5]

(2) PFIB; 1,1,3,3,3-pentafluoro-2-(trifluoromethyl)-1-propene [382-21-8]

(3) BZ; 3-quinuclidinyl benzilate [6581-06-2]

B. Low Volume Commercial Precursors

(4) Chemicals (except those in Schedule 1) containing a phosphorus atom bonded to a single methyl, ethyl or propyl group but to no other carbon atoms.
specified examples:
methylphosphonyl dichloride [676-97-1]
dimethyl methylphosphonate [756-79-6]
specified exemption from Schedule 2 reporting requirements:
Fonofos; O-ethyl S-phenyl ethylphosphonothiolothionate [944-22-9]

(5) N,N-diR_1phosphoramidic dihalide
R_1 = methyl, ethyl, n-propyl, isopropyl

(6) O,O'-diR_1 N,N-diR_2 phosphoramidate
R_1 = methyl, ethyl, n-propyl, isopropyl
R_2 = methyl, ethyl, n-propyl, isopropyl

(7) Arsenic trichloride [7784-34-1]

(8) Benzilic acid; 2,2-diphenyl-2-hydroxyacetic acid [76-93-7]

(9) Quinuclidin-3-ol [1619-34-7]

(10) N,N-diR_1aminoethyl-2-chloride and corresponding protonated salts
R_1 = methyl, ethyl, n-propyl, isopropyl

(11) N,N-diR_1aminoethan-2-ol and corresponding protonated salts
R_1 = methyl, ethyl, n-propyl, isopropyl
specified exemptions from Schedule 2 reporting requirements:
N,N-dimethylaminoethanol [108-01-0]
N,N-diethylaminoethanol [100-37-8]
and their corresponding protonated salts

(12) N,N-diR_1aminoethane-2-thiol and corresponding protonated salts
R_1 = methyl, ethyl, n-propyl, isopropyl

(13) Thiodiglycol; bis(2-hydroxyethyl)sulfide [111-48-8]

(14) Pinacolyl alcohol; 3,3-dimethylbutan-2-ol [464-07-3]

SCHEDULE 3 CHEMICALS
[Ref: CWC pg 53]

		CAS No.
	A. Toxic Chemical Warfare Agents	
(1)	Phosgene; carbonyl dichloride	[75-44-5]
(2)	Cyanogen chloride	[506-77-4]
(3)	Hydrogen cyanide	[74-90-8]
(4)	Chloropicrin; trichloronitromethane	[76-06-2]
	B. Large Volume Commercial Precursors	
(5)	Phosphoryl chloride; phosphorus oxychloride	[10025-87-3]
(6)	Phosphorus trichloride	[7719-12-2]
(7)	Phosphorus pentachloride	[10026-13-8]
(8)	Trimethyl phosphite	[121-45-9]
(9)	Triethyl phosphite	[122-52-1]
(10)	DMHP; dimethyl [hydrogen] phosphite	[868-85-9]
(11)	DEHP; diethyl [hydrogen] phosphite	[762-04-9]
(12)	Sulfur monochloride	[10025-67-9]
(13)	Sulfur dichloride	[10545-99-0]
(14)	Thionyl chloride	[7719-09-7]
(15)	Ethyldiethanolamine	[139-87-7]
(16)	Methyldiethanolamine	[105-59-9]
(17)	Triethanolamine	[102-71-6]

CWC DEFINITIONS

"Chemical Weapons"

[Ref: CWC pg 4]

Chemical Weapons are toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, munitions and devices designed to cause death or other harm through the toxic properties of those toxic chemicals and any equipment specifically designed for use directly in connection with the employment of these munitions and devices.

"Consumption"

[Ref: CWC pg 7]

Conversion of the reportable chemical into another chemical via a chemical reaction. The definition covers any reactions on the premises, including waste treatment.

"Discrete Organic Chemical"

[Ref: CWC pg 61]

Discrete Organic Chemical means any chemical belonging to the class of chemical compounds consisting of all compounds of carbon except for its oxides, sulfides and metal carbonates:

identifiable by chemical name,

by structural formula, if known, and

by Chemical Abstracts Service registry number, if assigned.

"Exportation"

Transfer of the reportable chemical from the State Party to another country.

"Facility"

[Ref: CWC pg 62]

Facility is any of the industrial sites ("plant site", "plant", and "unit").

"Facility Agreement"

[Ref: CWC pg 63]

"Facility Agreement" is an agreement or arrangement between a State Party and the OPCW relating to a specific facility subject to on-site verification.

"Importation"

Transfer of the reportable chemical from another country to the State Party.

"Other Chemical Production Facilities"

[Ref: CWC pg 145]

Other Chemical Production facilities are plant sites that produce, by synthesis, unscheduled discrete organic chemicals, i.e., discrete organic chemicals not listed on Schedules 1, 2 or 3.

"Plant" (Production or Process Unit)

[Ref: CWC pg 63]

A plant is a relatively self-contained area, structure or building containing one or more units with auxiliary and associated infrastructure, such as:

Small administrative section
Storage/handling areas for feedstock and products
Effluent/waste handling/treatment area
Control/analytical laboratory
First aid service/related medical section
Records associated with the movement into, around and from the site of declared chemicals, and their feedstock or product chemicals formed from them, as appropriate.

"Plant Site" (Works, Factory)

[Ref: CWC pgs 62-63]

A plant site is the local integration of one or more plants, with any intermediate administrative levels, which are under one operational control, and includes common infrastructure, such as:

Administration and other offices
Repair and maintenance shops
Medical center
Utilities
Central analytical laboratory
Research and development laboratories
Central effluent and waste treatment area
Warehouse storage

"Precursor"

[Ref: CWC pg 4]

A "Precursor" is any chemical reactant which takes part at any stage in the production, by whatever method, of a toxic chemical.

"Processing"

[Ref: CWC pg 7]

Processing of a chemical means a physical process, such as formulation, extraction and purification, in which the reportable chemical is not converted into another chemical.

"Production"

[Ref: CWC pg 7]

Production of a chemical means its formation through a chemical reaction.

"PSF Chemicals"

[Ref: CWC pg 145]

PSF chemicals are discrete organic chemicals containing phosphorus (P), sulfur (S), or fluorine (F).

"Purposes Not Prohibited Under this Convention"

[Ref: CWC pg 6]

Purposes Not Prohibited Under this Convention means:

Industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes;
Protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons;
Military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare;
Law enforcement including domestic riot control purposes.

"Toxic Chemical"

[Ref: CWC pg 4]

A "Toxic Chemical" is any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals.

"Unit"

[Ref: CWC pg 63]

Unit (Production unit, Process unit) means the combination of those items of equipment, including vessels and vessel set up, necessary for the production, processing or consumption of a chemical.

QUANTITATIVE REPORTING:
THRESHOLDS
Metric Tonnes (except as noted)

	CHEMICAL CATEGORIES				
	SCHEDULED CHEMICALS			DISCRETE ORGANIC CHEMICALS	
	1	2	3		PSF
TYPE OF REPORT					
On Plant Site	100 g 10 kg ceiling		30	200	
On Plant		1*			30
On Importation/ Exportation		TBD	TBD		
For National Aggregate		TBD	TBD		

Legend:

* Threshold for BZ is 1 kg
Threshold for the other Schedule 2A chemicals is 100 kg

QUANTITATIVE REPORTING:
SPECIFIC CHEMICAL OR IN AGGREGATE

TYPE OF REPORT	CHEMICAL CATEGORIES				
	SCHEDULED CHEMICALS			DISCRETE ORGANIC CHEMICALS	
	1	2	3		PSF
On Plant Site	Aggregate	Specific	Specific	Aggregate	
On Plant					Specific (to trip threshold) Aggregate (for reporting)
On Importation/ Exportation		Specific	Specific		
For National Aggregate		Specific	Specific		

(IMPORTANT: Read instructions before completing forms)

Form Approved OMB Number: XX/X-XXXX
Approval Expires: 12/95

CWC DECLARATION 1995

NON-SCHEDULE 1, 2, OR 3 CHEMICAL PRODUCTION PLANT SITES

Date Received

Processing Control Number *HQ9721*

CERTIFICATION FORM

Supply the following identification and complete the Certification Block for each declaration. Then check the box for the type of declaration being submitted and check off the forms that are attached. Answers in C.9 will assist in future communication with industry.

