OPEN FORUM ON THE CHEMICAL WEAPONS CONVENTION
Challenges to the Chemical Weapons Ban

1 MAY 2003                THE PEACE PALACE, THE HAGUE

FOREWORD
Ian Kenyon, Executive Secretary, OPCW Preparatory Commission, 1993-7,
and Forum Moderator

OPENING REMARKS
Mr Rogelio Pfirter, OPCW Director-General

KEYNOTE ADDRESS
H.E. Dr Adolf Ritter von Wagner, Former Ambassador of the Federal Republic of Germany to
the Argentine Republic and Former Chairman of the Ad Hoc Committee on Chemical Weapons
Conference on Disarmament

PRESENTATIONS
Chemical Weapons Destruction
CHEMICAL WEAPONS DESTRUCTION IN THE RUSSIAN FEDERATION:
Sergey Baranovsky, President, Green Cross Russia
CHEMICAL WEAPONS DESTRUCTION IN THE UNITED STATES:
Paul Walker, Legacy Program Director, Global Green USA

Status of Implementing Legislation
Nicholas A. Sims, Department of International Relations,
London School of Economics and Political Science

Article VI: Activities Not Prohibited
René van Sloten, International Council of Chemical Associations

Impact of Scientific Developments
Christopher K. Murphy, International Union of Pure and Applied Chemistry
Graham Pearson, Department of Peace Studies at Bradford University

PANEL DISCUSSION
THE CHEMICAL WEAPONS BAN AND THE USE OF INCAPACITANTS IN WARFARE AND LAW
ENFORCEMENT

Implications for International Humanitarian Law
Robin Coupland, International Committee of the Red Cross

General Purpose Criterion
Daniel Feakes, Harvard Sussex Program

Law Enforcement and Riot Control Agents
David Fidler, Federation of American Scientists

Riot Control Agents and the Chemical Weapons Convention
Barbara Hatch Rosenberg, Federation of American Scientists

Incapacitants
Malcolm Dando, Department of Peace Studies at Bradford University

Questions & Answers
OPEN FORUM ON THE CHEMICAL WEAPONS CONVENTION

This publication is a verbatim transcript of the *Open Forum on the Chemical Weapons Convention: Challenges to the Chemical Weapons Ban*, which was organised by the Organisation for the Prohibition of Chemical Weapons and which took place at the Peace Palace in The Hague on 1 May 2003, on the occasion of the First Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention (First Review Conference), 28 April – 9 May 2003.

The transcript has been published by the Harvard Sussex Program on CBW Armament and Arms Limitation (HSP). It is a verbatim account of the presentations, panel discussion, and question and answer session at the *Open Forum*. However, it has been slightly edited in consultation with the presenters and the Forum Moderator.

This transcript is also available on the HSP website at http://www.sussex.ac.uk/spru/hsp/publications and has been distributed with the March 2004 issue of *The CBW Conventions Bulletin* published by HSP. Please note, however, that publication of this transcript on the HSP website and shipment with the *Bulletin* do not imply any endorsement of the contents of the transcript nor necessarily reflect the position of HSP on any matters that were discussed at the *Open Forum*.

For any questions or comments, please contact HSP on ++ 44 1273 678 172.

MARCH 2004
Early in the preparations for the First Special Conference of the States Parties to the Chemical Weapons Convention to review the Convention in accordance with its Article VIII Paragraph 22, I was requested by a number of representatives of Non-Governmental Organisations to convey to the OPCW the wish of those organisations to be permitted to put to the Conference their views on various issues germane to the review. I accordingly wrote to the Director General, who forwarded my communication to the committee established by the Executive Council to make preparations for the review. The response was two-fold: a letter from the Chairman of the committee to each of the NGOs who had expressed interest, inviting them to put their views in writing for the benefit of the committee and the Conference; and the organisation of an International Forum in the Hall of Justice of the Peace Palace in The Hague, where some of the issues could be debated between outside experts and members of national delegations to the Conference. I had the honour to act as Moderator for the afternoon’s proceedings.

1 Ian Kenyon, Visiting Research Fellow, SPRU Science and Technology Policy Research, University of Sussex, United Kingdom. In his distinguished diplomatic career, Mr Kenyon has held various positions including Counsellor, United Kingdom Disarmament Delegation, Geneva; Head of the Nuclear Energy department in the Foreign and Commonwealth Office; Leader of the United Kingdom’s Delegation to the United Nations Disarmament Commission; as well as representing the United Kingdom on the Chemical Weapons ad-hoc committee working group on legal and administrative issues. From 1993 to 1997, Mr Kenyon served as Executive Secretary of the Preparatory Commission for the Organisation for the Prohibition of Chemical Weapons and is currently working at SPRU on a history of the Commission. Mr Kenyon is also a Visiting Senior Research Fellow at the Mountbatten Centre for International Studies, University of Southampton, United Kingdom.
OPENING REMARKS

Mr Rogelio Pfirter
Director-General, Technical Secretariat, Organisation for the Prohibition of Chemical Weapons

Excellencies, distinguished delegates, ladies and gentlemen, I am pleased to be able to open this Open Forum on the Chemical Weapons Convention.

We meet at an important moment in the Convention’s life: ten years after the Convention was opened for signature, and six years since its entry into force.

The Organisation for the Prohibition of Chemical Weapons is a success story. Over ten percent of the seven million kilograms of chemical agent and over twenty percent of the 8.6 million chemical munitions have already been destroyed under the verification of the OPCW’s inspectors. All of the declared chemical weapons production facilities have been deactivated and two-thirds of that number have either been destroyed or converted to peaceful purposes.

We have established a robust international verification regime and implemented it in almost 1,500 inspections conducted on the territory of over 50 States Parties.

The Organisation does face several challenges including the timely destruction of the declared chemical weapons, enhancing the international cooperation programmes, responding to the threat of use of chemical weapons by terrorists and adapting to changes in science and technology that require constant monitoring to ensure that the Convention retains its effectiveness.

These issues are pertinent not only for the National Authorities and the governments of the States Parties, but also for all of “civil society”. For this reason, this Forum brings together prominent lawyers, scientists, experts on chemical disarmament and the medical effects of weapons to provide their perspectives on the Convention, to discuss the challenges in the implementation of a total ban on chemical weapons, and to provide practical advice for dealing with some of the challenges we all face in implementing a chemical weapons ban.

The presentations you will hear are the product of the many decades of dedication and passion that these disarmament and arms control professionals have brought to the issue of chemical disarmament. I would like to thank the presenters and panellists for their invaluable support during the course of the Convention’s evolution and for their willingness to share these insights with us today.

The perspectives on the chemical weapons ban that you will hear today are those of representatives of “civil society”. Today, civil society promotes creative responses to the security challenges of this new century and in this way effectively supports and inspires the work of government officials all over the world.

The joint efforts of civil society and governments have also led to significant achievements in disarmament, ranging from the Non-Proliferation Treaty, the Chemical Weapons Convention, treaties on the reduction of nuclear weapons, the nuclear test ban stop to the Ottawa Convention on the Elimination of Land Mines…

The opinions expressed here will no doubt generate discussion now and later. The questions raised will not always be answered immediately. But, they will assist us in facilitating a much needed dialogue and deliberation of the present realities and future challenges for the Convention. Without that dialogue and debate, the Convention would be a less robust and adaptable disarmament instrument. This dialogue has, and will, ensure that the Convention can withstand the challenges its implementation presents today and in the future.

I look forward to a lively exchange of views and one that I hope will continue in years to come.

It is worth noting that little more than ten years ago, the will and determination of the Convention’s drafters brought forth the treaty that was finally deposited with the United Nations.

Instrumental in that singular success was my esteemed colleague and good friend, Ambassador Adolf von Wagner. In his capacity as the last chairman of the Ad Hoc Committee on Chemical Weapons of the Conference on Disarmament, Ambassador von Wagner masterfully choreographed the “clusters” of negotiators that distilled hundreds of pages of text into the Convention’s present form.

Ambassador von Wagner is an astute observer and practitioner of multilateral disarmament, having served his government for four decades in the negotiation of the Non-Proliferation, INMARSAT treaties, the Helsinki Convention, as well as the Mutual and Balanced Force Reduction negotiations. In addition, Ambassador von Wagner has headed his country’s delegation to the UN First
Committee and the Conference on Disarmament, as well as serving as Chairman of the United Nations First Committee. Ambassador von Wagner also served as his country’s Ambassador to Argentina, a time both he and I recall with particular pleasure.

I am also very pleased to be able to welcome to this Open Forum another good friend, Mr Ian Kenyon, whom so many of you have had the privilege to work with during his tenure here in The Hague as the Executive Secretary of the Preparatory Commission for the Organisation for the Prohibition of Chemical Weapons.

In his distinguished diplomatic career, Mr Kenyon has held various positions including First Secretary, United Kingdom Disarmament Delegation, Geneva; Head of the Nuclear Energy Department; leader of the United Kingdom’s Delegation to the United Nations Disarmament Conference; as well as representing the United Kingdom on the Chemical Weapons ad-hoc committee working group. Mr Kenyon is now the Joint Director of the Mountbatten Centre International Missile Forum and Visiting Senior Research Fellow at the Mountbatten Centre for International Studies. Ian Kenyon has generously offered to provide the moderation for this Open Forum, Thank you, Ian.

And now it is with great pleasure that I welcome our keynote speaker, Ambassador von Wagner, to the podium.

Thank you very much.

KEYNOTE ADDRESS

Dr Adolf von Wagner

The Handling of Toxic Chemicals for Law Enforcement Purposes, Including Domestic Riot Control Purposes within the Chemical Weapons Convention

The Chemical Weapons Convention (CWC) was concluded in the firm resolve to prohibit forever all chemical weapons. This is expressed in Article I, paragraph 1 of the Convention:

1. Each State Party to this Convention undertakes never under any circumstances:

(a) To develop, produce, otherwise acquire, stockpile or retain chemical weapons, or transfer, directly or indirectly, chemical weapons to anyone;
(b) To use chemical weapons;
(c) To engage in any military preparations to use chemical weapons;
(d) To assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Convention.

This is the basic commitment of any State Party to the CWC.

In defining what this commitment means, the question to be answered is: What is a “chemical weapon”? The answer follows from Article II, paragraph 1 of the CWC:

1. "Chemical Weapons" means the following, together or separately:

(a) Toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes;
(b) Munitions and devices, specifically designed to cause death or other harm through the toxic properties of those toxic chemicals specified in subparagraph (a), which would be released as a result of the employment of such munitions and devices;
(c) Any equipment specifically designed for use directly in connection with the employment of munitions and devices specified in subparagraph (b).

And from Article II, paragraph 2, follows:

2. "Toxic Chemical" means:

Any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals. This includes all such chemicals, regardless of their origin or of their method of production, and regardless of whether they are produced in facilities, in munitions or elsewhere.

(For the purpose of implementing this Convention, toxic chemicals which have been identified for the application of verification measures are listed in Schedules contained in the Annex on Chemicals.)

This logical sequence defines legally and practically which chemical substances are prohibited by the CWC and which are not.

2 H.E. Dr Adolf Ritter von Wagner, Ambassador of the Federal Republic of Germany (retired) and formerly Chairman of the Ad Hoc Committee on Chemical Weapons, Conference on Disarmament.
This material-oriented definition of chemical weapon, however, allows for one conditioned exception which is not based on the material or on substances but on the purpose for which they can be used. The conditioned exception reads:

Toxic chemicals and their precursors are not considered to be chemical weapons “where intended for purposes not prohibited under this Convention”, but only under the condition that “the types and quantities are consistent with such purposes.”

The material-oriented definition and the purpose-oriented exception to it produce an intellectual difficulty, in particular in the subject matter of this paper.

This exception “where intended for purposes not prohibited” is spelled out in Article II, paragraph 9. Here, among the four definitions presented, the one contained in subparagraph (d) is the one we are dealing with.

9. "Purposes Not Prohibited Under this Convention" means:

(a) Industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes;
(b) Protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons;
(c) 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;
(d) Law enforcement including domestic riot control purposes.

The unprohibited purpose for which toxic chemicals and their precursors may be used is “Law enforcement including domestic riot control”. Thus, the complete definition reads as follows:

Toxic chemicals and their precursors are not considered to be chemical weapons if they are intended for purposes of law enforcement including riot control.

This is a very specific and limited exception to the general rule that toxic chemicals and their precursors are chemical weapons.

The specifications and limitations of this exception partly are contained in the Convention itself, partly they are derived from other international legal instruments on which the Convention rests, in particular the Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare of 1925. The rules of the Vienna Convention on the Law of Treaties of 1969 are to be applied for correct interpretation.

These specifications and limitations of the exceptional case that toxic chemicals and their precursors are not considered to be chemical weapons, namely where they are intended for law enforcement, including domestic riot control, are all interconnected and, in the end, will have to be read in context.

I shall now deal with them one by one:

The basic rule for the correct and objective interpretation of an international legal instrument is contained in Article 31 of the Vienna Convention on the Law of Treaties which reads:

“A treaty shall be interpreted
• in good faith
• in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.”

If we approach the above-mentioned, complete definition in this spirit, it becomes clear that the specific term “domestic riot control” is contained in the general one, namely “law enforcement”. This relationship between the two terms, the specific one and the general one, is clearly expressed by the word “including”. This means that “law enforcement” and “domestic riot control” are by no means alternatives, but part of a coherent statement.

Thus, any interpretation considering “law enforcement” to be a purpose of its own, not defined in the Convention and, therefore, allowing to differentiate between toxic chemicals not prohibited for law enforcement and toxic chemicals not prohibited for domestic riot control is simply false.