C.1 Name of Submitter and Point of Contact (POC)

C.2 Company Name

C.3 Mailing Address

City | State | Postal Code

C.4 Telephone Number ___ ___ ___ - ___ ___ ___ - ___ ___ ___ ___ (extension)

Fax Number ___ ___ ___ - ___ ___ ___ - ___ ___ ___ ___ (extension)

E-Mail Address

C.5 Date Submitted (DD-MMM-YYYY) ___ ___-___ ___ ___-___ ___ ___ ___

C.6 CERTIFICATION

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of responsible official

Signature

Date Signed (DD-MMM-YYYY) ___ ___-___ ___ ___-___ ___ ___ ___

C.7 A CWC Declaration of the following type is being submitted:

- ☐ INITIAL DECLARATION
- ☐ ANNUAL REPORT for the previous year (first submitted in 1996)
- ☐ Amended Declaration. Please indicate Processing Control Number of declaration to be amended:

C.8 Check off the reporting forms that are included:

NON-SCHEDULE 1, 2, OR 3 CHEMICAL PRODUCTION PLANT SITES

- ☐ FORM DOC

ADDITIONAL FORMS

- ☐ FORM A
- ☐ FORM B

C.9

- ☐ Please send a copy of the 1996 edition of the report forms and instructions to the above named POC in anticipation of possible 1996 declarations.
- ☐ No facility or operation of this company or corporation, its affiliates or subsidiaries has any reporting obligations.

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CWC DECLARATION 1995

NON-SCHEDULE 1, 2, OR 3 CHEMICAL PRODUCTION PLANT SITES

PLANT SITE NAME or TS Plant Site Code (once assigned)

FORM DOC. NON-SCHEDULE 1, 2, OR 3 PLANT SITE IDENTIFICATION

Submit this form for each Non-Schedule Chemical Production Plant Site in every Non-Scheduled Chemical declaration.

Are you claiming the declaration of this Non-Schedule 1, 2 or 3 plant site to be Confidential Business Information, requiring additional protection by the OPCW? Yes ☐ No ☐

DOC.1 Owner(s) a. _____ b. _____

DOC.2 Operator(s) a. _____ b. _____

DOC.3 Street Address

City | State | Postal Code

DOC.4 Center of Plant Site (See Instructions)

a. Latitude __ __ / __ __ / __ __ / __ Deg / Min / Sec / N or S

b. Longitude __ __ / __ __ / __ __ / __ Deg / Min / Sec / E or W

Identify on Form A any additional information attached to this declaration to precisely locate this plant site. Indicate attachment here ☐.

Optional designation of Point of Contact for inspection notifications involving this plant site

DOC.5 NOTE: It must be possible for the Office of the National Authority to reach this POC at all hours through the telephone number in (b); otherwise, do not make this designation.

a. Name of POC _____ ☐

b. Telephone Number ___ ___ ___ - ___ ___ ___ - ___ ___ ___ ___ _____ (extension) ☐

c. Fax Number ___ ___ ___ - ___ ___ ___ - ___ ___ ___ ___ _____ (extension) ☐

DOC.6 Specify main activities involving any chemicals (See instructions for criteria)

- ☐ Storage
- ☐ Re-packaging, distribution
- ☐ Quality check (product inspection)
- ☐ Recycle
- ☐ Waste disposal
- ☐ R&D
- ☐ Other (specify) _____

HS Codes (Appendix C) ☐☐☐☐☐

DOC.7 (Approximate) number of plants producing Non-Scheaulea Chemicals at the plant site (including PSF plants). ☐☐☐☐

DOC.8 If this plant site is declarable due to production of Non-Schedule 1, 2, or 3 Chemicals, check the production range.

- a. 200 up to 1,000 metric tonnes ☐
- b. 1,000 up to 10,000 metric tonnes ☐
- c. 10,000 metric tonnes or more ☐

CWC DECLARATION 1995
NON-SCHEDULE 1, 2, OR 3 CHEMICAL PRODUCTION PLANT SITES

PLANT SITE NAME or TS PLANT SITE CODE (once assigned)

FORM DOC. NON-SCHEDULE 1, 2, OR 3 PLANT SITE IDENTIFICATION (CONTINUED)

Submit this form for each Non-Scheduled Chemical Production Plant Site, if applicable.

If this plant site is declarable due to the production of a Non-Schedule 1, 2, or 3 Discrete Organic Chemical that contains phosphorus, sulfur or fluorine (a "PSF" chemical) at one or more constituent plants, supply the name and check the production range of each PSF plant.

DOC. 9.___ a. Name of Plant ____________

b. 30 up to 200 metric tonnes ☐ c. 200 up to 1000 metric tonnes ☐ d. 1000 up to 10,000 metric tonnes ☐ e. 10,000 metric tonnes or more ☐

DOC. 9.___ a. Name of Plant ____________

b. 30 up to 200 metric tonnes ☐ c. 200 up to 1000 metric tonnes ☐ d. 1000 up to 10,000 metric tonnes ☐ e. 10,000 metric tonnes or more ☐

DOC. 9.___ a. Name of Plant ____________

b. 30 up to 200 metric tonnes ☐ c. 200 up to 1000 metric tonnes ☐ d. 1000 up to 10,000 metric tonnes ☐ e. 10,000 metric tonnes or more ☐

DRAFT

DOC. 9.___ a. Name of Plant ____________

b. 30 up to 200 metric tonnes ☐ c. 200 up to 1000 metric tonnes ☐ d. 1000 up to 10,000 metric tonnes ☐ e. 10,000 metric tonnes or more ☐

DOC. 9.___ a. Name of Plant ____________

b. 30 up to 200 metric tonnes ☐ c. 200 up to 1000 metric tonnes ☐ d. 1000 up to 10,000 metric tonnes ☐ e. 10,000 metric tonnes or more ☐

DOC. 9.___ a. Name of Plant ____________

b. 30 up to 200 metric tonnes ☐ c. 200 up to 1000 metric tonnes ☐ d. 1000 up to 10,000 metric tonnes ☐ e. 10,000 metric tonnes or more ☐

If additional pages of this second page of Form DOC for this plant site are attached, indicate the total number of pages as follows: page ___ of ___ (e.g., "page 2 of 6")

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DETERMINING INITIAL CWC INDUSTRY REPORTING REQUIREMENTS
(Assuming Entry Into Force in 1995)

You may have a facility reporting requirement in 1995 under the Chemical Weapons Convention if you:

Produced (or processed) 100 grams or more of Schedule 1 Chemicals in 1994 or plan to do so in 1995.

Produced, processed or consumed one metric tonne or more of any single Schedule 2 Chemical in any year from 1992 through 1994 or plan to do so in 1995.

Produced 30 metric tonnes or more of any single Schedule 3 Chemical in 1994 or plan to do so in 1995.

Imported or exported at least 100 grams of Schedule 1 Chemicals, 1000 kilograms of a Schedule 2 Chemical, or 30 metric tonnes of a Schedule 3 Chemical in 1994 or plan to trade in Schedule 1 Chemicals in 1995.

Produced any amount of any Schedule 1, 2, or 3 Chemicals for chemical weapons purposes in any year since 1946.

Produced 200 metric tonnes or more of discrete organic chemicals in 1994.

Produced 30 metric tonnes or more of any single discrete organic chemical containing phosphorus, sulfur, and/or fluorine in 1994.

For additional information, contact the Department of Commerce at (202) 482-4811.

BIOGRAPHICAL SKETCHES

Biographical Sketch

Dr. Susan Berger

Dr. Susan Berger serves as a chemist and as a policy analyst for the Treaty Compliance Division of the Office of Chemical and Biological Controls and Treaty Compliance at the Department of Commerce. Prior to her current position, she was a Senior Technical and Policy Analyst at Dyncorp-Meridian in Alexandria, Virginia. During her three years at Dyncorp-Meridian, Dr. Berger provided policy and technical expertise to both public- and private-sector clients on chemical and biological arms control issues, and conducted a study delineating the chemicals contained in the Schedules of the Chemical Weapons Convention (CWC). Prior to her position at Dyncorp-Meridian, she served as an action officer in the Bureau of Politico-Military Affairs at the U.S. Department of State. While at the Department of State, Dr. Berger contributed to the formulation of State Department positions on chemical and biological weapons arms control issues, represented the State Department at interagency meetings, and served as a State Department technical expert to the CWC negotiations conducted at the Conference on Disarmament.

Dr. Berger received a Bachelor of Science degree in Chemistry, with honors, from the University of Connecticut in 1985. In addition, she received a Doctor of Philosophy degree in Physical Chemistry from Stanford University in 1990. Dr. Berger was chosen as an Arms Control Fellow by the American Association for the Advancement of Science. Dr. Berger is the author of numerous papers associated with chemical and biological weapons arms control.

Biographical Sketch

Gordon M. Burck

Mr Gordon Burck is a recognized expert in chemical weapons arms control, offering a background that combines policy and technical arms control credentials. He serves as a Senior Policy Analyst at EAI Corporation, where his major work has been on the technical aspects of chemical industry verification. Besides this series of technical projects over the past several years, Mr. Burck has co-authored a major book on chemical weapons proliferation.

One of Mr. Burck's recent projects involved an analysis of the world (and particularly to the U.S.) chemical industry to determine how different regions would be affected by several definitions of "CW-capable" proposed in the CW Treaty negotiations. This included analysis of various specific criteria and producers by regions. The database was used to test various combinations of criteria and to support development of the U.S. negotiating position.

Another project was a survey of the existing U.S. data resources that derived from current regulatory data reporting. Mr. Burck compiled requirements for data from industry under the CWC and assessed currently available information on the identities and amounts of chemicals produced in the U.S., including the federal agencies involved, their methods of data collection, and the formats in which the information is sorted and published. He also contributed to the ACDA Outreach I and II seminar series which presented the Government's information on the CWC and solicited information from industry about their legal and technical concerns and managed an initial national survey of potentially affected companies. Most recently, he wrote an experimental instruction manual and designed reporting forms for industrial reporting.

Mr. Burck has contributed to tasks concerning sampling and analysis, inspection walk-throughs, the requirements for laboratories supporting the CWC and verification technologies for a report on operational concepts for compliance monitoring under the CWC. He also wrote a paper on the risks to the chemical industry posed by compliance with on-site inspections.

In previous work, Mr. Burck compiled profiles on the technical (alternative processors) and economic (manufacturers and users) characteristics of a variety of chemicals in order to assess the impact of proposed testing under the Toxic Substances Control Act.

Biographical Sketch

Richard E. D'Andrea

Richard (Rick) D'Andrea is a Physical Scientist in the Arms Control and Disarmament Agency's Multilateral Affairs Bureau where he works on U.S. implementation of multilateral and bilateral chemical weapons arms control accords. He was born on June 14, 1946, in Philadelphia, graduated from the University of Massachusetts with a BS degree in Chemistry and was commissioned in the Regular Army as a Second Lieutenant on June 1, 1968. Mr. D'Andrea earned a masters degree in Organic Chemistry from the University of Utah in June 1976, and then taught chemistry at the United States Military Academy, West Point, for three years. Colonel D'Andrea, a 1992 Army War College graduate, served in a variety of Infantry, Chemical Corps, and Research & Development assignments in Vietnam, Germany, and the United States including command of Radford Army Ammunition Plant 1988-1990; and several assignments in the Pentagon prior to being detailed to the Arms Control and Disarmament Agency in 1991. He retired from active duty on August 31, 1993. His awards include the Defense Superior Service Medal, Bronze Star for Valor, Meritorious Service Medal, Air Medal, and the Combat Infantryman Badge. Mr. and Mrs. D'Andrea, the former Carol Ann Klamar, reside in Springfield, Virginia with two obstreperous english setters.

Biographical Sketch

Charles M. Guernieri

Mr. Charles M. Guernieri joined the U.S. Department of Commerce's Office of Export Administration in 1980. His initial assignment was as an Export Counselor with the Exporter's Service Staff and he supervised that activity from 1982 through 1985.

From early 1985 until the present, Mr. Guernieri has supervised various organizational units within the Office of Export Licensing, to include the Multiple Licensing Branch, the Review and Referral Branch, and the Validated Licensing Division.

Since October 1994, Mr. Guernieri has been assigned as the Director of the Treaty Compliance Division.

Mr. Guernieri has participated extensively as an instructor and coordinator of the agency's Export Administration Regulations course since these courses were initiated in early 1984. He has represented the Department of Commerce in numerous inter-agency and inter-governmental forums on a wide variety of export control subjects.

Mr. Guernieri is a graduate of the University of Maryland and holds a Bachelor's Degree in Government and Politics and a Master's Degree in International Relations.

Biographical Sketch

Marybeth Kelliher

Marybeth Kelliher is Manager, International Trade for the Chemical Manufacturers Association (CMA). In her position, Ms. Kelliher is responsible for tracking international trade issues and legislation impacting the U.S. chemical industry. She staffs CMA's International Trade Committee Trade Controls, Trade Policy, and Trade and the Environment Work Groups, and assists in staffing the Chemical Weapons Work Group.

Ms. Kelliher came to CMA from the Chemical and Biological Arms Control Institute. She was previously with the staff of the Arms Control and Foreign Policy Caucus of the U.S. Congress.

Ms. Kelliher received an M.A. in International Relations from Ohio University, an M.A. in Political Science also from Ohio University, and a B.A. in Spanish and Political Science from Saint Joseph's College.

Biographical Sketch

Peter W. Mason

Peter W. Mason has been an Attorney-Advisor with the Office of General Counsel of the United States Arms Control and Disarmament Agency (ACDA) since May, 1994. During his brief tenure at ACDA, he has served as the legal advisor on U.S. delegations to the Preparatory Commission for the Organization for the Prohibition of Chemical Weapons (OPCW), the Special Conference to the Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and their Destruction (BWC), and the recently established Ad Hoc Group to the BWC which is tasked with drafting a legally binding instrument to strengthen the Convention. In addition, he has participated in bilateral negotiations in Moscow on implementation of the 1989 Wyoming Memorandum of Understanding, the Bilateral Destruction Agreement and the Chemical Weapons Convention (CWC).

He is a graduate of Case Western Reserve University School of Law cum laude, where he served as Editor-in-Chief of the Case Western Reserve Journal of International Law. He has been an intern for the International Commission of Jurists in Geneva, Switzerland and for the American Bar Foundation. Prior to the commencement of his legal career, he performed as a free-lance musician and received a B.M. in French Horn Performance from Northwestern University. He is the author of Pilgrimage to Religious Shrines: An Essential Element in the Human Right to Freedom of Thought, Conscience, and Religion, 25 Case W. Res. J. Int'l L. 619 (1993).