This legally well-founded and correct interpretation gains its importance as “agents”, i.e. toxic chemicals for “riot control”, are defined in Article II, paragraph 7:

Any chemical not listed in a Schedule, which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure.

Since, as we have seen, “law enforcement” and “riot control” are two parts of one coherent expression, the definition of “riot control agent” is valid also for law enforcement purposes.

Were the differentiation of the two coherent parts admissible, toxic chemicals listed in Schedules would be prohibited only for riot control purposes but not for law enforcement purposes. In such a case, any State Party, without any restrictions, could develop,
produce, acquire, stockpile, retain or use listed toxic chemicals claiming they are intended for law enforcement purposes. Such an interpretation would doom the CWC to meaninglessness.

It is, therefore, fundamentally important for the survival of the Convention that the material definition of what is considered to be a riot control agent is valid not only for specific riot control purposes, but also for general law enforcement purposes. Any artificial interpretative separation of the two terms “law enforcement” and “domestic riot control” would run counter to

- good faith and
- the objective and purpose of the treaty.

In practical terms it would mean that the development, production and use of a third generation of chemical weapons would not be prohibited by the Convention. It could take place under the cover of fake law enforcement purposes.

Another limitation is the one I mentioned before, namely the condition annexed directly to the exception, i.e. “the types and quantities” of toxic chemicals intended for law enforcement and domestic riot control must be “consistent with such purposes.”

This means that, for example, weaponization of riot control agents in bombs, spray containers or artillery ammunition are inconsistent with the purpose and, therefore, prohibited by the Convention.

The same is true for quantities of stocks not required for that purpose.

This latter limitation is very much in line with the one contained in Article I, paragraph 5, which reads: “Each State Party undertakes not to use riot control agents as a method of warfare.”

This provision refers only to toxic chemicals which fall under the definition of riot control agents as contained in Article II, paragraph 7. It relates also to internal armed conflicts which may be local and relatively small-scale outbreaks of military or paramilitary violence. This flows from Protocol I to the Geneva Convention Relating to the Protection of Victims of International Armed Conflicts of 12 August 1949 where the expression “method of warfare” has been used.

Article 43 of this Protocol reads as follows: “The armed forces of a Party to the conflict consist of organized armed forces, groups and units which are under a command responsible to that Party for the conduct of its subordinates, even if that Party is represented by a government or an authority not recognized by an adverse Party.”

This provision might be of use for the distinction between an armed conflict, in which the use of riot control agents is prohibited, and a domestic riot, in which their use might not be prohibited.

And, finally, there is the context with the Geneva Protocol of 1925.

The Preamble of the CWC refers to the Geneva Protocol in three of its paragraphs:

- Paragraph 3 recalls that the UNGA condemned all actions contrary to the principles and objectives of the Geneva Protocol;
- Paragraph 4 recognizes that the CWC reaffirms principles and objectives of and obligations assumed under the Geneva Protocol;
- Paragraph 6 states the resolve that the CWC, by excluding completely the possibility of the use of chemical weapons through implementing its provisions, compliments the obligations assumed under the Geneva Protocol.

As to the factual relationship between the Geneva Protocol and the CWC, the Vienna Convention on the Law of Treaties provides in its Article 30, paragraph 2: “when a treaty specifies that it is subject to, or that it is not to be considered as incompatible with an earlier or later treaty, the provisions of that other treaty prevail.”

Throughout the negotiations of the Chemical Weapons Convention, the achievement of a comprehensive chemical weapons ban with a comprehensive scope like the Geneva Protocol was the generally shared objective. The entire negotiating process of more than 20 years was a constant affirmation of this objective.

If one puts into context all these provisions, exceptions and exceptions from the exceptions and takes into account the philosophy and the resolve which prevailed during the whole duration of the painstaking negotiations on the CWC, the conclusion can only be that the Convention with regard to law enforcement including domestic riot control allows for only a very narrow exception from the rule that each Party to the Convention undertakes never under any circumstances to develop, produce, otherwise acquire, stockpile or retain toxic chemicals.

Any interpretation going beyond that constitutes a clear and severe violation of the Convention — a violation which should duly be handled by the Organs of the OPCW in accordance with the provisions of the CWC.
Moderator: First of all I will be giving the floor to Sergey Baranovsky who is the President of Green Cross Russia. He is an expert in regional ecological problems, air pollution, combustion processes, incineration, environmental education and disarmament and has published widely on all these subjects.

Sergey Baranovsky\(^3\), President, Green Cross Russia

Chemical Weapons Destruction in the Russian Federation

Your Excellency, Director-General, Mr Chairman, Ladies and Gentlemen, I’d like to express my deep appreciation for the possibility of NGOs to speak at such a high level international meeting of CWC experts from all around the world. Particularly for an NGO from Russia, where there were no real NGOs during the Soviet period.

We have three on-site full destruction facilities planned. These are at Gorny in the Saratov Oblast, Kambarka in the Udmurt Republic, and at Shchuch’ye in the Kurgan Oblast. One stockpile at Kizner will be transported to Shchuch’ye from the Udmurt Republic. And there will be three on-site pre-treatment, neutralization facilities at Maradikovo in the Kirov Oblast, Leonidovka in the Penza Oblast, and Pochep in the Bryansk Oblast. Second stage processing of the neutralized waste from these three sites will be completed in Shchuch’ye.

To implement the Chemical Weapons Convention in Russia, we have a National Authority, the Russian Munitions Agency, which is a part of the Russian Government. To co-ordinate the efforts of different agencies involved in the chemical weapons destruction process, President Putin, by his decree, organised the Presidential Committee on Chemical Weapons Destruction, where not only are the different governmental agencies involved in chemical weapons destruction represented, but also all of the governors from the different regions, in addition to the representatives of the National Academy of Science, and for the first time in the history of Russia, an NGO representative has been included in the Presidential Committee.

What is the result of the activity of these agencies? To date, the Russian Federation has destroyed four hundred tons in Gorny. This task was completed on 26 April 2003. A neutralisation facility is also under construction at Shchuch’ye.

I would like to present to you, as an NGO representative, the role of non-governmental organisations; this is a very complex process. We have three main components of chemical weapons destruction. The first is politics and the key role belongs to politicians, mostly legislators. The second component is the financial component, which is very important; the key role belongs to governments and inter-governmental organisations; for example, the European Union and, in some cases, private funds. Finally, the third component: public participation and in this particular question, the key role is played by Non-Governmental Organisations.

The process began with the signing of the Chemical Weapons Convention in January 1993, followed by its ratification by the Russian Federation on 5 November 1997. In this process, NGOs such as Green Cross Russia played a very significant role. In part, these efforts are directed towards focussing the political will for the full implementation of the Chemical Weapons Convention. Here again, NGOs play a very important role. For example, Green Cross Russia established a national dialogue programme and brought together different stakeholders to fully participate in the process of the Chemical Weapons Convention implementation.

---

\(^3\) Sergey (Igorevich) Baranovsky is the President of Green Cross Russia. Some previous posts held by Mr Baranovsky include Deputy General Director - Head Of Scientific Division, Ecoprom (1990-1992); and President's Environmental Expert; Gorbachev Foundation (1992-1993).
The next component is the financial challenge. The international community promised, during the Convention’s ratification process in Russia, to provide funding. The first promise was from the United States—888 million US dollars. In addition, the Russian Federation’s political will is expressed through budget numbers. As Mr Kirienko mentioned in his address to the First Review Conference, there has been a twelve-fold increase in the Russian Federal budget since year 2000 for chemical weapons destruction. Significant bilateral funding, as well as the G8 commitments, have now been made. And, as you can see, the flags of those countries that are really participating in the Russian chemical weapons destruction programme are displayed here.

Then we have the societal challenges. This is an often overlooked component and the primary question relates to public health, old people who live around stockpiles and future destruction facilities. They are not quite sure that they are healthy because of the stockpile of chemical weapons and they are very afraid that the future destruction can somehow impact their health conditions. Questions of environmental impact also play an important role.

Emergency preparedness practically doesn’t exist today and it needs to be very much improved.

All regions need economic development and it may be impacted by the future destruction of facilities, but we have some lessons learned in Chapayevsk in 1989. I will not go into details, but some of you have experts in the chemical destruction know that in 1989 the Soviet Union announced internationally that the Soviet Union, together with Americans, would build centralized, full-scale destruction facilities; but it was the beginning of perestroika and some radical NGOs and some local politicians somehow ignited the public process resulting in large, public demonstrations. Finally this new, full-scale turnkey facility built at Chapayevsk was unable to open and operate. The process of chemical weapons destruction was frozen at that time in Russia. We clearly have to learn some lessons from this troubling event.

In order to facilitate the process of chemical weapons destruction, Green Cross International organised the international Legacy Programme which deals with the environmental legacy of the cold war. This programme has been active since 1994 when three national organisations of Green Cross -- Green Cross Russia, Green Cross Switzerland, and Global Green USA, which is Green Cross USA, made the coalition and started their efforts in different fields of disarmament and we managed to organise a sub-programme in Legacy Programme – ChemTrust – that is, building trust in chemical weapons destruction. The aim of this programme is to facilitate safe and environmentally sound chemical weapons destruction by forming a positive public opinion as a neutral third party through raising awareness and providing information. Our model of public facilitation also creates an atmosphere of trust amongst the public, involves the public in the decision making process and aims to build consensus among all stakeholders in resolving concrete local problems.

Finally, we have some selected achievements. We have ten public outreach offices in Russia which are working on different levels with the population around the chemical weapons facilities in some places like Leonidovka, Schuch’ye, Pochepe, and Maradikovo as well as in the capitals of the oblasts or republics.

We have organized five public hearings. We have also established up to now two citizen advisory commissions. We provide public expertise, risk and independent health assessments. We organise environmental and health camps for children and families. More than three thousand children from all seven stockpile regions have participated to date and have received environmental education. We have also established a national dialogue – an open exchange between all stakeholders with full transparency, consensus development, and reasonable approaches to chemical weapons destruction. This is a comparably new instrument in contemporary Russian society. This is a real tool of civil society for our country.

At the very end of my presentation I’d like to finish with the conclusion that Green Cross public hearings in 1995 opened the door to the current Gorny CW destruction process. It was only because of those public hearings eight years ago that the local population in the region of Saratov became engaged and accepting of demilitarization. Finally it was possible to build the facility, currently in operation, and because of that Russia was successful in destroying its initial one percent of the Russian chemical stockpiles. And my final conclusion, the third component in the chemical demilitarisation process, is equally important, perhaps even more important right now – the fact that Non-Governmental Organisations play a very significant role in facilitating the safe and successful destruction of chemical weapons stockpiles and full implementation of the Chemical Weapons Convention.

Thank you very much for your attention.
Paul Walker, Global Green USA

Chemical Weapons Destruction in the United States

I’d like first to thank the Director-General, Rogelio Pfirter, and also Mr Huang, Director for External Relations, and Peter Kaiser, Head of Media and Public Affairs Branch, as well as all of your OPCW colleagues who have allowed us to come forward today and hold what I hope will be a very interesting and helpful discussion and debate around chemical weapons.

I would like to recognize my colleague, Sergey Baranovsky, and our colleagues in the audience as well — Stephan Robinson and Vicky Rossi from Switzerland, who have worked in this area for what seems like a lifetime. It’s been probably about a decade that we all have tried our best to implement the Chemical Weapons Convention on the ground in both the US and Russia.

We also very much enjoy coming to The Hague and dealing with the legal aspects and some of the other international aspects, but we spend our time on the ground in the United States, in Russia and elsewhere, trying to actually get the weapons destroyed.

What I’m going to try to do today is very quickly, in the few minutes that we have, give you a very quick status of where the United States stands. Sergey has already talked about where the Russians today stand and then I’ll try to draw on some issues and conclusions that I think will complement what Sergey Baranovsky has said.

We have, as you know, nine stockpiles in the United States. You’ll see here that in fact the geographic distribution is quite wide. One of these, of course, is on Johnston Atoll in the Pacific. You’ll also see that most of the stockpiles range anywhere from two, three, up to twelve per cent of the overall thirty-one thousand American tons. The only exception to that is in Tooele, Utah. Tooele is probably the largest stockpile in the world, comprising about forty-four per cent of the American chemical weapons stockpile.

Now where do we stand with the destruction? The game plan now is actually for nine on-site destruction facilities. This was not the original plan. Go back fifteen, twenty years ago, the original plan was in fact to have regional, centralized destruction facilities very similar to the Russian programme. We suddenly realised that in fact the transportation of these hazardous weapons would not be permitted and was really very impractical to undertake. So the United States agreed a long time ago to undertake on-site destruction, with very little transportation; we’ll talk a little bit more about that later. Of those destruction facilities five of them are incinerators. The first prototype incinerator was Johnston Atoll. We have a working incinerator in Tooele, Utah and three more now under construction in Oregon, Alabama, and Arkansas. We also have four neutralisation or alternative destruction facilities under construction in Maryland, Indiana, Colorado and Kentucky.

We’ve destroyed about two thousand tons, give or take a few tons on Johnston Atoll. The Johnston Atoll stockpile has now been completely destroyed, as you know; these were U.S. stockpiles moved secretly from Okinawa and Germany several decades ago.

The issue now with Johnston Atoll, of course, is that we have to close the facility and the interesting part about that I think is the closure process. We’re finding that this facility is much more difficult and much more complicated and expensive than we ever believed to begin with to actually decontaminate and disassemble now. So Johnston Atoll is closed for weapons destruction, but it is still in fact burning material that could very well be contaminated with live agent that for whatever reason did not get destroyed during the destruction process. There are many questions around the closure process for demilitarization facilities about which we could talk for hours.

Prior to serving in the House, Dr. Walker was Acting Director of the Peace and Conflict Studies Program at the College of the Holy Cross in Worcester, Massachusetts. A political scientist specializing in foreign and national security policies, he holds a Ph.D. from the Massachusetts Institute of Technology, an M.A. from the Johns Hopkins School for Advanced International Studies, an A.B. from Holy Cross, and an advanced honors Russian language certificate from the Defense Language Institute of the West Coast. He also completed a two-year Post-Doctoral Fellowship at Harvard's Center for Science and International Affairs.

4 Paul F. Walker is Director of the Legacy Program of Global Green USA, an international effort focused on weapons stockpile demilitarization, military toxic waste cleanup, and other legacies of the Cold War. Global Green USA is the American affiliate of Mikhail Gorbachev’s Green Cross International in Geneva, Switzerland. Walker was formerly a Professional Staff Member of the Armed Services Committee in the US House of Representatives where he served as Senior Advisor to the Chairman and the Committee.
Some six thousand tons have now been destroyed at Tooele, Utah, so the United States has made really considerable progress in CW destruction. There’s somewhere between twenty and twenty-five per cent of the American stockpile that has already been destroyed to date.

Now we have three additional incinerators very close to operation. We have one in Umatilla, Oregon; a second in Anniston, Alabama; and a third in Pine Bluff, Arkansas. Regarding the four neutralisation facilities you see on the map, one is very close to operation in Aberdeen, Maryland to destroy a relatively small mustard bulk agent stockpile. A second one is under construction in Newport, Indiana, a larger VX bulk nerve agent stockpile. Two are in the planning and preconstruction phase at Pueblo and Blue Grass. Pueblo, Colorado and Blue Grass, Kentucky are the two sites where the Governors warned, “you will not in any way build an incinerator in my State.” So we knew that in Pueblo and Blue Grass we had to use some other technology instead of incineration.

Now let me talk a little bit about destruction schedule. The top row in the slide lists four dates which were earlier projected end points for full destruction of the American stockpile. The first one I could find was in 1994. There may very well have been earlier dates, but we projected in the 1980s that we would destroy 100% of our stockpile by 1994. The next one I could find was 1997. The third projected target was 2001, and the fourth was 2007, the CWC deadline. There no doubt have been some interim dates as well, but the point I want to make here is that the schedules for CW abolition continue to slip dramatically to the right.

The other big issue as far as the United States and Russia are concerned is cost. If you go back to the 1980’s and look at our original cost estimates, it was two billion dollars. Two billion dollars and we’d destroy the stockpile by 1994. I remember only three years ago that we were estimating fourteen billion dollars and the Programme Director in the United States was saying, “I’m working hard to get the cost down to eleven billion.” The current estimate for U.S. chemical weapons destruction, as I think our delegate Steve Rademaker noted the other day at the OPCW, is twenty-four billion dollars. It’s really over twenty-five billion now and climbing still; I would be not surprised if we hit thirty billion dollars in the near future. We have nine demilitarization facilities, so you can estimate about three billion dollars or more per facility in the United States.

The other point I want to make is to mention the current status is our non-stockpile chemical weapons problem. We have a large number of so-called “non-stockpile” or buried chemical weapons, which I believe do not come under auspices of the Chemical Weapons Convention until we excavate them; they then become old chemical weapons.

You can see that in almost every state of the United States, including Alaska, Puerto Rico and the District of Columbia, there are sites where we suspect we have old buried chemical weapons. We have over two hundred suspected burial sites, depending on how you calculate that number. Today it’s 39 States. Five years ago we claimed 33 States. It continues to grow and grow and grow as we look at past documentation. Even Puerto Rico and the District of Columbia are included. When we find non-stockpile weapons, depending on the condition of them, we ship them to Pine Bluff, Arkansas or Tooele, Utah for later destruction. The biggest site discovered so far has been in downtown Washington D.C. where several years ago we accidentally found chemical weapons in the backyard of the South Korean Ambassador’s home; in fact we continue now to test properties in the Spring Valley area. We’ve tested fourteen hundred and seventy-nine of sixteen hundred and two properties. You can imagine what people think about this as far as real estate values are concerned. Of those sites, about 10%, some 147, have tested above twenty parts per billion for arsenic. We’ve found six hundred and sixty-seven pieces of ordinance, including twenty-five munitions – old World War I mustard weapons for the most part and a hundred and one bottles of chemicals.

Now let me just run through a couple of programmatic issues and then I’ll conclude.

1 MAY 2003
A big issue is facility location. We find this in both the United States and Russia. This is really a debate as to whether your destruction facility will be on-site or whether it’s established off-site somewhere.

In Shchuch’ye, as Sergey has talked about, we’re actually shipping the weapons 20 kilometres from the stockpile to the destruction site, which is a whole other risk issue. In the United States we try to build the facilities contiguous with the stockpile – within a few hundred yards so that the risk of shipment is not too high.

Another major issue is community involvement. I can’t emphasis enough how serious it is, how important it is to the programme to involve the local community from the start. From the very beginning. Don’t wait until you think everything’s fine and there are no problems. Address the community, be open and go to them right from the start of a project; that’s how we in fact try to facilitate such projects.

We’ve been called into many destruction programmes at the eleventh hour. Our good colleagues in the US Army and the Cooperative Threat Reduction Programme will call us, for example, three years after a programme is initiated and say, “the citizens are protesting, they won’t give us the permit, they won’t allocate the land, can you help us?” “Can you save the programme?” Our response is – “you’re three years already down the road; next time please call us when you begin this programme and think of the process of destroying these weapons, in addition to simply the technology of doing it.”

Another issue is emergency preparedness. This picture is actually our Shchuch’ye Outreach Director, Galina Vepreva who is shown here visiting Tooele on a training programme on emergency preparedness that we prepared last year. You’ve got to think about emergency preparedness. This has stalled several American sites many months, perhaps even years. Evacuation routes. Gas masks. Protection suits. What do you do about children and schools? We’ve over-pressurised schools. Put bullet proof glass in schools. There’s a variety of important issues here.

Technology choices also have to be made. You have to involve the community in what technology you choose. It’s very important. We have found in the United States that several communities, as I noted earlier, have absolutely refused incineration. Yet if you had the Army going in one direction alleging incineration is the only way, and you had communities going the other way saying “not in my State,” then how do you bring those two parties together? That’s what we’ve tried to do – network all stakeholders and produce a workable solution for all. We began an alternative non-incineration development programme about six years ago and today we actually have four teams of alternative technologies which are being implemented at at least four sites.

Environmental impacts, as Sergey has talked about, are also a key issue. These pictures are some of the endangered species on Johnston Atoll.

And finally, some key recommendations. Have a whole toolbox of technologies—at least for Russia and the United States. I don’t know a great deal about the programme in India, Albania or another State Party, but have at least a toolbox of technologies, which gives you options for weapons destruction.

Public involvement must be crucial to your programme no matter how you move forward. Community investment is necessary. These communities feel themselves under privileged. They’ve borne the burden of these stockpiles for decades, have received very little for it, and they now want some payback in both the American and Russian cases. This is actually a big challenge. How in fact do you make some investment in these communities to make them more sustainable over the longer run?

Be transparent. If you want your programme to move forward, talk about the problem now, not later. Excess emissions or toxic waste which you’ve got to get rid of, or endangered species you’re going to hurt, or whatever the issue might be, bring it upfront and be transparent about it. It’ll make the project much easier.

Also, be flexible on schedule. I know for the Chemical Weapons Convention this is a difficult issue concerning the 2007 and the 2012 abolition deadlines, but I think it’s extremely clear, we all recognise neither the United States nor Russia will meet the 2007 deadline and Russia has already asked formally for their five-year extension to 2012. I expect the Americans will do the same sometime in the next couple of years.

I’m extremely sceptical either country will meet 2012 and I say that in all seriousness, having seen the schedules of every stockpile site. The construction, systemization, permitting, and operating schedules of several of the sites will inevitably stretch out beyond 2012.

So let me end there. I look forward to your questions. Thank you.
STATEMENT FOR OPEN FORUM ON ‘THE CHALLENGES TO THE CHEMICAL WEAPONS BAN’,
THE PEACE PALACE, THE HAGUE, 1 MAY 2003

Nicholas A. Sims

NATIONAL IMPLEMENTING LEGISLATION

Article VII, on National Implementation Measures, requires States Parties to do various things, of which the most far-reaching is the General Undertaking (in paragraph 1b) to

"not permit in any place under its control any activity prohibited to a State Party under this Convention". (Emphasis added.)

In other words, their national implementation must be sufficiently comprehensive to ensure that all CWC prohibitions are respected in every place under their control. To "not permit", on this construction, requires States Parties to be active, not passive. I regard this subparagraph (1b) as equivalent in stringency to the prevention criterion which is coupled with prohibition in Article IV of the Biological and Toxin Weapons Convention, although the word prevent is not used here. It sets a very high standard of national implementation: necessarily so, in view of the gravity of the threat to humankind which the CWC, like the BTWC, has been designed to counter.

Part of the national implementation required of each State Party consists of designating or establishing a National Authority and putting into effect other provisions governing relations between the State Party and the OPCW (paragraphs 4-7 of Article VII). Another part consists of assigning the highest priority to ensuring the safety of people and to protecting the environment (paragraph 3).

In this statement, however, I shall confine myself to the specifically legislative requirements of Article VII. These are to:

"prohibit natural and legal persons anywhere on its territory or in any other place under its jurisdiction as recognized by international law from undertaking any activity prohibited to a State Party under this Convention, including enacting penal legislation with respect to such activity" (paragraph 1a);

"extend its penal legislation enacted under subparagraph (a) to any activity prohibited to a State Party under this Convention undertaken anywhere by natural persons, possessing its nationality, in conformity with international law" (paragraph 1c);

"cooperate with other States Parties and afford the appropriate form of legal assistance to facilitate the implementation of the obligations under paragraph 1" (paragraph 2)

Penal legislation is not an optional extra. It is a clear and explicit obligation. And so is the obligation to inform the Organization of the legislative and administrative measures taken to implement this Convention" (paragraph 5).

Status of national implementing legislation

The Legal Adviser's Office of the OPCW Technical Secretariat has compiled reports on the fulfilment by States Parties of their legislative obligations under Article VII. For example, paragraph 3.6 of the OPCW Annual Report for 2001 reported that

"As of 31 December 2001, 59 States Parties (41%) had fulfilled their obligation under Article VII, paragraph 5, of the Convention to inform the Organisation of their implementing measures. This reflects a three percent increase over last year's figure of 38%. Thus, for 59% of States Parties, the Organisation does not formally know what their legislative situation is with respect to the implementation of this important requirement of the Convention."

Nicholas A. Sims is a Reader in International Relations in the Department of International Relations, London School of Economics and Political Science (University of London). His publications on the Chemical Weapons Convention and the earlier diplomacy of chemical disarmament go back to 1972. His books include International Organization for Chemical Disarmament (Oxford: Oxford University Press, 1987), which was No. 8 in the 'Scorpion' series of SIPRI Chemical & Biological Warfare Studies. He also contributed to The Hague Academy of International Law 1994 Colloquium papers published as Daniel Bardonnet (ed.), The Convention on the Prohibition and Elimination of Chemical Weapons: A Breakthrough in Multilateral Disarmament (Dordrecht: Martinus Nijhoff, 1995).
Since then, the number of States Parties making a submission in compliance with Article VII, paragraph 5, has increased to 82 (55%), an increase of 7% over October 2002 and of 14% over December 2001. I take this update and the information that follows, correct to 17 March 2003, from Fiona Tregonning's review — 'Developments in the OPCW: Progress in The Hague, Quarterly Review No.41', in the latest issue of the CBW Conventions Bulletin, No.59 (March 2003) published by the Harvard-Sussex Program on CBW Armament and Arms Limitation. The interpretation placed upon it is of course mine not theirs.

This reported increase to 55% is certainly to be welcomed. However, it still leaves 45% of all States Parties — that is, 68 states — in non-compliance with this obligation. 45% is a very high percentage, five years in to the life of the Convention, especially given all the assistance and encouragement provided to States Parties by the Technical Secretariat and its Legal Adviser's Office.

Further analysis by the Legal Adviser's Office has also revealed that not all CWC prohibitions are adequately covered in every case. So the proportion of States Parties which have adequate legislation in place is significantly lower. There is, in other words, a question-mark over the quality of legislation as well as its quantity.

Only 42 States Parties (28%) are known to have legislation covering all key areas. For 108 States Parties, there is either no legislation in place, or gaps in legislation, or an unknown legislative situation.

Examples of insufficiency have emerged from responses to OPCW legislation questionnaires. For example, out of 86 States Parties responding, only 57 replied that they were enforcing the end-user certificate requirement for transfers of Schedule 3 chemicals to States not party to the Convention, as required by the Verification Annex, Part VIII, paragraph 26.

Even more remarkably, in view of the explicit requirement in Article VII for the enactment of penal legislation, out of those 86 respondents there were still 11 which reported having no legislation in place to enforce any of the obligations arising under Article I of the Convention — leaving one to wonder how many of the non-respondents have to be added to those eleven.

Taking stock five years on from entry into force, we need to declare unequivocally that this state of affairs is unacceptable. It endangers the health and the effectiveness of the Convention. I shall therefore offer a brief account of why it is important to put matters right, addressing three of the purposes of national implementing legislation, and why comprehensiveness of scope, in respect of chemicals and in respect of people, is essential. Finally I propose a constructive way forward for this Review Conference.