Biographical Sketch

Michael Moodie

Michael Moodie is the President of the Chemical and Biological Arms Control Institute (CBACI), a non-profit research organization established to promote the goals of arms control and non-proliferation. He brings to his leadership of the Institute more than twenty years of experience addressing international security issues in government, the policy research community, and academia.

In government, Mr. Moodie served from March 1990 to January 1993 as Assistant Director for Multilateral Affairs of the U.S. Arms Control and Disarmament Agency (ACDA) where he was responsible for such issues as chemical and biological weapons, conventional arms control, and confidence building measures, as well as U.S. policy relating to the arms control work of the Geneva-based Conference on Disarmament (CD) and the United Nations First Committee. Mr. Moodie was especially involved in the negotiations concluding the Chemical Weapons Convention for which his bureau was the interagency lead. Mr. Moodie was also involved in regional arms control, serving as Chairman of ACDA Coordinating Groups on Korea and Latin America, as a member of similar groups on the Middle East and South Asia. He was also head of the U.S. delegation to both the 1991 Biological Weapons Convention Review Conference and the 1992 Review Conference of the Environmental Modification Convention.

From 1983 to 1987, Mr. Moodie served as Special Assistant to the Ambassador and Assistant for Special Projects at the U.S. Mission to NATO, where he concentrated on such issues as the NATO/Warsaw Pact conventional balance, conventional arms control, and alliance defense industrial cooperation.

In the policy research community, Mr. Moodie has held senior research positions at the Institute for Foreign Policy Analysis and the Center for Strategic and International Studies, where he was also Senior Advisor to the President. He has served as Visiting Professor at Georgetown University's School of Foreign Service and as a consultant to the President's Foreign Intelligence Advisory Board.

Mr. Moodie is currently a member of the Editorial Board of the Washington Quarterly. He was educated at Lawrence University and the Fletcher School of Law and Diplomacy, Tufts University.

Biographical Sketch

Bernard L. Seward, Jr.

Bernard L. Seward, Jr., is an Attorney-Advisor with the Office of General Counsel of the U.S. Arms Control and Disarmament Agency (ACDA). He was the principal legal advisor to the U.S. delegations for the recently completed Chemical Weapons Convention (CWC) and the follow-on Protocols to the 1990 U.S.-Russia Bilateral Chemical Weapons Destruction Agreement (BDA). Mr. Seward is currently leading the inter-agency effort with regard to Article-by-Article analyses and the draft implementing legislation for these treaties. In addition, he provides legal advice with regard to the work of the CWC Preparatory Commission and lectures on the CWC and BDA to groups such as the inspector training classes at the Defense Intelligence College. Other areas of responsibility include the Biological Weapons Convention, export controls and non-proliferation. Mr. Seward has also worked on NPT, START, INF, TTBT and other arms control agreements.

Mr. Seward holds a B.S. degree in Economics (Magna Cum Laude) from Florida State University an a J.D. degree from the University of Virginia, where he also did graduate work in national security studies at Woodrow Wilson School of Government and Foreign Affairs. Prior to joining ACDA, he held various positions at the Department of Housing and Urban Development, NASA, and the Department of Energy. Mr. Seward is the editor of "Technology Transfer, Economic Development, and National Security: Competition and Cooperation" (University Press 1987).

Biographical Sketch

Michael P. Walls

Michael P. Walls is the Senior Assistant General Counsel of the Chemical Manufacturers Association of Washington, D.C. He was awarded a B.S.F.S. in 1980 from Georgetown University and his J.D. cum laude in 1984 from Syracuse University. Mr. Walls provides counsel to the Chemical Manufacturers Association, primarily on international trade and environmental matters. He also addresses international health and safety issues, as well as intellectual property matters. Before joining the Chemical Manufacturers Association, he was in private practice in Washington, D.C. He has also served on the staff of the United States Senate Budget Committee, and was a Legislative Assistant to U.S. Senator Jim Sasser. He has published articles on the notification responsibilities of chemical exporters, environmental export regulations, drug precursor regulations, and financing leveraged buyouts.

Biographical Sketch

Dr. Leo Zeftel

Dr. Leo Zeftel has over 40 years of experience in organic chemistry and process engineering in the chemical industry. As a result of his experience and expertise, he served on several prestigious committees, and co-chaired the Chemical Manufacturers Association's (CMA) Chemical Weapons Task Force original committee.

Dr. Zeftel is a senior consultant to EAI Corporation in the area of CWC arms control and the chemical industry. Since becoming a consultant to EAI in 1989, he has contributed to a number of projects, including world-wide chemical industry assessment, chemical weapons process parameters, and a number of field tests involving inspection and verification of chemical industry activities. He is currently a member of the EAI Technical Advisory Committee to support the U.S. Government's CW Treaty Verification Technology R&D Program.

Dr. Zeftel was a CMA representative at the International Chemical Industry Association's chemical weapons arms control meetings for many years. In addition, he is a frequent participant in a variety of CW arms control symposia and meetings as a speaker with an industry perspective.

Over the past five years, Dr. Zeftel has participated in a number of National Trial Inspections and an International Trial Inspection of an Italian chemical plant. He has participated in a trial inspection of a pharmaceutical plant. He has also coordinated the visit of a Russian delegation to U.S. chemical facilities and was instrumental in arranging numerous industry-government interfaces in support of different aspects of the CW Treaty R&D Program. He also contributed to the ACDA Outreach I and II seminar series which presented the government's information on the CWC and solicited information from industry about their legal and technical concerns.

Dr. Zeftel served over 38 years at the DuPont Company and rose from research chemist to division head, Chief Supervisor and Manager of Material Resources of the Chemical Department. His expertise lies with specialty chemicals, rubber chemicals, petroleum additives, aromatics and intermediates.

Overall, Dr. Zeftel's continued participation in DuPont chemical production in different positions provided a wealth of cumulative knowledge and insights into the operations of chemical plants and the chemical industry. It is upon this base that his current expert contributions to CW arms control are founded.

Biographical Sketch

Gerald P. Ziemba

Mr. Gerald P. Ziemba is a senior chemical engineer and technical expert on the Chemical Weapons Convention (CWC) and Biological Weapons Convention (BWC) in the Treaty Compliance Division of the Bureau of Export Administration for the Department of Commerce. He serves as a liaison to the U.S. chemical industry, and represents the Department of Commerce at international and interagency issues relating to the CWC. He was appointed a member the President's Export Council for four years, chairing a task force on competitiveness.

Previous to his employment at the Department of Commerce, he was the Global Business Operations Planning Manager for Agricultural Chemicals for DowElanco, a joint venture of Dow and Eli Lilly. He had also served in numerous management positions with Dow as the Business Operations Planning Manager for Agricultural Chemicals; Business Operations Manager for Plastics; New Ventures R&D Manager for HDPE Plastic Gas Tank and Plastic Bottles for Carbonated Liquids; FDA manager and R&D Group Leader for Plastics for Dow Europa, in Zurich, Switzerland; and Engineer for Plastic Paper Coatings. He also worked for Union Carbide Corporation in Technical Marketing.

Mr. Ziemba also gained vast experience while serving with the U.S. Army, both on active duty and in the U.S. Army Reserves. He retired from the USAR in 1988 as a Colonel. As a Chemical Corps Officer, he served in assignments as a chemical engineer at a BW pilot plant, R&D Engineer, and a deputy commander of an Army depot.