Purposes of national implementing legislation

National legislation under Article VII serves several purposes, of which three are of key importance.

First, it empowers the National Authority and the OPCW. It imposes obligations on people to cooperate with the National Authority and supply information to it for onward transmittal to the OPCW. It limits chemical transfers to those not prohibited by the Convention. It enforces, in advance, that all OPCW inspectors will be enabled to carry out their various verification tasks under the Convention without delay or hindrance, and sets out their necessary privileges and immunities, in readiness for when they arrive.

Second, it provides for the detection, prosecution and punishment of offenders falling within the jurisdiction of each State Party and of offenders possessing its nationality. Here Article VII legislation not only extends the prohibitions in the CWC from the international level to the national level: it gives them explicit legal standing and provides the national framework for their enforcement. Prohibition without enforcement is not enough: it would fall short of the criterion of prevention which, as already noted, is implied by the General Undertaking in paragraph 1b.

In recent years, anxieties over toxic chemicals falling into terrorist hands have augmented the original motivation for the CWC, which had to do rather with the dangers emanating from chemical weapons in the possession of governments. It is important to recognize that national implementing legislation is directly relevant to the prosecution of suspected chemical terrorists. In the United Kingdom, for example, criminal charges have been brought under the Chemical Weapons Act 1996 – to which I shall return later – following the discovery of traces of ricin in premises in north London. So the legislation required under Article VII provides the framework and the means for defending society against chemical terrorism, in addition to its original function of ensuring that governments fulfil the national implementation of chemical disarmament. Both aspects are integral to the enforcement of the General Undertaking, incumbent on every State Party, to

"not permit in any place under its control any activity prohibited to a State Party under this Convention."

The third purpose is more nebulous than the first two. It depends upon a particular view of the value of treaties and of how expectations of compliance with treaty obligations are embedded in normative structures at the national level. On this view, national legislation ties the CWC into national legal systems and contributes to the strengthening of compliance by expanding the constituency which has an institutional interest in the success of the Convention. It also builds the treaty regime flowing from the CWC into normative structures at the national level, in the form of rules and expectations and procedures for upholding them. These rules, expectations and procedures in their turn uphold their counterparts at the international level. They strengthen the international treaty regime. They help, even if only at the margins, to ensure its survival by constituting one more obstacle which would have to be overcome if the Convention were to come under attack.
There is a relationship of mutual reinforcement between the international treaty regime of the CWC and the national legal regime established by each State Party in accordance with Article VII. At their best, each reinforces the other.

Prescription and practice, too, should actively reinforce each other. Their relationship should be one of complementarity.

If this sounds very abstract and idealistic, let us recall the grand sweep of the Convention. It aims at nothing less than the worldwide abolition of chemical weapons, comprehensive, verified and sustained in perpetuity. That is the magnitude of the challenge to every State Party.

Comprehensiveness of scope of legislation

Prohibitions in national implementing legislation need to be formulated with great care, to be co-extensive with the prohibitions in the CWC. If that is not done, the obligations of Article VII are not wholly fulfilled. This in turn weakens the overall regime. States Parties may even, in effect, lay themselves open to charges of non-compliance, thereby inviting challenge.

(a) in respect of chemicals

A later contribution in this Open Forum will be devoted to the General Purpose Criterion (GPC), but I want to emphasise here that the GPC must be applied to national legislation if the latter is to succeed in being co-extensive with the CWC prohibitions. Otherwise it is unlikely to be fully comprehensive in terms of the scope of its coverage of chemicals.

States Parties have to work out how they give effect to this in practice, in accordance with their respective constitutional processes; but it does mean that they must be alert to the risk of criminal activity involving toxic chemicals which are not on any Schedule. It was never the case that the CWC would be confined to Scheduled chemicals. The Schedules were included for other reasons, notably the differentiated intensity of verification (of CW non-production) and the related information requirements. Because of the GPC, States Parties need to ensure that their national legislation enables them to detect, prosecute and punish any one of the prohibited activities with regard to any toxic chemical, as defined in Article II of the Convention, or precursor thereof, unless the purpose of the activity is not prohibited under the Convention, and the types and quantities of the chemicals involved are consistent with that purpose.

This requirement for comprehensiveness is reinforced by the obligation laid upon each State Party in the first part of Article VI, paragraph 2: namely, that it

"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."

Here we see an Article VI obligation reciprocating the key provisions of Article I and Article II which together enshrine the General Purpose Criterion.

(b) in respect of people

There is another aspect to comprehensiveness of legislation, and that is its scope with regard not to chemicals but to people. It is important not just to have penal legislation in place but to ensure that it covers every person it should cover. I take an example from national experience in the United Kingdom. There was an issue of scope in this sense when the UK Government started a public consultation over its proposed legislation in 1995. Vigorous debate ensued and one outcome was the addition of a clause to the Bill which is now Section 37 of the Chemical Weapons Act 1996. Proponents of Section 37 were concerned to make it explicit, beyond argument, that government service could never be invoked as an excuse for contravening the Act. They insisted that government officials, including defence scientists and members of the armed forces, as well as the politicians to whom they are answerable, should be bound by exactly the same obligations as the rest of the population. Section 37 gives effect to this aspiration. The vital words are in paragraph 3: "the provisions made by or under this Act apply to persons in the public service of the Crown as they apply to other persons."

This is a principle of comprehensiveness which ought to apply globally, whatever the particular way in which the laws of different States Parties express it. It may be of interest here to recall that the relevant Australian legislation in 1994 and Canadian legislation in 1995 encouraged those of us in the United Kingdom who argued in favour of what is now Section 37 to insist that it could indeed be done. Yet constitutionally those three countries exhibit differences as well as similarities. In the end, a UK precedent (the Radioactive Substances Act 1993) was used as the model for drafting the clause, but the experience of other States Parties sharing a common-law tradition was a distinct encouragement.

In Australia, Section 6(1) of the Chemical Weapons (Prohibition) Act 1994 provides that "This Act binds the Crown in all its capacities"; while, in Canada, Section 5 of the Chemical Weapons Convention Implementation Act 1995 reads: "This Act is binding on Her Majesty in right of Canada or a province."
Whatever the constitutional position and whatever the legal tradition of a particular State Party, the important thing is that the scope of its national implementing legislation must be comprehensive. Quality matters, as well as quantity of legislation. Laws which fall short of comprehensiveness, whether in respect of chemicals or in respect of people, fall short in quality.

The way ahead

I conclude with a proposal for a constructive way forward for this Review Conference.

Characteristically, the Final Declarations of review conferences for multilateral treaties contain exhortations, as States Parties encourage one another to implement the treaty in every aspect. I hope that, in this hortatory mode, the Final Declaration of this Review Conference will emphasise the importance of paragraphs 1, 2 and 5 of Article VII and state the Conference's understanding of what all States Parties need to do in order to implement them fully.

Specifically, I hope that it will include seven exhortations in this area:

First, that States Parties encourage one another to legislate without delay, if they have not already done so.

Second, that every State Party should check its legislation for adequacy in the light of the qualitative analysis by the Legal Adviser's Office of the OPCW Technical Secretariat to which I referred earlier. This analysis demonstrated a worrying gap between the percentage of States Parties which have legislated and the percentage of States Parties whose legislation is adequate to cover all the requirements of the Convention.

Third, that States Parties should ensure that the scope of their legislation is sufficiently comprehensive, in respect of coverage of chemicals on an all-embracing basis to match up to the demands of the General Purpose Criterion of the Convention.

Fourth, that States Parties should ensure that the scope of their legislation is sufficiently comprehensive, in respect of coverage of people, to encompass government officials and defence scientists, armed forces personnel and the politicians who instruct them, in order to leave no doubt that they are all subject to its obligations and its penalties equally with the rest of the population.

Fifth, that States Parties should cooperate actively with one another to block any gaps between their respective jurisdictions which might, if left uncorrected, be exploited by those who take an unhealthy interest in chemical weapons out of terrorist or other motives: a danger of which we are even more acutely aware now than when the requirement to offer legal assistance was drafted in Article VII, paragraph 2.

Sixth, that States Parties should keep the OPCW fully informed of the legislative and administrative measures they have taken to implement the CWC and of how these have been strengthened as necessary over time.

Seventh, that the Technical Secretariat should continue to provide analytical status reports to the States Parties on the qualitative as well as the quantitative fulfilment of Article VII for the consideration of the Conference in its regular sessions, and that the Conference should accord these reports thorough scrutiny with a view to achieving universal, and effective, implementation of the Convention within all States Parties.

Finally, if any State Party claims that more time is needed, the onus is on that State Party to explain why — and to specify the particular contribution the OPCW can make to speed up its legislation, in the framework of this international co-operative endeavour which benefits us all.

Thank you for your patience and your attention.

Thank you Mr Chairman.

First of all I would like to thank the Organisation for having invited the International Council of Chemical Associations (ICCA) to address this forum meeting. I also would like to particularly thank Director-General Pfirter for his very kind words when he opened the Conference at the beginning of this week and stressed the role that industry has played in the setting up and the implementation of the Convention.

Indeed from the beginning, chemical industry has strongly supported this Convention and my message today is basically that we continue to do so. We are unwaveringly supporting this Convention.

ICCA is the International Council of Chemical Associations. We represent roughly 70% of world chemicals production. So from all the regions as you can see, North America, South America, Japan, Australia, New Zealand, South Africa and Europe are part of ICCA. ICCA is a virtual organisation which does not have its own Secretariat, with the Secretariat rotating between the major member associations of ICCA.

Why are we supporting so obviously the Chemical Weapons Convention? Well this commitment stems from our Responsible Care programme. Responsible Care is a worldwide voluntary initiative of the chemical industry and its aim is to continuously improve our health, safety and environmental performance. We try to demonstrate our progress in this respect by issuing on a regular basis reports and those of you who have visited the Exhibition Centre will have found examples of these reports, along with other voluntary initiatives that have been undertaken by the industry.

What are our key positions with regard to the Chemical Weapons Convention? Well, first and foremost, we consider that the objective of the CWC is to rid the world of existing chemical weapons and chemical weapons related facilities. That is the basis for our support and we fully subscribe to that objective.

When we see, however, the status of national implementation we do have some concerns. There is clearly a lack of national implementation: the figures vary from 50% to 60%. The quality of implementation is also very varying and this is a major concern for us. Why? Because the chemical industry is a global industry and we are engaged in worldwide production. Multinational companies produce chemicals in several parts of the world and if there is insufficient or disparate implementation of the Convention, this leads to problems. Think of the differences in declaration. Think of differences for instance in mixture rules. For a multinational company these create nightmare scenarios since the basic question that will arise is what rules should industry comply with? Therefore, uniform declarations are a key thing for us.

The previous speaker also mentioned the word universality. It’s of course evident for us that all countries have to play by the same rules because if they don’t where do we stand? We want to make all these contributions to a successful Chemical Weapons Convention, but if for some reason it’s not implemented in a universal manner, all our efforts in that respect are in vain. That’s why we also are in favour of spreading the discrete organic chemicals (DOCs) inspections more equitably around the globe, in accordance with the mandate and provisions of the Treaty.

Now of course, the Chemical Weapons Convention was negotiated mainly at the end of the 80s beginning of the 90s and there have been changes in the industry and those changes are not sufficiently or not wholly reflected in the present Treaty text.

When we talk about high environmental safety standards you should know that we are one of the most regulated industries. Now you, of course, deal with the chemical weapons side of it. We are also confronted with environmental, health and safety type of regulations. There are many of these regimes worldwide that we are co-operating with and our objective is to be part of the solution and not to be regarded as the problem.

---

6 René van Sloten read socio-economic history at the University of Groningen, the Netherlands, followed by post-graduate studies in international relations at the Institute of International Relations Clingendael in The Hague and in European public administration at the College of Europe in Bruges. He joined the European Chemical Industry Council in 1990 as sector group manager, taking up the position of Head of Trade Policy in 1995. He is presently Director of International Trade and Competitiveness and, as such, is closely involved in international trade negotiations affecting chemical industry.
Due to these regulations we nowadays are witnessing extensive safety precautions, double walled piping, restricted access, medical service, etc. These are also a concern for employees, especially for people living near the plants and this is not an indication that there is something strange going on or that we are involved in chemical weapons production and so on. We are producing chemicals for the benefit of mankind. To help achieve progress. Everything in this room would be unthinkable without a chemical industry. We produce thousands of products, hundreds of thousands of products that benefit society.

So what does this mean? It means that if you come to a plant as an inspector, the pre-inspection briefing may take more time.

There is sophisticated process control nowadays. And all this information you can find in the paper that we have distributed. Nowadays a plant is managed actually not by hundreds of people, but only by one man and a dog. The dog is there to ensure the man doesn’t fall asleep! Everything is regulated from a central computer room. And those of you who have had the occasion to visit such a plant will agree how sophisticated that is. How futuristic that is. It also means that it puts high requirements on the Inspectors because their technical knowledge has to be very high. It also means fewer sampling points for instance.

Another area is the development that you see in the Chemical Industry. Previously one plant site was under the control of one company. Now that has changed in the present times. On one plant site you can have ten different plants and the ownership of ten companies and all this makes it even more complicated since the ownership of those Plants on that Plant site can change from year to year.

So it means that a Plant Manager has total control over the Plant Site. It means also Contracts between the Plant Manager and the business units on the Plant Site.

The technical trends and certification relate to items such as good manufacturing, processing and good laboratory practices. There is also the requirement to have good documentation practices within the company. Here’s a synergy because you have to keep records. It’s also important, since it facilitates the implementation of the Chemical Weapons Convention.

The market trend is globalisation. Now we have Plants worldwide. You can have a situation where one plant produces effectively for the whole world, and it is no longer in different parts of different countries. There is a high degree of standardisation. Companies want to work by the same methods worldwide.

The increase in trade volume is staggering. Nowadays chemical production reaches one point seven trillion US dollars annually and roughly one third of that is traded internationally. Think of that number. The tonnage of chemicals moving around the world. So you have an interest to focus your efforts on those chemicals that really form a problem, but not on the rest. The rest you want to leave unfettered because the trade brings development. Many countries subscribing to the Chemical Weapons Convention want to promote their industry and a chemical industry is the basis to all other industries in your countries. Without chemical industry they cannot develop. So production has shifted to non-traditional countries...Asia, Latin America and trade is global.

Companies are specialising today. They are outsourcing certain things. So this means also that a vertical integration may become, let's say, less and less important. That means that different companies are involved in the production, processing, consumption, which complicates again compliance with the Chemical Weapons Convention. It makes the situation more complicated.

There has been a wave of mergers and acquisitions since the beginning of the 90s. So, reporting structures have changed. It has made the task of compiling with aggregate national data more complex. There’s also a risk of loss of expertise since, the people that are involved in the reporting and preparing the declarations, move on and are no longer there. All these things are happening.

Some key positions I would like to stress that are maybe of particular relevance for the Review Conference. We see the routine inspection as a major part, as a confidence building measure and we urge that it remain that way. Challenge inspections are there for another purpose, but if you cannot do a challenge inspection it should not mean that the regime of routine inspection should be strengthened and we believe that the CWC offers tools for pursuing these concerns over non-compliance.

Schedule 3 chemicals are, of course, also under discussion. Now our plea is that there would not be an automatic ban of schedule three exports to Non-States Parties. There should be a study on the effectiveness of implementation by States Parties of the end use certification system, but I should first and foremost stress that industry all along has said that if there is a demonstrated abuse of a chemical, we are open to discussion to consider stronger measures on such chemicals.

Confidential Business Information. I think the importance of that cannot be stressed enough. There are numerous references in the Convention to this important issue, notably in the Confidentiality Annex. The organisation has demonstrated to be able to safeguard confidential information. I should really compliment the Organisation; its handling of confidential information is exemplary. We have never had incidences where there was loss of confidential business information. Of course, issues around confidentiality arise during inspections. They are the subject of discussion between the Inspection team and the company, but these can always be resolved in the end.

Now in conclusion, the ICCA, the worldwide chemical industry remains committed to this Convention. We are a partner and a resource and we really urge you, also the Review Conference, to improve your implementation of the Convention and to involve us in the further improvement, and further effectiveness. Use us as a partner. Use us as a resource. We are there to help you. Thank you.
Moderator: Thank you very much for that most useful summary. One of the things, which were felt to be important for this review, was a consideration of the impact of scientific developments on the Convention. The International Union of Pure and Applied Chemistry was particularly brought into this issue and in order to tell us the results of their work in looking at the impact of such developments we have to speak to us—Christopher Murphy. He is a Programme Officer at the US National Academy of Sciences and his most recent work has dealt with the critical analysis of detectors for chemical warfare agents, but he’s in fact going to tell us about the broader question of what IUPAC has been up to on our behalf. Thank you.

Christopher K. Murphy7, International Union of Pure and Applied Chemistry

Impact of Scientific Developments

Your Excellency Director-General, Mr Chairman and Ladies and Gentlemen. I wanted to give you the IUPAC briefing dealing with the issue of the impact of scientific developments on the Chemical Weapons Convention. By way of introduction for those of you unfamiliar with IUPAC, it is the International Union of Pure and Applied Chemistry. Its members comprise National Academies or Chemical Societies of forty-four countries, which together account for 85% of the chemical industry worldwide. IUPAC’s mission is to deal with the scientific underpinnings of chemically related problems of international significance. Some of you who are familiar with IUPAC may be familiar with the work they have done on international standards for chemical nomenclature. Also, for a number of years IUPAC had an ad hoc committee that dealt with technology for chemical weapons destruction.

The IUPAC workshop in Bergen, Norway had 79 participants representing 34 countries. They included experts in organic synthesis, industrial processing and analytical chemistry and there are also experts in chemical weapons, including OPCW officials and, in addition, there were representatives from the National Authorities.

The format for the workshop included a series of lectures by experts on various technological issues related to the Chemical Weapons Convention, interspersed with discussion groups where issues and items were debated and consensus was found. It is important to stress that the resulting findings, conclusions, and recommendations in my talk are the result of the discussion and agreement of the participants in the workshop.

A number of key issues were addressed as a result of this workshop, and I will speak about each, except for the last one, the destruction of chemical weapons. That issue, while discussed, was not a primary focus of this particular workshop. Just prior to the workshop IUPAC’s journal Pure and Applied Chemistry produced a report written by Graham Pearson, who is sitting at the podium, on destruction technologies. I refer the audience to that particular issue. Again, while destruction technologies were not a focus of the Bergen workshop, the issue of destruction of chemical weapons did come up briefly in terms of remote monitoring for destruction.

These are the issues that were stressed. The first was challenges to the CWC and the new synthetic methodologies that might provide routes to both scheduled and other toxic materials. It is important to note that the CWC does not discriminate between the method of synthesis for these compounds, so as new types of synthetic methodology come on-line it is important to be aware of them.

Also, there are new and different weaponisable chemicals that could be created through database mining. This refers to developments, mainly in the pharmaceutical and agrichemical community, where large numbers of new chemical compounds are synthesised in very small amounts and screened, producing large libraries of new chemical compounds. These compounds are screened for both positive therapeutic effects and also potential toxic effects. It is the information on the toxic effects of these new chemical compounds that potentially could be used for the development of these new chemical toxins.

Another issue identified at the workshop was the globalisation of the chemical industry. This results in modest sized batch facilities in many countries that could potentially be diverted for illicit purposes. This brings up the issue of the changing nature of the chemical plant, where instead of the large facility running continuously producing one or a small number of different compounds, smaller batch facilities may be run that can each synthesise a number of different types of fine commodity chemicals. These facilities conceivably have the potential to synthesise toxic or chemical weapons.

7 Mr Murphy is a Program Officer at the U.S. National Academy of Sciences. A synthetic organic chemist by training, Mr Murphy’s most recent work has dealt with a critical analysis of detectors for chemical warfare agents.
Finally, microreactors have enormous potential to produce substantial amounts of chemicals using a large number of very small facilities that run continuously. This again is something that does not resemble large chemical plants. These are very small reactors that contain only a few microliters of material but can produce chemical compounds at rates on the order of a microliter per millisecond, which translates to several liters per hour. Even though each of these microreactors produces a relatively small amount of material, the potential to have many tens or hundreds of these reactors running continuously in widely dispersed areas could possibly lead to clandestine production of significant amounts of chemical weapons or toxic materials without detection.

In response to these challenges the workshop participants noted that the general purpose criterion, which has been touched upon a number of times previously this afternoon, is a central strength of the Convention in the sense that it embraces all the toxic chemicals whether or not they are on schedules. To reiterate, it is the use to which these toxic chemicals are put and the amounts in which they are produced that is the issue, as opposed to the toxic chemicals themselves.

Another issue highlighted was a need to review the Other Chemical Production Facilities regime to ensure that it is effective in light of the new types of batch production facilities that may be hard to inspect and or detect.

Finally, another issue is that OPCW Inspectors must be aware of new chemicals that are available, along with new synthetic methodologies and new industry process trends.

A positive note is the advances taking place in analytical chemistry. There are improved versions of instruments that are currently available and should be provided to the Technical Secretariat. These include smaller, more portable, lighter GC/mass spectrum instruments that also have higher sensitivity. They may be more easily transported to an on-site inspection and give increased sensitivity as well when carrying out these inspections.

There are other currently available methods. For example, portable isotopic neutron spectrometers avoid sampling and in fact can analyse a chemical weapons munition without actually opening the shell.

There are advanced methods that are under development but are not likely to be deployable for a number of years. One I would like to stress is immunoassay, a very rapid method of analysis that utilizes the immune response to proteins and glycoproteins. The lead time for setting up such an analysis at present is about four months, so presently it is not useful for on-site inspections, but with continued development it may be in the future.

In terms of the status of analytical methods the workshop found that the problems in the inspections are more procedural and logistical than technological. Updating current analytical methodology by using this more lightweight and portable instrumentation should be adequate to support inspections.

There is an issue, however, with the increased sensitivity of these instruments. That is the concept of the practical zero to indicate the absence of substance. There is no explicit agreement in the CWC of what constitutes the “absence of substance”, and practically when working in the lab there are detectors that are in some cases capable of detecting down to the single molecule. In order to take into account the different sensitivities and potential different interpretation of analyses, an agreement on what constitutes zero must be part of the CWC.

In terms of professional development in the Technical Secretariat it was found that increased awareness of new chemicals and production techniques was essential. Also, the Technical Secretariat should take advantage of more portable and more sensitive analytical instrumentation currently available. Further, the Technical Secretariat should use new information and knowledge to make intelligent investments in new equipment, not only to determine the types of analytical methodology it will use, but also to ensure that investment in an analytical method that may be obsolete in a few years is not embraced.

This leads to the importance of education and outreach. This is a two-way street between the OPCW and the international scientific community. The OPCW should make the broader scientific community aware of their mission and goals. Likewise, the international scientific community should stand ready to provide periodic updates to the OPCW on the types of technological advances I have discussed. It is worth noting that that IUPAC and other organisations stand ready to assist the OPCW in providing updates on relevant science and technology.

In summary it is important to stress that new technology increases the danger of novel and surreptitious chemical weapons production for and by terrorists. Balanced against this potential threat, current and developing analytical chemistry methodology can provide valuable enhancement of OPCW inspection procedures. Also, the Technical Secretariat and National Authorities must maintain a continuing awareness of technological developments, and maintain a proficiency in applying the latest analytical methods. Finally, the broader scientific community stands ready to assist the OPCW in accomplishing its mission.

Thank you very much.
Moderator: So I thank Christopher for his report on behalf of IUPAC. Our last speaker before the coffee break is Graham Pearson, who is currently visiting Professor in International Security at the University of Bradford, but was before his retirement Director General of the United Kingdom Chemical and Biological Defence Establishment at Porton Down. He was Chairman of the IUPAC Working Party on Chemical Weapons Destruction Technology.

Graham Pearson
Department of Peace Studies at Bradford University: Impact of Scientific Developments

I would like to first of all say how very much I welcome the opportunity owed by this NGO Forum, but I do regret that unlike at the Review Conferences of the Biological Weapons Convention when NGOs have been able to make short statements in unofficial plenary sessions with the Chairman of the Review Conference remaining the Chair, this has proved too difficult to arrange at this [First Chemical Weapons Convention] Review Conference.

I want to talk to the Open Forum on advances in science and technology and, in particular, on maximising the security benefits to the First Review Conference. This was a workshop that I organised with Mr Jozef Bábkí from the National Authority of the Slovak Republic in Bratislava last September and I’m pleased to see there are half a dozen people in the room who actually participated in the workshop. Forty-one from sixteen countries and 40% of those participants came from National Authorities. There were two from the OPCW and we had four participants who were members, including the Chairman of the Scientific Advisory Board.

The workshop was divided into four sessions. The first one looked at the opportunities and challenges. The second looked at the effectiveness of the verification regime. The third looked at scientific and technological challenges and the fourth one pulled it all together to maximise the security benefits.

We started by recognising that the Review Conference is an opportunity to step back and review from a larger perspective. The aim should be to steer the regime for the future and that it was important for the Review Conference to avoid an overambitious agenda. In other words, to aim at what is achievable.

We recognised the importance of background papers both from the Technical Secretariat and from States Parties to help prepare for this Review Conference and we recognised also the importance of overarching national legislation with significant penalties for non-compliance in all State Parties.

Workshop inputs included insights into the Review Conference preparatory process. Scientific Advisory Board perspectives are respected by National Authorities around the world and we had the benefit of the UPAC workshop and its draft report as well as an industry perspective which René should have done if he could have got there but he had a very admirable substitute and the workshop really focused in two aspects. First, the effectiveness of the verification regime; and then, the scientific and technological challenges.

A general appreciation of the inspection regime had been successful and we focused very much on the Other Chemical Production Facilities (OCPFs). We recognised that they are important for the future, their methodology should be different and the selection methodology needs to be addressed. There’s a need to capture all of the relevant facilities and the question is, Is 24 hours long enough for an effective inspection? And reminded ourselves that the aims of the OCPF regime is the capability of the facility.

Concerns about the verification regime were that there was dangerous narrowing in some areas of the scope. A disproportionate effort on destruction. Article IV, Article V should have been done largely bilaterally. The OPCW have had to pick up that burden. There are logistical problems and challenges, inspections, restrictions on illusive inspection equipment and those at face value give a bleak prognosis for the future. We felt that the Review Conference needs to address these issues. Recall the purpose and object of the Convention and focus on the verification goals. Focus on what it can do for you rather than what it does to you.

On potential risks we talked about non-scheduled chemicals. Of the products the pharmaceutical industry, particularly in the toxins and the peptides of what the OCPFs could produce and a miniaturisation in production technology developments and we felt that from the outcome of the Review Conference should be more qualitative and flexible inspections, enhancing inspection effectiveness and recognising that Schedule 1 is not the be all and end all. Make that into a re-focus.