Mr. Ziemba has BChE from the University of Detroit and an MBA from Seton Hall University. He is also a graduate of the Chemical Corps Officers Basic Course, Chemical Corps Officers Advanced Course, R&D Managers Training, Command and General Staff College, National Defense University, and Air War College. Mr. Ziemba is a member of the Tau Beta Pi Engineering Honor Society.

QUESTION/COMMENT FORM

Name: _____
Title: _____
Company/Affiliation: _____

Question or Comment:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

If you wish this question to be addressed during the panel discussion at the end of this seminar, then this questionnaire should be placed in the designated box at the rear of the room or given to one of the presenters.
Critiques or comments about the administration of this seminar can be given to an EAI Corporation representative, or faxed to (703) 739-1525.

ANNEX IV

SEMINAR ATTENDEES

IV.1 ATTENDEES FROM THE CHEMICAL AND RELATED INDUSTRIES

IV.1.1 ATLANTA, GA

3V, INCORPORATED
RENEE ELLIOTT
P. O. DRAWER Y
GEORGETOWN, SC 29442
(803) 546-8556
(803) 546-0007 (FAX)

BORDON COMPANY
DR. MARIA PERINIS
180 E. BROAD STREET, 15TH FLOOR
COLUMBUS, OH 43215
(614) 225-7266
(614) 225-7639 (FAX)

CHEMOL COMPANY
MONEEB ZAKARIA
2410 RANDOLPH AVE.
GREENSBORO, NC 27406
(910) 333-3071
(910) 273-4645 (FAX)

DAIKIN AMERICA
RANDY ROUSSEL
P.O. BOX 2252
DECAUTER, AL 35609
(205) 306-5000
(205) 306-5432 (FAX)

DAIKIN AMERICA
RALPH WERLING
P.O. BOX 2252
DECAUTER, AL 35609
(205) 306-5000
(205) 306-5432 (FAX)

E.I. DUPONT COMPANY
LISA WILSON
BMP 14/2202
WILMINGTON, DE 19880-0014
(302) 992-2700
(302) 992-6758 (FAX)

E. I. DUPONT COMPANY
JIM BAUMGARDNER
P.O. BOX 1217
PARKERSBURG, WV 26102
(304) 863-4774
(304) 863-4198 (FAX)

F.A.R. RESEARCH, INC.
CRAIG ELLIS
2210 WILHELMINA COURT, N.E.
PALM BAY, FL 32905
(919) 248-2100
(919) 990-6777 (FAX)

GLAXO RESEARCH INSTITUTE
DR. JOHN J. PARTRIDGE
5 MOORE DRIVE
RESEARCH TRIANGLE PARK, NC 27709
(919) 990-6736
(919) 990-6777 (FAX)

GOODYEAR TIRE & RUBBER CO.
MICHAEL W. SMITH
1144 E. MARKET STREET
AKRON, OH 44316
(216) 796-2362
(216) 796-1919 (FAX)

HALOCARBON PRODUCTS
KEN MCDOWELL
P. O. BOX 6369
NORTH AUGUSTA, SC 29841
(803) 278-3500
(803) 279-7767 (FAX)

HOFFMAN LA-ROCHE
LEO CHAMBERS
KINGSLAND STREET
NUTLEY, NJ 07042
(201) 235-2524
(201) 235-4732 (FAX)

RHONE-POULENC
RICK FIFE
3111 MARBLE MILL ROAD
MARIETTA, GA 30060
(404) 514-6520
(404) 514-6539 (FAX)

RHONE-POULENC
KRISTEN BARTLETT
1525 CHURCH STREET EXT.
MARIETTA, GA 30060
(404) 429-2962
(404) 429-2776 (FAX)

TENNESSEE VALLEY PERFORMANCE PRODUCTS
KELLIE J. MARLER
395 MANUFACTURER'S ROAD
DAYTON, TN 32321
(615) 775-2281
(615) 775-3050 (FAX)

TRINITY MANUFACTURING, INC.
JOHN PAULSON
P. O. BOX 1519
HAMLET, NC 28345
(910) 582-5650
(910) 582-4433 (FAX)

UCB CHEMICALS, INC.
RONALD GOLDEN
2000 LAKE PARK DRIVE
MARIETTA, GA 30080
(404) 434-6188
(404) 434-8314 (FAX)

VULCAN CHEMICALS
BEN CRAIG
P.O. BOX 530390
BIRMINGHAM, AL
(205) 877-3857
(205) 877-3102 (FAX)

YORKSHIRE PAT-CHEM
JIM BURKE
P.O. BOX 1926
GREENVILLE, SC 29602-1926
(803) 370-0745
(803) 952-8365 (FAX)

ZENECA, INC.
DAVID FESPERMAN
P.O. BOX 32
BUCKS, AL 36512
(334) 675-0950
(334) 675-0957 (FAX)

ZENECA, INC.
DENNIS SMITH
P.O. BOX 32
BUCKS, AL 36512
(334) 675-0950
(334) 675-0957 (FAX)

IV.1.2 OAKLAND, CA

AVERY DENNISON CHEMICALS
H. PAUL BARKER
2900 BRADLEY STREET
PASENDA, CA 91107
(818) 398-2737
(818) 791-8805 (FAX)

CHEVRON CORPORATION
CHARLOTTE R. FARBER
225 BUSH STREET
SAN FRANCISCO, CA 94104
(415) 894-0782
(415) 894-7774 (FAX)

CHEVRON INT'L OIL CO.
WILLIAM K. GRIFFITH
P. O. BOX 7146
SAN FRANCISCO, CA 94120-7146
(415) 894-0623
(415) 894-3247 (FAX)

CHEVRON INT'L OIL CO.
DIANE L. HOLMES
P. O. BOX 7146
SAN FRANCISCO, CA 94120-7146
(415) 894-3437
(415) 894-3247(FAX)

CHEVRON OVERSEAS PETROLEUM
SUSAN P. CALLISTER
6001 BOLLINGER CANYON ROAD, ROOM A/4100
RAMON, CA 94583
(510) 842-3552
(510) 842-4562 (FAX)

CHEVRON RESEARCH & TECH. CO.
THOMAS MCNICHOLAS
100 CHEVRON WAY
RICHMOND, CA 94802-0627
(510) 242-1248
(510) 242-1339 (FAX)

CHEVRON USA PRODUCTS
EVELYN HAYES
575 MARKET STREET, ROOM 534
SAN FRANCISCO, CA 94105
(415) 894-3535
(415) 894-2626 FAX)

GENENCOR INT'L., INC.
GERALD D. MERCER
180 KIMBALL WAY
SOUTH SAN FRANCISO, CA 94083
(415) 742-7515
(415) 742-7540 (FAX)

HUISH DETERGENTS, INC.
DON GOLLADAY
P.O. BOX 25057
SALT LAKE CITY, UT 84125
(801) 975-3161
(801) 977-0476 (FAX)

MONSANTO
J. RONALD CONDRAY
800 N. CHADBERGH
ST. LOUIS, MO 63167
(314) 694-8883
(314) 694-8957 (FAX)

SCHUMACHER
SALLY COSTELLO
1969 PALOMAR OAKS WAY
CALSBAD, CA 92009
(619) 931-2078
(619) 931-7819 (FAX)

SYNTEX (USA), INC.
CHARLES SPARKES
3401 HILLVIEW AVENUE
PALO ALTO, CA 94303
(415) 855-5040
(415) 855-6536 (FAX)

TRICAL
HANK MAZE
P.O. BOX 1327
HOLLISTER, CA 95024
(408) 637-0195
(408) 637-0273 (FAX)