The OCPF regime designed to fill this gap of CW capable facilities and the creators of the Convention in their wisdom said deliberately review now at this first Review Conference and they knew what was in the Convention when they said that. It is

8 Graham Pearson is a visiting professor in international security at the University of Bradford, following his retirement from the British Ministry of Defense where he had served as Director-General of the United Kingdom Chemical and Biological Defense Establishment. Mr Pearson’s interests focus on strengthening international efforts to counter the proliferation of chemical and biological weapons. As Chairman of the IUPAC Working Party on Chemical Weapon Destruction Technology, Mr Pearson oversaw the publication of a major report providing a critical evaluation of chemical weapons destruction technology.
designed to be flexible to address these changing technologies. Recognised the growing concern about unscheduled chemicals and adopt a broader interpretation including biosynthesis and a greater emphasis on a consistent check approach and moving towards that and consistency with declared purposes.

As I said before, benefits and what it can do for us. Address the risks if the additional facilities are not captured and note that chemical terrorism concerns as well as safety and environmental are leading increasingly for regulators to hold information on the nature of materials and all facilities and their facets. A point which was made by René. I really think the Part 9 Regime should explore possible synergies.

On to the scientific and technological challenges. We focused on the biotechnology and mid spectrum agents. They are all chemicals. Almost all are not on the schedules. They can readily be produced in quantity and remember that for produce and use as a chemical weapon impurities are not a problem and drug delivery techniques which are becoming more and more available add to the challenge. Non-lethal weapons pose a serious risk to the Convention and I very much welcome what Ambassador van Wagner said this afternoon. The Review Conference should reaffirm the breadth of the Article I and Article II prohibitions. Article I’s ‘never under any circumstances’ applies to non-lethal weapons. The spectrum, just to remind you of the overlap in the middle, they are all chemicals in the middle.

The advances in chemicals, Novichox should they be added to Schedule 1. It is likely they would be included if the Schedules were being drawn up today. Non lethal weapons do not meet the criteria for riot control agents and the chemical products biotechnology industry have to be taken into account.

We’ve shared an increasing perception of risks from chemicals other than those on the Schedules, which re-emphasises the importance of the general purpose criterion which we’ll hear about from Daniel Feakes later on.

It is central to the health of the Convention. It is incorrect to believe that there are any gaps in the Convention. There is a potential disregard by non-lethal weapon programmes. States do have an obligation to implement the general purpose criterion and you need that overarching general purpose criterion in place to avoid a potential safe haven for the supply of terrorists and safe parties need to share their ideas on the general purpose criterion implementation.

So overall the Review Conference should focus on steering the ship. Focus on what really matters. The big issues. Avoid the temptation to address what can and should be done by the annual conference of State Parties and Executive Council, but yet recognise the reality of what can be achieved in two weeks and I would argue the central issue is the verification regime and its goals. So ten years on is the design doing the job? Remember determine for the sake of all mankind to exclude completely the possibility of the use of chemical weapons. You need to deal with those risks for the future. You need to be seen to steer the ship. Increasing risks from these unscheduled chemicals. How likely is it the Scheduled chemicals would be used today for breakout? My perception is this is becoming less likely and the Review Conference needs to address these dangers which will be present already, but will certainly be here in the future.

On the Schedules I don’t believe it’s time yet to amend, but it is important to reaffirm the ability to amend them and it could be time to start thinking about what criteria to use.

On the OCPF regime the first Review Conference had a deliberate remit to review that regime. You must be seen to have done that, not just continue to study and the general purpose criterion needs to reaffirm the central importance of it. Overarching national penal legislation embodying the general purpose criterion is vital and States Parties need to be seen to implement it.

So heart and soul but it is a neglected element yet it is our strongest protection against new agents.

Reporting of national legislation is abysmal as Nicholas said and I must ask the question of a campaign on overarching general purpose criterion national legislation parallel to the one in initial declarations. That would be a sign that you’re really gripping the problem.

Thank you very much indeed.
PANEL DISCUSSION
The Chemical Weapons Ban and the Use of Incapacitants in Warfare and Law Enforcement

Moderator: The first speaker after the break is Robin Coupland, who is going to be speaking on behalf of the International Committee of the Red Cross. He is a Member of the Royal College of Surgeons. He’s published many articles relating to the surgical management of war wounds and the effects of weapons and I know he feels very strongly that the CWC has to play its part in making battlefields… if there’s such a thing as a safe battlefield… is a reasonable philosophical concept, at least they should be less barbaric than they have been in the past. Robin.

Robin Coupland\textsuperscript{9}, International Committee of the Red Cross

Implications for International Humanitarian Law

Mr Coupland’s presentation was based upon his paper "Calmatives" and "Incapacitants" -- Questions for international humanitarian law brought by new means and methods of warfare with new effects?, reproduced below.

"Calmatives" and "Incapacitants"
Questions for international humanitarian law brought by new means and methods of warfare with new effects

Robin M. Coupland FRCS
Medical Adviser, Legal Division
International Committee of the Red Cross

This paper attempts to answer two questions:
1. What can an ICRC field surgeon bring to a legal debate on new means and methods of warfare with new effects?
2. The future seems to promise weapons which carry a minimal chance of killing the victim: wouldn't it be best to promote their use?

In answering these two questions, further questions arise for specialists who might be looking at the future intersection of the international law of arms control and disarmament and international humanitarian law.

1. What can an ICRC field surgeon bring to a legal debate about new weapons and methods of warfare with new effects?

The physical effects of weapons with which a field surgeon is most familiar are those resulting from force applied to the human body by explosions or projectiles, i.e., blast, bullets or fragments. Can we take these effects as a kind of reference point for consideration of new weapons and methods of warfare which might exert their effects in a different manner? We might be able to predict the effects on the proportion of the wounded who are civilians when a new munition which employs a particularly large or widespread explosion is used in a populated area. We might also be able to predict the effects on an individual combatant of a bullet which carries an explosive charge or a new rifle which fires more bullets at higher velocity. Likewise, the effect on whole populations of the widespread availability of small arms are comprehensible. But what about an eye-attack laser, or a foam which sticks the people to the ground and to each other or, as is apparently being researched, the means to alter brain function with electromagnetic waves.

The precise effects of such weapons - when used for real - in terms of mortality and residual disability or civilian deaths and injuries are not known with any certainty. But in contrast to weapons which injure by missile or explosive force, few medical people would recognise, let alone be able to treat such unusual effects. A few months ago, the above list of examples would have included calmative agents or aerosolized anaesthetic agents but now we have quite a good picture of what happens when such weapons are used following the events in the Moscow theatre siege last October.

\textsuperscript{9} Mr Coupland is the adviser on armed violence and the effects of weapons for the International Committee of the Red Cross. Following extensive experience as an ICRC field surgeon in Thailand, Cambodia, Pakistan, Afghanistan, Yemen, Angola, Somalia, Kenya and The Sudan, he has developed a health-oriented approach to a variety of issues relating to the design and use of weapons. He has focused on the effects of conventional and anti-personnel weapons and has initiated the “SirUS Project”, which has led to an examination of international legal responsibility of governments to review new weapons and weapons systems. Mr Coupland is a member of the Royal College of Surgeons and has published many articles relating to the surgical management of war wounds and the effects of weapons.
There are important implications of the distinction between weapons which injure by explosive and projectile force and weapons which injure by other means. In relation to the legal notions of superfluous injury or unnecessary suffering, indiscriminate effect and public abhorrence, Article 36 of 1977 Protocol I Additional to the 1949 Geneva Conventions reads: “In the study, development, acquisition or adoption of a new weapon, means or methods of warfare, a High Contracting Party is under an obligation to determine whether its employment would, in some or all circumstances, be prohibited by this Protocol or by any other rule of international law applicable to the High Contracting Party.” Surely, among the questions which should be asked when making this determination are: What is the mechanism of injury? Will the effects be recognisable? Will the effects be treatable? Will the effects be permanent? Does the weapon lend itself to cause indiscriminate effect? Is there something fundamentally abhorrent about the weapon and its effects? What are the effects of combining it with other weapon systems?

The reality is that the effects on people of a new weapon or method of warfare may be neither understood nor recognised by medical people. If they are not understood by medical people, are they likely to be understood by soldiers or, for that matter, designing engineers and diplomats or even, dare one say, lawyers? If these effects are not well understood, how are judgments about legality to be made in light of the prohibition on “superfluous injury or unnecessary suffering”? Is it not apparent that when the weapon or method of warfare in question does not injure by explosive force or projectiles, particularly careful multidisciplinary review is necessary to ensure its conformity with international law? In brief, when conducting a legal review of a new weapon or method of warfare, has the reviewer asked him or herself: Have I really thought through all the implications of its deployment?

2. The future seems to promise weapons which carry a minimal chance of killing the victim: wouldn't it be best to promote their use?

There is increasing interest in "non-lethal" weapons. The use of such weapons is foreseen for the full spectrum of both police and military activities: that is, from riot control to hostage release to international armed conflict. My comments today address mainly, but not exclusively, the use of "non-lethal" weapons in armed conflict.

The ICRC has a policy of referring to "non-lethal" weapons in quotation marks and as "so-called non-lethal weapons" in speech. The reason for this is that this class of weapon has not been adequately defined. No weapon when used and as a function of its design carries a zero risk of mortality among its victims. The same could be said for "lethal" weapons; no weapon, when used in battle and as a function of its design carries a 100% mortality. Lethality is a function of not only the design of a weapon but also how that weapon is used and the vulnerability of the victims. For reference, of people injured in battle by a Kalashnikov about 20% eventually die. The mortality associated with being injured by a hand grenade in an open area is about 10%. So when people talk about "non-lethal" weapons, it is not clear what is being referred to because it is not clear what a lethal weapon is. Any weapon has the capacity to kill; much depends on the context in which it is used. It is pertinent that 14 people died in the Sarin gas attack on the Tokyo subway whilst 45 survivors were proven to have been intoxicated. These figures provide comparable mortality figures to the use of a fentanyl-like agent in vapour form in Moscow last October.

The distinction between weapons which injure by explosive force and those which injure by other means is important. The weapons in the "non-lethal" category cause their effects on both sides of this distinction. For example, a rubber bullet causes its effects on humans by projectile force; by contrast, an eye-attack laser causes its effect by electromagnetic energy and a calmatative agent is simply a chemical agent. With respect to this last example, it is important to note that as a principle of pharmacology, the only difference between a drug and a poison is the dose; this means the effects of a calmative or incapacitant chemical agent will also depend on its means of delivery together with the environment in which it is delivered. Furthermore, to deliver an "effective" dose from a military perspective involves, inevitably, some people receiving a dangerous if not lethal dose.

It would be unwise to deny that "non-lethal" weapons may offer advantages for both military and police actions and could, theoretically, lead to a reduction of deaths under certain circumstances. Nevertheless, the legality of their use must still be reviewed. Whatever the weapon, whatever its purported effect and whether or not it is labelled "non-lethal," the ICRC is of the opinion that a "non-lethal" weapon, from the perspective of international humanitarian law, should be considered as any other weapon. There is nothing in international law that says "non-lethal" weapons fall in their own distinct category which excuses them from legal scrutiny. In fact two have already been prohibited in warfare; namely, blinding laser weapons and riot control agents. There has even been talk of "non-lethal" biological weapons the development and production of which would be a clear violation of the Biological Weapons Convention. The Moscow theatre event revealed a provision in the 1993 Chemical Weapons Convention which requires urgent review. The gas in question, if used in armed conflict, would have been a violation of this treaty; article 2.9d permitted its use for “law enforcement including domestic riot control.” Publicly, governments have expressed little if any concern about this. The spectre of toxicity being re-employed on the battlefield advances by one very significant and dangerous step.

When the ICRC has recommended legal review of each individual "non-lethal" weapon according to a States obligation under article 36 there is sometimes a regrettable and hasty assumption that we recommend a ban on all so-called “non-lethal” weapons. Questioning the classification or legality of certain such weapons has often led to a response "Well, I suppose you'd prefer we kill people!" or even on one occasion “So, the Red Cross thinks its better to kill people than to blind them.” To bring this debate to a more rational level, it is useful to consider what would happen if the perfect non-lethal weapon really existed. That is, a beam or energy form is deployed without any permanent effect which can incapacitate its victim by simply eliminating all movement of the body for, say, 30 minutes from the instant of attack. Even this throws up some critical questions for international lawyers. Imagine a soldier entering an area in which enemy combatants have been incapacitated; they are standing or lying still with their weapons at hand with their eyes fixed on the sky. There is limited visibility. How will the attacking soldier, when rushing into
attack, know his enemy has been incapacitated? The most likely scenario is that the soldier will shoot because he or she is trained to do so reflexly in battle. In other words, being incapacitated could simply serve to increase the vulnerability to attack by conventional weapons. "Non-lethal" weapons could cause increased mortality because of increased vulnerability. This is not such an unrealistic projection. It is a possibility that as a result of non-lethal weapons being used on the battlefield, the battlefield could become more lethal. Article 36 refers weapons means and methods and so one presumes that combinations of weapons would also have to be assessed in the legal review. As mentioned above, a question for a lawyer undertaking a legal review even of a "non-lethal" weapon is this: Even if the weapon in question is not prohibited and is labeled "non-lethal" have I really thought through all the implications of its deployment?