CHEVRON INT'L OIL CO.
WILLIAM K. GRIFFITH
P. O. BOX 7146
SAN FRANCISCO, CA 94120-7146
(415) 894-0623
(415) 894-3247 (FAX)

CHEVRON INT'L OIL CO.
DIANE L. HOLMES
P. O. BOX 7146
SAN FRANCISCO, CA 94120-7146
(415) 894-3437
(415) 894-3247(FAX)

CHEVRON OVERSEAS PETROLEUM
SUSAN P. CALLISTER
6001 BOLLINGER CANYON ROAD, ROOM A/4100
RAMON, CA 94583
(510) 842-3552
(510) 842-4562 (FAX)

CHEVRON RESEARCH & TECH. CO.
THOMAS MCNICHOLAS
100 CHEVRON WAY
RICHMOND, CA 94802-0627
(510) 242-1248
(510) 242-1339 (FAX)

CHEVRON USA PRODUCTS
EVELYN HAYES
575 MARKET STREET, ROOM 534
SAN FRANCISCO, CA 94105
(415) 894-3535
(415) 894-2626 FAX)

GENENCOR INT'L., INC.
GERALD D. MERCER
180 KIMBALL WAY
SOUTH SAN FRANCISO, CA 94083
(415) 742-7515
(415) 742-7540 (FAX)

HUISH DETERGENTS, INC.
DON GOLLADAY
P.O. BOX 25057
SALT LAKE CITY, UT 84125
(801) 975-3161
(801) 977-0476 (FAX)

MONSANTO
J. RONALD CONDRAY
800 N. CHADBERGH
ST. LOUIS, MO 63167
(314) 694-8883
(314) 694-8957 (FAX)

SCHUMACHER
SALLY COSTELLO
1969 PALOMAR OAKS WAY
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(619) 931-2078
(619) 931-7819 (FAX)

SYNTEX (USA), INC.
CHARLES SPARKES
3401 HILLVIEW AVENUE
PALO ALTO, CA 94303
(415) 855-5040
(415) 855-6536 (FAX)

TRICAL
HANK MAZE
P.O. BOX 1327
HOLLISTER, CA 95024
(408) 637-0195
(408) 637-0273 (FAX)

IV.1.3 NEWARK, NJ

ACID-AMINE TECHNOLOGY
WILLIAMS, JOHN
188 BROADWAY
WOODCLIFF LAKE, NJ 07675
(201) 391-9332
(201) 307-1221 (FAX)

AMOCO CHEMICALS
MCLELLAN, JIM
200 EAST RANDOLPH MC 6203
CHICACO, IL 60601
(312) 856-3441
(312) 856-7394 (FAX)

ARISTECH CHEMICAL CORPORATION
SEABOLT, SANDRA A.
600 GRANT STREET, ROOM 1115
PITTSBURGH, PA 15219
(412) 433-1965
(412) 433-7753 (FAX)

AUSIMONT USA, INC.
WEISSMAN, BARRY
P.O. BOX 26
THOROFARE, NJ 08086
(609) 251-3426
(609) 853-6405 (FAX)

BASF
SALAMONE, RICHARD J.
3000 CONTINENTAL DRIVE
MT. OLIVE, NJ 07828-1234
(201) 426-3470
(201) 426-3469 (FAX)

CIBA-GEIGY CORPORATION
DIBATTISTA, ANTHONY
444 SAW MILL RIVER ROAD
ARDSLEY, NY 10502
(914) 479-2776
(914) 479-4074 (FAX)

CIBA-GEIGY CORPORATION
ROSENFELD, BARRY
444 SAW MILL RIVER ROAD
ARDSLEY, NJ 10502
(914) 479-4369
(914) 479-2199 (FAX)

CROMPTON & KNOWLES CORPORATION
GOLLIE, WAYNE
P.O. BOX 341
READING, PA 19603
(610) 582-6639
(610) 582-6665 (FAX)

ENSIGN-BICKFORD
ZENGA, NANCY
P.O. BOX 7
SIMSBURY, CT 06070-0007
(203) 843 2973
(203) 843-2939 (FAX)

FORMOSA PLASTICS
CHRISTOU, PROKOPIS
9 PEACH TREE HILL ROAD
LIVINGSTON, NJ 07039
(201) 716-7284
(201) 716-7283 (FAX)

FABRICOLOR, INC.
MOTTA, CHARLES
24 1/2 VAN HOUTEN
PATTERSON, NJ 07505
(201) 742-3901
(201) 742-0311 (FAX)

THE GILLETTE COMPANY
WERNICK, TED
401 PROFESSIONAL DRIVE
GAITHERSBURG, MD 20879
(301) 590-1543
(301) 590-1535 (FAX)

HOECHST CELANESE CORP.
STOKES, ROBERT
202-206
SOMMERVILLE, NJ 08776
(908) 231-3054
(908) 231-2209 (FAX)

HOFFMANN-LAROCHE
O'MEARA, TERESA
340 KINGSLAND STREET, BLDG. 46 2ND FLR.
NUTLEY, NJ 07110
(201) 235-2798
(201) 235-7930 (FAX)

C. L. HAUTHAWAY
GERAS, THOMAS P.
638 SUMMER STREET
LYNN, MA 01905
(617) 592-6444
(617) 599-9565 (FAX)

HULS AMERICA, INC.
STEWART, HOPE E.
P.O. BOX 365
PISCATAWAY, NJ 08855
(908) 981-5286
(908) 981-5120 (FAX)

INTERNATIONAL SPECIALTY PRODUCTS
SERVON, RICHARD J.
1361 ALPS ROAD
WAYNE, NJ 07470
(201) 628-3034
(201) 628-4180 (FAX)

JOHNSON & JOHNSON (NORAMCO)
SELLERS, EUGENE
410 GEORGE STREET
NEW BRUNSWICK, NJ 08903
(908) 524-1946
(908) 524-1947 (FAX)

MATHESON GAS PRODUCTS
PLETZKE, THOMAS
30 SEAVIEW DRIVE
SECAUCUS, NJ 07094
(201) 867-4100
(201) 867-2913 (FAX)

NATIONAL STARCH & CHEMICAL
VALERIO, TED
P.O. BOX 6500
BRIDGEWATER, NJ 08807
(908) 685-5050
(908) 707-3763 (FAX)

OLIN CORPORATION
CZIRR, DAVID L.
350 KNOTTER DRIVE
CHESHIRE, CT 06410
(203) 271-4191
(203) 271-4351 (FAX)

OLIN CORPORATION
FLOYD JR., JIMMIE
350 KNOTTER DRIVE
CHESHIRE, CT 06410
(203) 271-4191
(203) 271-4351 (FAX)

RHONE-POULENC
COFFEE, ROSEMARIE
C.N. 7500 PROSPECT-PLAINS ROAD
CRANBURY, NJ 08512-7500
(609) 860-3590
(609) 860-0160 (FAX)

RHONE-POULENC
CUNNINGHAM, DAVID B.
5954 HARRIETS BLUFF RD., E., P.O. BOX 425
WOODBINE, NJ 31569
(912) 729-9325
(912) 729-9168 (FAX)

RHONE-POULENC
RANBOM, KAREN
C.N. 7500 PROSPECT-PLAINS ROAD
CRANBURY, NJ 08512-7500
(609) 860-3590
(609) 860-0160 (FAX)

RHONE-POULENC
DENIZARD-PEREZ, NOEMI
1 CORPORATE DRIVE
SHELTON, CT 06484
(203) 925-3506
(203) 925-3665 (FAX)

SANDOZ PHARMACEUTICAL
SCHUMACHER, KEN
59 ROUTE 10
EAST HANOVER, NJ 07936
(201) 503-6556
(201) 503-6370 (FAX)

SCHERING-PLOUGH CORPORATION
CONROY, ANN
2000 GALLOPING HILL ROAD
KENILWORTH, NJ 07033
(908) 298-4745
(908) 298-2254 (FAX)

SIKA CORPORATION
GLASSER, SCOTT F.
201 POLIFO AVENUE
LYNDHURST, NJ 07071
(201) 933-8800
(201) 933-6134 (FAX)

SUVAR CORPORATION
ROSENSTOCK, PAUL
820 SHERMAN AVENUE
PENNSAUKEN, NJ 08110
(609) 662-0128
(609) 488-4668 (FAX)

UNGERER & COMPANY
GARTNER, ANNEMARIE
4 BRIDGEWATER LANE
LINCOLN PARK, NJ 07035
(201) 628-0600
(201) 628-0259 (FAX)

UNIROYAL CHEMICAL CO.
FRIEDMAN, HOWARD S.
BENSON ROAD
MIDDLEBURY, CT 06749
(203) 573-5125
(203) 573-4531 (FAX)

IV.1.4 WASHINGTON, DC

A-1 PLATING CO., INC.
C.G. REYNOLDS
311 S. HAUEN STREET
BALTIMORE, MD 21224
410-327-5552
410-276-8726 (FAX)

ALBRIGHT & WILSON AMERICAS
CATHY MORIN
162 HUNTERS RUN
NEWTOWN SQUARE, PA 19073
610-325-3961
610-325-3971 (FAX)

AMADEUS, INC.
MARC TURNER
1611 N. KENT, SUITE 912
ARLINGTON, VA 22209
703-243-6100
703-522-9126 (FAX)

AMVAX, INC.
ED ARCURI
12103 INDIAN CREEK COURT
BELTSVILLE, MD 20705
301-470-6100
301-470-6198 (FAX)

ARCO CHEMICAL CO.
SUSANNAH R. GOODMAN
3801 W. CHESTER PARK
NEWTOWN SQUARE, PA 19073
610-359-2507
610-359-2414 (FAX)

BAYER CORPORATION
CHRISTINA COCCIARDO
100 BAYER ROAD
PITTSBURG, PA 15205
412-777-2548
412-777-7484 (FAX)

BUFFALO COLOR CORP.
GORDON G. BOLLES, JR
100 LEE STREET
BUFFALO, NY 14240
716-827-4533
716-827-4717 (FAX)

CHEM DESIGN CORPORATION
ROBERT G. BRINKLEY
99 DEVELOPMENT ROAD
FITCHBURG, MA 01420
508-345-9999
508-342-9769 (FAX)

THE DOW CHEMICAL CO.
JERRI CHASE
1790 PATRICK LOW BLDG., P.O. BOX 1967
MIDLAND, MI, 98674
517-636-0511
517-636-1352 (FAX)

FMC CORPORATION
GALE DEBORAH DOWNEY
P.O. BOX 8
PRINCETON, NY 08534
(609) 951-3038
(609) 951-3800 (FAX)

GEOMET
FRANK KELLY
8577 ATLAS DRIVE
GAITHERSBURG, MD 20877
301-417-9605
301-990-1925 (FAX)

HERCULES INC.
W. L. GODSEY
1313 N. MARKET STREET
WILMINGTON, DE 19894-0001
302-594-6911
302-594-7255 (FAX)

HOLTRACHEM MANUFACTURING CO.
DEBRA GAUVIN
P. O. BOX 189
ORRINGTON, ME 04474
207-825-3341
207-825-4725 (FAX)

ICI AMERICAS, INC.
JOHN M. WITTE
3411 SILAWILL ROAD.,P. O. BOX 15391
WILMINGTON, DE 19850-5391
302-887-5566
302-887-2454 (FAX)

ICI FIBERITE, INC.
BRAD DIERINGER
501 W. 3RD STREET
WINONE, MN 55987
507-452-8051
507-452-8195 (FAX)

KOPPERS INDUSTRIES, INC.
JOHN MARCINOWSKI
436 7TH AVENUE - K-1800
PITTSBURGH, PA 15219
412-227-2884
412-227-2423 (FAX)

LOMAC, INC.
DONALD HENZ
266 W. MITCHELL AVENUE
CINCINNATI, OH 45232
513-681-0099 EXT. 107
513-681-9899 (FAX)

MALLINCKRODT VET.
ELLEN SPITZ
1331 SOUTH FIRST STREET
TERRE HAUTE, IN 47802
812-232-0121
812-234-2854 (FAX)

MALLINCKRODT VET.
MIKE MCKEE
1331 SOUTH FIRST STREET
TERRE HAUTE, IN 47802
812-232-0121
812-234-2854 (FAX)

MERCK & CO., INC.
BRUCE D.TAYLOR
P. O. BOX 100, WS2F-48
WHITEHOUSE STATION, NJ 08889
908-423-7885
908-735-1389 (FAX)

MITSUI & CO. (USA)
KENT BOSSART
1701 PENNSYLVANIA AVE., NW #500
WASHINGTON, DC 20006
202-861-0668
202-861-0437 (FAX)

MMM(3M)
DAVID TREMONT
3M CENTER BUILDING 236-GL-04
ST. PAUL, MN 55144
612-736-6052
612-737-7703 (FAX)

QUALITY CHEMICALS
ROBERT BARKER
P. O. BOX 216
TYRONE, PA 16686
814-684-4310
814-684-2532 (FAX)

RAYTHEON
JERALD L. SUTHERLEN
1215 JEFFERSON DAVIS HWY, SUITE 1800
ARLINGTON, VA 22202
703-416-3851
703-416-5909 (FAX)

SUN CHEMICAL CORP.
ROBERT SHARKEY
5020 SPRING GROVE AVE.
CINCINNATI, OH 45232
513-681-5950 EXT. 249
513-632-1531 (FAX)

SYBRON CHEMICALS
MARK A CZERWINSKI
P. O. BOX 66
BRIMINGHAM, NJ 080-11
609-893-1100
609-894-0433 (FAX)

TELE-DYNE, INC.
BRAD LEWIS
2111 WILSON BLVD., STE. 1100
ARLINGTON, VA 22201
703-558-0497
703-522-1067 (FAX)

TEXAS INSTRUMENTS
ZAK KARAMALLY
TEXAS INSTRUMENTS
ZAK KARAMALLY
P. O. BOX 660246, M/S STATION 8603
DALLAS, TX 75266

UNION CARBIDE CORPORATION
PATRICIA L. CODY
39 OLD RIDGEBURY ROAD
DANBURY, CT 06817-0001
203-794-3451
203-794-2381 (FAX)

WAKO CHEMICALS
DAVID ALWOOD
1600 BELLWOOD ROAD
RICHMOND, VA 23237
804-271-7677
804-275-5213 (FAX)

WESTINGHOUSE ELECTRIC
HERB RILEY
11 STANWIX STREET
PITTSBURGH, PA 15222
412-642-5642
412-642-5614 (FAX)

ZENECA SPECIALITIES
DENNIS PICKERING
P. O. BOX 152
MT. PLEASANT, TN 38474
615-379-1393
615-379-7124 (FAX)

IV.1.5 HOUSTON, TX

ALDRICH CHEMICAL CO.
LINDA KEHREN
P. O. BOX 355
MILWAUKEE, WI 53201
(414) 273-3850
(414) 276-4579 (FAX)

ALDRICH CHEMICAL CO.
KEN TERBEEK
P. O. BOX 355
MILWAUKEE, WI 53201
(414) 273-3850
(414) 276-4579 (FAX)

ALLERGAN
CHRISTEL VILOGRON
2525 DUPONT DRIVE
IRVINE, CA 92713
(714) 752-4628
(714) 752-4234 (FAX)