But isn't vulnerability and, importantly, soldiers recognising the opponents vulnerability at the very core of international humanitarian law? Is, in projected case described above, the incapacitated soldier wounded and hors de combat? There would be no obvious sign of injury; he or she would not be bleeding from a gaping wound. Does the incapacitated soldier intend to surrender? He or she will be unable to show signs of such an intention to anyone approaching. Therefore, the deployment of "non-lethal" weapons on the battlefield is a question which requires serious consideration in terms of international humanitarian law; not so much because there needs to be law regulating their use but more because there may be confusion about which law offers protection to this new category of vulnerable person. Another major concern in relation to "non-lethal" weapons is that their proponents propose they be used by soldiers against civilians when necessary. Does this not risk undermining a fundamental customary international law: that civilians shall be spared attack?

There are, inevitably, many other linked issues that should be considered prior to deployment of "non-lethal" weapons. Examples are: their proliferation; an "arms race of countermeasures;" the possibility of a lower threshold of use; and the perceptions of those attacked and their most likely response.

In his “Art of War,” written 2000 years ago, Sun Tsu said “Those who are not thoroughly aware of the disadvantages in the use of arms cannot be thoroughly aware of the advantages in the use of arms.” This paper argues that when lawyers are considering weapons and methods of warfare, that realistic and multidisciplinary consideration is given to the effects or purported effects on the victims. Furthermore, the ICRC would argue that the effects should be the starting point of legal deliberations because it is, ultimately, the prevention and limitation of certain effects of weapons and methods of warfare that are at the core of the 1949 Geneva Conventions and their 1977 Additional Protocols.

* * *

**Moderator:** Thank you Robin. Our next speaker, who is going to talk to us about the General Purpose Criterion, is Daniel Feakes, who is a Research Fellow with the Harvard Sussex Program on Chemical and Biological Warfare Armament and Arms Limitation. He is currently working with another of our panellists, Malcolm Dando, on a book called, *Disabling Chemicals and the Chemical Weapons Convention* and if I can plug in something personal, he’s also agreed to help me in my attempt to write the history of the OPCW Preparatory Commission. Daniel.

**Daniel Feakes**, Harvard Sussex Program

**General Purpose Criterion**

Thank you Mr Chairman. Good afternoon Ladies and Gentlemen.

We have heard the general purpose criterion mentioned quite a few times this afternoon in various presentations. In this presentation, I will address the general purpose criterion specifically and talk you through what it is, where it comes from and offer a few words on the implications and issues involved in its implementation.

I should also say that this presentation is based on a paper by the Director of the Harvard Sussex Program, Julian Perry Robinson, who unfortunately could not be here today to give it himself.

So first of all, what is the general purpose criterion? The initial approach that the negotiators to the CWC took in the 1970s focused on chemical warfare agents. This term was used in the United Nations Secretary General’s Report, in the WHO report and also in the so-called Swedish Resolution to the UN General Assembly in 1969. However, this approach fails to deal adequately with the issue of dual-use chemicals. Many so-called chemical warfare agents are used legitimately in industry. For example, phosgene was a big killer during the First World War, but it is also used legitimately by chemical industry. So how do you accommodate the

---

**Mr Feakes** is a research fellow with the Harvard Sussex Program on Chemical and Biological Warfare Armament and Arms Limitation. He is currently editing a book with Malcolm Dando on *Disabling Chemicals and the Chemical Weapons Convention*, as well as writing a chapter in the book on the activities of the OPCW with regard to disabling chemicals. Mr Feakes has attended all of the sessions of the Conference of the States Parties on behalf of the Harvard Sussex Program, in addition to working in the OPCW Secretariat for three years as the Harvard Sussex Researcher.
benign uses of chemicals while preventing their misuse for hostile purposes?

At the time that people started thinking seriously about a chemical weapons convention the negotiations on the 1972 Biological Weapons Convention (BWC) were being finalised.

It was the BWC which first used what was became known as a general purpose criterion. What this means is that the BWC prohibits the development, production, stockpiling, acquisition or retention of “microbial or other biological agents, or toxins whatever their origin or method of production of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes.” That is what we mean when we talk about the general purpose criterion.

So there was already a precedent set for the CWC negotiations.

The participants in the CWC negotiations therefore believed that they could use a similar device for the CWC and the general purpose criterion entered the draft CWC as early as 1983, in the first draft of the Convention.

As concluded in 1992, the text of the CWC defines chemical weapons as including “toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes”. So the focus, as we have heard already today from Ambassador von Wagner, is on the purpose to which the agents are put rather than on the properties of the actual chemicals.

So what we can conclude from this is that virtually all chemicals fall within the scope of the CWC, but activities involving them become illegal only when in contravention of the general purpose criterion.

The general purpose criterion thus allows the dual-use problem to be addressed because it permits legitimate uses while prohibiting chemical warfare-related activities. In addition, the general purpose criterion also allows the CWC to anticipate technological change. The general purpose criterion applies to chemicals not yet characterised or chemicals which are not yet even known. Without the general purpose criterion the CWC would have become locked into the technology prevailing at the time that it was negotiated.

But as we have seen since in the six years since the CWC entered into force, there has been a lack of awareness of the general purpose criterion. The criterion can only control dual-use chemicals and novel technology if the relevant provisions of the CWC are properly implemented and as we have heard already today, the present state of implementation is not adequate.

There are some States Parties that appear not to recognise the existence of the general purpose criterion. Some people have never heard of the general purpose criterion or they do not understand when it is explained.

Now I shall run through three recent developments that have significantly weakened the CWC that could, however, have been alleviated through better implementation of the general purpose criterion.

The first of these is that opponents of the CWC have often alleged that the CWC does not cover all chemical weapons. We have already heard people talk today about the Novichocks, about peptides and about more toxins than are actually listed in the Schedules. Critics of the CWC say these chemicals are not in the Schedules so they are not covered. But that is a false argument because the general purpose criterion closes those loopholes because all chemicals are covered by the Chemical Weapons Convention. So, this is only a loophole if you ignore the general purpose criterion.

Getting onto the subject that we are discussing today — others claim that the CWC does not cover ‘non-lethal weapons’. The current interest in such weapons comes from countries which want to ensure fewer casualties in combat. There is therefore a growing interest in what some people call ‘non-lethal weapons’ technology, but as we have just seen disabling chemicals such as CS or the Fentanyl apparently used in Moscow are no less subsumed by the general purpose criterion than the more lethal types of toxic chemical. By ignoring the general purpose criterion we might loosen the constraints on ‘non-lethal’ chemical warfare and we have just heard about the dangers that might imply.

It has also been claimed that the CWC does not address what have been called the “new wars” such as, intra-state conflict and civil wars, or that it does not address terrorism. Nowadays, attacks on unprotected civilians, whether by terrorists or in civil wars, are becoming a routine part of warfare and the terror value of chemical weapons and chemicals is being utilized rather than their strict military utility. So now accessibility to toxic chemicals is a major concern and toxic industrial chemicals are found in manufacturing industry in large quantities. But again, if properly implemented the general purpose criterion ensures that all such chemicals can be denied to terrorists or denied to people involved in using them in indiscriminate attacks on unprotected civilians.

The principle operational expression of the general purpose criterion is in Article VI, paragraph two, of the CWC: “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.” But where does the responsibility lie for overseeing this obligation to adopt the “necessary measures”? It does not lie with the Conference of the States Parties, the Executive Council or the Technical Secretariat, but it actually rests with the States Parties themselves and, in particular, their National Authorities.
However, two problems confront National Authorities in implementing the general purpose criterion. How do they ensure proper implementation nationally and also how do they ensure that the OPCW is aware that proper implementation is taking place within their countries?

There cannot be a universal pattern for national implementation because each country has to adapt the general purpose criterion to its own national laws, but safeguards against national neglect need to be nurtured. We have already heard this afternoon about the worrying state of national implementing legislation under the CWC.

The current Review Conference is an opportunity for States Parties to consider the long term future of the CWC. There are three ways in which this Review Conference can diminish the consequences of failing to implement the general purpose criterion properly.

The first would be a formal reaffirmation by the Review Conference of the central importance of the general purpose criterion for the CWC. The second would be the formal reaffirmation of the Article II, paragraph 2, definition of a toxic chemical and the third would be a call to all States Parties to fulfil all of their national implementation obligations.

Thank you

Moderator: Thank you Daniel. Our next speaker on the subject of law enforcement and riot control agents is David Fidler.

Mr Fidler’s presentation follows:

On Law Enforcement under the Chemical Weapons Convention

David P. Fidler, JD
FAS Working Group on Biological and Chemical Weapons for the Open Forum on Challenges to the Chemical Weapons Ban

MEMORANDUM
To: FAS Working Group on Biological and Chemical Weapons
From: David P. Fidler
(Indiana University School of Law—Bloomington)
Re: Interpretation of Article II.9(d) of the Chemical Weapons Convention in Regard to the Use of Toxic Chemicals for Law Enforcement Purposes
Date: April 24, 2003

EXECUTIVE SUMMARY
This memorandum analyzes two questions concerning the interpretation of Article II.9(d) of the Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and on Their Destruction of 1993 (CWC):

1. Can toxic chemicals that do not satisfy the definition of “riot control agents” (RCAs) be used for “law enforcement” purposes under Article II.9(d) of the CWC?

Conclusion: The use of toxic chemicals for law enforcement purposes under the CWC is not limited to RCAs (see Part 2 below).

2. What is the scope of the term “law enforcement” in Article II.9(d) of the CWC?

Conclusion: “Law enforcement” in Article II.9(d)

Professor Fidler is one of the world’s leading experts on international law and public health, especially with regard to infectious diseases. Professor Fidler is also an internationally recognized expert on the regulation of foreign investment, biological weapons, and the international legal implications of “non-lethal” weapons. In addition to his teaching and research activities as Professor of Law at the Indiana University School of Law, Professor Fidler has served as a legal consultant to the World Bank Group, the World Health Organization, the U.S. Centers for Disease Control, the U.S. Department of Defense’s Defense Science Board, the Federation of American Scientists, as well as public health policy bodies in South Africa and Japan.
means the enforcement of domestic law within the territory of a state and in areas subject to its jurisdiction (Section 3.2 below);

- does not include the extrajudicial enforcement of domestic law (Sections 3.3 and 3.4 below);

- does not include the enforcement of international law (Section 3.5 below); and

- recognizes the legitimacy of the use of RCAs by military forces undertaking extraterritorial law enforcement activities that are sanctioned by international law (Section 3.6 below).

**Article II.9(d) of the Chemical Weapons Convention**

9. “Purposes Not Prohibited Under this Convention” means:

- Law enforcement including domestic riot control purposes.

### 1. INTRODUCTION: QUESTIONS CONCERNING THE INTERPRETATION OF ARTICLE II.9(d) OF THE CHEMICAL WEAPONS CONVENTION

The use of a powerful chemical agent by Russia in the hostage rescue operation in October 2002 re-opened questions about the meaning of provisions in the Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and on Their Destruction of 1993 (CWC). Some of these questions have to do with Article II.9(d) of the CWC. This provision allows toxic chemicals to be used for “law enforcement including domestic riot control” as one of the purposes for which the CWC does not prohibit the development and use of toxic chemicals. Experts have debated whether Russia’s use of a chemical incapacitating agent, identified as an opioid of the fentanyl group, fell within the purpose not prohibited in Article II.9(d) of the CWC. This debate has also echoed more general concerns about the interest in “non-lethal” chemical weapons, including both riot control agents (RCAs) and incapacitating agents, by countries such as the United States and Great Britain.

The questions concerning law enforcement have focused on two main issues: First, can toxic chemicals that do not meet the definition of RCAs be used for law enforcement purposes? Second, does the term “law enforcement” extend to cover enforcement of not only domestic but also international law?

This memorandum analyzes these questions from an international legal perspective. The FAS Working Group on Biological and Chemical Weapons hopes that this analysis proves useful in stimulating discussion among interested parties.

### 2. TOXIC CHEMICALS COVERED BY ARTICLE II.9(d)

The first interpretive question raised by Article II.9(d) is what range of toxic chemicals can be used for law enforcement purposes. Some experts have argued that any toxic chemical used for law enforcement purposes has to have the same properties as a RCA—a chemical “not listed in a Schedule, which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short period of time following termination of exposure” (CWC, Article II.7). For example, Chayes and Meselson argued that “[a] toxic chemical used by virtue of its toxic properties is only of a type consistent with the purpose of law enforcement . . . if it meets the Convention’s definition of a ‘riot control agent’ in Article II(7)” (Chayes and Meselson 1997: 13).

This interpretation of Article II.9(d) is wrong for four reasons. First, consensus exists that Article II.9(d) allows countries to use toxic chemicals for capital punishment; and the chemicals used for this law enforcement purpose clearly cannot conform to the definition of RCAs. Even those advocating for restricting the range of toxic chemicals for law enforcement to those that meet the RCA definition admit that lethal doses of toxic chemicals can be used in capital punishment (Chayes and Meselson 1997: 13).

Second, principles of international law on treaty interpretation do not support restricting toxic chemicals used for law enforcement purposes to only those toxic chemicals that meet the RCA definition. Under international legal rules concerning treaty interpretation, a treaty must be interpreted “in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose” (Vienna Convention 1969: Article 31.1).

Article II.1(a) of the CWC states:

1. “Chemical Weapons” means the following, together or separately: (a) Toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes.

Thus, Article II.1(a) means that “toxic chemicals” are chemical weapons except where intended for purposes not prohibited by the CWC. The law enforcement purpose in Article II.9(d) is one purpose not prohibited by the CWC. The law enforcement provision applies, therefore, to “toxic chemicals” as defined broadly in Article II.2 of the CWC,12 not just to “riot control agents” as defined in

---

12 Article II.2 of the CWC provides:

2. “Toxic Chemical” means:

Any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals. This includes all such chemicals, regardless of their origin or of their method of production,
Article II.7. Article II.1(a) does not mention “riot control agents” as a limitation on the “toxic chemicals” that can be used for purposes not prohibited under the CWC.