ALPHA INTERMEDIATES
MICHELLE FISHER CURRY
4420 S. FLORES ROAD
ELMENDORF, TX 78112
(210) 621-2156
(210) 621-2063 (FAX)

BAKER HUGHES INTEQ
ZETTIE EVERSOLE
1010 RANKIN ROAD
HOUSTON, TX 77073
(713) 625-4204
(713) 230-3444 (FAX)

BAKER PERFORMANCE
HALINA CARAVELLO
3920 ESSEX LANE
HOUSTON, TX 77478
(713) 599-7545
(713) 599-7520 (FAX)

CHEVRON OVERSEAS
KIVI J. WALONEN
P. O. BOX 5046
SAN RAMON, CA 94583
(510) 842-4266
(510) 842-0089 (FAX)

HUNTSMAN CORP.
D'ANDRIA BANKS
3040 POST OAK BLVD.
HOUSTON, TX 77056
(713) 235-6491
(713) 235-6080 (FAX)

HUNTSMAN CORP.
THOMAS J.NELSON
3040 POST OAK BLVD.
HOUSTON, TX 77056
(713) 235-6491
(713) 235-6080 (FAX)

MICROWAVE NETWORKS
JEANNETTE PATTERSON
10795 ROCKLEY ROAD
HOUSTON, TX 77099-3571
(713) 983-6637
(713) 495-0863 (FAX)

MICROWAVE NETWORKS
ANNA VELASCO
10795 ROCKLEY ROAD
HOUSTON, TX 77099-3571
(713) 983-6637
(713) 495-0863 (FAX)

QUANTUM CHEMICAL CO.
CAROL SCHABABERLE
11530 NORTHLAKE DRIVE
CINCINNATI, OH 45249
(513) 530-6068
(513) 530-4301 (FAX)

ROHM & HAAS TEXAS, INC.
DAVID KIRKALDY
P. O. BOX 672
DEER PARK, TX 77536
(713) 478-1707
(713) 930-8314 (FAX)

SEA LION TECHNOLOGY
JIM RENFRO
P. O. DRAWER 631
TEXAS CITY, TX 77592-0631
(713) 337-2531
(713) 337-3694 (FAX)

IV.1.6 DETROIT, MI

CARBIDE GRAPHITE GROUP
GEORGE HOUGHTON
10200 LYIN STATION RD., STE 335
LOUISVILLE, KY 40223
502-423-4400
502-423-4498 (FAX)

CHEM-TREND, INC.
MARK ANTOSIAK
1445 W. MCPHERSON PARK DRIVE
P.O. BOX 860
HOWELL, MI 48844-0860
517-546-4520; 517-548-5370 (FAX)

DOW CORNING CORP.
BARBARA ANDERSON
P. O. BOX 994
MIDLAND, MI 48686-0994
517-496-4084
517-496-5849 (FAX)

FLINT INK CORPORATION
KIM OSBORN
33105 SCHOOLCRAFT ROAD
LIVONIA, MI 48150
313-458-7500
313-458-1514 (FAX)

FOMO PRODUCTS, INC.
TIMOTHY EBERLING
2775 BARBER ROAD
NORTON, OH 44203
216-753-4585
216-753-5199 (FAX)

ICI CANADA, INC.
MARIO MADIA
90 SHEPPARD AVENUE EAST
NORTH YORK, ONTARIO M2N GH2
416-229-8333
416-229-8397 (FAX)

MARION MERRELL DOW INC.
JOHN MUMME
2110 EAST GALBRAITH ROAD
CINCINNATI, OH 45215
513-948-7978
513-948-7982 (FAX)

MASTER CHEMICAL CORP.
MIDGE KIMMEY
501 WS. BOUNDARY
PERRYSBURG, OH 43551
419-874-7902
419-874-0684 (FAX)

OCCIDENTAL CHEMICAL
KEN KUBIAK
360 RAINBOW BLVD.
NIAGARA FALLS, NY 14302
716-286-3108
716-286-3141 (FAX)

REILLY INDUSTRIES, INC.
MISTY BOGLE
1500 S. TIBBS AVENUE
INDIANPOLIS, IN 46242
317-248-6425
317-248-6413 (FAX)

RHONE POULENC
ELMER R. JOHNSON
P. O. BOX 352
MT. PLEASANT, TN 38474
615-379-3208
615-379-8223 (FAX)

RHONE-POULENC
BEVERLY K. BOWYER
P. O. BOX 2831
CHARLESTON, WV 25330
304-747-6105
304-768-5750 (FAX)

SECODYNE, INC.
ERIC JACKSON
307 NORTH 1ST STREET
ANN ARBOR, MI 48103
313-665-1311
313-665-0689 (FAX)

THE UNO-VEN CO.
NICHOLAS J. NEDEAU
3850 N. WILKE ROAD
ARLINGTON HEIGHTS, IL 60004
708-818-7419
708-818-7155 (FAX)

VELSICOL CHEMICAL CORP.
DEADRA F. WOODS
10400 W. HIGGINS ROAD
ROSEMONT, IL 60018
708-635-3421
708-298-9015 (FAX)

WACKER SILICONES
SHARRONN ETTER
3301 SUTTON ROAD
ADRIAN, MI 49221
517-264-8367
517-264-8293 (FAX)

IV.2 ATTENDEES FROM OTHER ORGANIZATIONS

IV.2.1 ATLANTA, GA

DEPARTMENT OF COMMERCE
ROY GILFIX
200 EAST LASOLES BLVD., STE 1260
FT. LAUDERDALE, FL 33301
(305) 356-7546
(305) 356-7549 (FAX)

DR. THEODORE T. ROBIN, JR.
4524 PINE MOUNTAIN ROAD
BIRMINGHAM, AL 35213
(205) 870-7268

IV.2.2 OAKLAND, CA

PLG, INC.
WILLIAM GEKLER
4590 MacARTHUR BLVD., STE. 400
NEWPORT BEACH, CA 90260-2027
(714) 833- 2020
(714) 833-2085 (FAX)

U.S. PROFESSIONAL GROUP
WILLIAM LEE
3447 W. BEVERLY BLVD.
MONTEBELLO, CA 90640
(213) 726-7317
(213) 726-0800 (FAX)

U.S. PROFESSIONAL GROUP
GERALD DE CARVALHO
2447 W. BEVERLY BLVD.
MONTEBELLO, CA 90640
(213) 726-7317
(213) 726-2940 (FAX)

WHEELABRATOR CLEAN AIR SYS., INC.
PATRICK MEYN
15512 W. WASHINGTON STREET
WOODSTOCK, IL 60009
(815) 337-1917
815-337-1231 (FAX)

IV.2.3 NEWARK, NJ

MCMENAMIN, BRIGID
(212) 243-7651
(212) 206-5534 (FAX)

U.S. DEPARTMENT OF COMMERCE
FRANKEL, ALLAN
2 TELEPORT DRIVE
STATEN ISLAND, NY 10311-1001
(718) 370-0070
(718) 370-0826 (FAX)

IV.2.4 WASHINGTON, DC

ACDA
KEVIN HUTCHESON
U. S. ARMS CONTROL AGENCY
WASHINGTON, DC 20451
202-647-5075
202-736-7634 (FAX)

BDM FEDERAL, INC.
SEAN M. TEAGUE
1501 BDM WAY
MCLEAN, VA 22102
703-848-6865
703-848-5072 (FAX)

BNA
ELLEN BYERRUM
1231 25TH STREET, NW
WASHINGTON, DC 20036
(202) 331-5168

CAHILL & GORDON
BARBARA BRINCEFIELD
1990 K STREET, NW, STE. 950
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