Third, RCAs are defined as chemicals that are not listed on any Schedule to the CWC (Article II.7). Toxic chemicals that can be used for purposes not prohibited, including law enforcement purposes, can be listed on Schedules 2 and 3 of the CWC’s Schedules of Chemicals. The Verification Annex of the CWC makes this clear.

Under the Verification Annex, a CWC state party may not produce, acquire, retain, or use Schedule 1 chemicals unless, among other things, “[t]he chemicals are applied to research, medical, pharmaceutical or protective purposes” (Verification Annex, Part VI, A.2(a)). Law enforcement is not listed as a purpose for which Schedule 1 chemicals may be produced, acquired, retained, or used. As Krutzsch and Trapp observed, the Verification Annex relating to Schedule 1 chemicals is more restrictive in terms of the purposes not prohibited than Article II.9 and means that “a Schedule 1 chemical cannot be used for any other purposes than those listed even if such a purpose were a peaceful one not related to the development, production or use of a chemical weapon” (Krutzsch and Trapp 1994: 418).

The provisions of the Verification Annex on Schedule 1 chemicals effectively mean that CWC states parties cannot produce, acquire, retain, or use Schedule 1 chemicals for law enforcement purposes. By contrast, the Verification Annex on Schedule 2 and 3 chemicals does not restrict the purposes not prohibited in the same manner the Verification Annex does for Schedule 1 chemicals, meaning that toxic chemicals listed on Schedules 2 or 3 may be employed for law enforcement purposes.

Fourth, in the Moscow hostage incident, the use for law enforcement purposes of a toxic chemical that cannot be considered a RCA provides some evidence of state practice that Article II.7 does not limit the range of chemicals that can be used under Article II.9(d). Under international law on interpreting treaties, subsequent state practice under a treaty can be taken into account when determining the meaning of its provisions (Vienna Convention 1969: Article 31.3(b)). The state practice generated by the Moscow hostage incident comprises not only Russia’s use of the toxic chemical but also the apparent acquiescence of other CWC states parties to such use. The state practice generated by this incident suggests that there may be consensus that the use of a toxic chemical that was not a RCA in this particular instance was for domestic law enforcement purposes and did not violate the CWC.

Thus, application of international law on treaty interpretation indicates that the definition of a RCA in Article II.7 does not limit the range of toxic chemicals that can be used for law enforcement purposes. Article II.9(d) creates, in essence, a spectrum that ranges at least from RCAs to intentional lethal doses for purposes of capital punishment but excluding Schedule 1 chemicals (Figure 1). 15

Figure 1

Use of RCAs with low lethality

Range of chemicals permissible for law enforcement (excluding Schedule 1 chemicals)

Intentional lethal doses

Even though the CWC does not restrict law enforcement use of toxic chemicals only to RCAs, a CWC state party’s development, stockpiling, and use of toxic chemicals for law enforcement purposes are subject to three disciplines found in Article II.1(a). Krutzsch and Trapp captured these disciplines when they observed that “a State Party has not only to demonstrate that there was a legitimate intent for the production or stockpiling of a certain chemical, but also that the chemical is in fact of a type consistent with that purported intent, and that its quantity corresponds to the specified purpose” (Krutzsch and Trapp 1994: 27). These rules seek to ensure that possession of toxic chemicals for law enforcement purposes does not undermine the CWC’s general prohibition on the development and use of toxic chemicals for military purposes.

The above analysis indicates that CWC states parties need not address the question whether toxic chemicals used for law enforcement purposes must have qualities equivalent to RCAs because the CWC is clear that a range of toxic chemicals may be used. CWC states parties could, however, consider adopting a declaration procedure for toxic chemicals that are not RCAs but are intended for law enforcement uses. Such a declaration procedure would reinforce the purposes Article II.1(a) and Article III (on Declarations) serve and provide a stronger basis for the law enforcement purpose in state practice. Enhanced transparency in connection with toxic chemicals intended for law enforcement would mitigate concerns, apparent in the aftermath of the Moscow

13 Article II.7 of the CWC provides:

7. “Riot Control Agent” means:

Any chemical not listed in a Schedule, which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following the termination of exposure.

14 This analysis does not suggest that state practice from one incident is sufficient to settle interpretive questions raised by the CWC, but the state practice generated by the Moscow hostage situation is an important instance of state practice under Article II.9(d) of the CWC.

15 Figure 1 does not imply that the only relevant consideration in determining whether a toxic chemical is lethal is the chemical agent itself because the dose of the chemical used and the context in which it is used are also important factors in determining the agent’s potential lethality.

OPEN FORUM ON THE CWC

1 MAY 2003
hostage incident, that military forces might utilize the law enforcement purpose to engage in prohibited chemical weapon development and production.

Arguments against such a declaration procedure, such as reluctance to disclose to potential criminals and terrorists what toxic chemicals law enforcement authorities have at their disposal, should be discussed and weighed against the benefits of transparency. The range of toxic chemicals permitted for law enforcement, combined with growing interest by law enforcement and military officials in incapacitating chemical agents, indicates that a declaration procedure would help ensure that both this particular purpose not prohibited and the general prohibitions on chemical weapons remain robust.

3. MEANING OF “LAW ENFORCEMENT” IN ARTICLE II.9(d)

3.1 Interpreting “Law Enforcement”

The second major question to arise in connection with the interpretation of Article II.9(d) of the CWC is the scope of the term “law enforcement.” The CWC does not define what “law enforcement” means, which requires again turning to fundamental principles of treaty interpretation. In legal opinions on proposed chemical-based “non-lethal” weapons and on oceoresin capsicum (OC) spray, the Judge Advocate General of the U.S. Department of the Navy (U.S. Navy JAG) argued that the meaning of “law enforcement” in Article II.9(d) was unclear and stated that “[t]he nature of activities permitted under article II.9(d) is one that will be determined by the practice of states” (U.S. Navy JAG 1997: 12; U.S. Navy JAG 1998: 13). Although state practice informs how states interpret treaties under international law, treaty interpretation involves other principles that are important to apply to Article II.9(d) before casting the issue as one still to be determined by future state practice.

The basic interpretive question is whether “law enforcement” in Article II.9(d) should be interpreted narrowly or broadly. Krutzsch and Trapp captured this position as follows: “The phrase ‘law enforcement including domestic riot control’ can be interpreted as meaning that there is riot control other than domestic riot control. On the other hand, that ‘non-domestic’ riot control would have to be an internationally accepted means of ‘law enforcement’” (Krutzsch and Trapp 1994: 42 n.45).

Article II.9(d) allows toxic chemicals to be used for “[l]aw enforcement including domestic riot control purposes.” Again, the first principle of treaty interpretation is that a treaty must be interpreted “in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose” (Vienna Convention 1969: Article 31.1). This rule then means that the first step is to examine the “ordinary meaning” of law enforcement.

Curiously, the U.S. Navy JAG legal opinions on chemical-based “non-lethal” weapons and on OC spray did not apply or refer to this fundamental rule of treaty interpretation in connection with Article II.9(d). U.S. Navy JAG appears to have assumed that the application of this rule would not provide a clear answer, which tacit assumption explains why it argued the practice of states would determine the scope of “law enforcement.” Although U.S. Navy JAG correctly observed that subsequent state practice is meaningful in interpreting treaties, principles of treaty interpretation first mandate examination of the ordinary meaning of the terms of the treaty in their context and in light of the treaty’s object and purpose.

3.2 Enforcement of Domestic Law

The ordinary meaning of “law enforcement” is the enforcement of law. The ordinary meaning of “enforcement” is to compel observance or obedience (Shorter Oxford English Dictionary 1993: 820). The ordinary meaning of “law” clearly refers to domestic law, or the law that applies to activities within the territory, or subject to the jurisdiction, of a sovereign state.

Article II.9(d) contemplates the enforcement of domestic law. Consensus exists that Article II.9(d) allows lethal doses of toxic chemicals to be used for capital punishment—a law enforcement function that takes place within a state’s jurisdiction. In addition, Article II.9(d) allows toxic chemicals to be used for “[l]aw enforcement including domestic riot control purposes.” The phrase “including domestic riot control” illustrates one kind of law enforcement activity permitted by Article II.9(d) and focuses attention on domestic law enforcement within a state’s borders or jurisdiction.

Coastal states also possess rights to enforce domestic laws within certain maritime zones over which they exercise sovereignty or jurisdiction. Under the international law of the sea, coastal states have various rights to enforce domestic law in their territorial seas, contiguous zones, and exclusive economic zones (Churchill and Lowe 1999). Presumably, law enforcement as a permitted purpose in the CWC includes the enforcement of these laws because they represent extension of coastal state domestic sovereignty and jurisdiction. The coastal state has sovereignty, for example, over its territorial sea (UN Law of the Sea Convention 1982: Article 2.1); and it may exercise enforcement jurisdiction over activities in its territorial sea subject to certain limitations (Churchill and Lowe 1999: 98; UN Law of the Sea Convention 1982: Articles 27-28).

In the contiguous zone—a zone contiguous to the territorial sea and not extending beyond 24 nautical miles from the coast—coastal states may prevent and punish infringements of their customs, fiscal, immigration, or sanitary laws and regulations within their territory or territorial sea (UN Law of the Sea Convention 1982: Article 33). In the exclusive economic zone, which can extend up to 200 nautical miles from the coast, the coastal state has sovereign rights over all living and non-living resources in the zone (UN Law of the Sea Convention 1982: Article 56) and can enforce its laws and regulations regarding such rights against foreign vessels (UN Law of the Sea Convention 1982: Article 73).

Although Article II.9(d) covers the enforcement of domestic law within a state’s sovereign territory and in maritime areas subject to its jurisdiction, two questions linger: Does Article II.9(d) support (1) use of toxic chemicals to enforce domestic law extrajurisdictionally?; and (2) use of toxic chemicals to enforce international law? The memorandum analyzes each of these questions in turn.

OPEN FORUM ON THE CWC

30

1 MAY 2003
3.3 Use of Toxic Chemicals in Extrajurisdictional Enforcement of Domestic Law

Another central principle of treaty interpretation is that states shall take into account any relevant rules of international law applicable when interpreting a treaty (Vienna Convention 1969: Article 31.3(c)). Pursuant to this rule, analyzing whether Article II.9(d) allows the use of toxic chemicals in the extrajurisdictional enforcement of domestic law has to take account of the rules of international law on extrajurisdictional enforcement of domestic law. Taking these rules into account means that Article II.9(d) cannot be interpreted to authorize the use of toxic chemicals in order to enforce domestic law extrajurisdictionally.

Under international law, a state may enforce its law only if it has jurisdiction to prescribe the law it seeks to enforce (Restatement 1986: §431(1)). Under international law, a state has jurisdiction to prescribe law with respect to (1) conduct, persons, or activities wholly or in substantial part within its territory or areas subject to its jurisdiction; (2) the activities, interests, status, or relations of its nationals outside as well as within its territory and areas subject to its jurisdiction; and (3) conduct outside its territory or areas subject to its jurisdiction (a) that has or is intended to have substantial effect within its territory, and (b) by persons not its nationals that is directed against the security of the state or against a limited class of other state interests (Restatement 1986: §402). Even with such a basis for prescribing law, the exercise of the jurisdiction must also be reasonable (Restatement 1986: §403).

The CWC itself reflects the international law on prescriptive jurisdiction because it requires states parties to prohibit in their territories and areas subject to their jurisdiction control all activities banned by the CWC (Article VII.1(a)-(b)). The CWC also requires states parties to apply their penal legislation to their nationals wherever located in order to prohibit activities outlawed by the CWC (Article VII.1(c)).

These general rules demonstrate that a state may exercise its jurisdiction to prescribe domestic law beyond its jurisdictional boundaries. International law on jurisdiction to enforce law contains, however, stricter limits: “[i]t is universally recognized, as a corollary of state sovereignty, that officials of one state may not exercise their functions in the territory of another state without the latter’s consent” (Restatement 1986: 329). Supporting this position are two fundamental general principles of international law: (1) the principle of sovereignty and sovereign equality of states (UN Charter, Article 2.1); and (2) the principle prohibiting intervention into the domestic affairs of other states (UN Charter, Article 2.7). Actions to enforce criminal law, such as investigation and arrest, cannot be undertaken in the territory or jurisdiction of another state without that state’s consent. The CWC reflects international law on enforcement jurisdiction when it mandates that a state party’s extension of its penal legislation to CWC-prohibited activities undertaken anywhere by its nationals be “in conformity with international law” (Article VII.1(c)).

These rules of international law, and their application to the CWC, mean that Article II.9(d) only permits a state party to use toxic chemicals for law enforcement purposes within areas subject to such state party’s jurisdiction. Employment of a toxic chemical to enforce domestic law within the state’s territory would be a legitimate law enforcement purpose under Article II.9(d). Under international law on jurisdiction to enforce, Article II.9(d) cannot be interpreted to allow a state party to use a toxic chemical to enforce its domestic law inside areas subject to the jurisdiction of another state. Such use would only be legitimate when (1) the CWC state party with jurisdiction permits toxic chemicals to be used; and (2) the permission relates to a law enforcement activity within the meaning of Article II.9(d).16

Use of a toxic chemical inside the territory or jurisdiction of a state without its consent in order to enforce the domestic law of another state would violate the CWC as well as general principles of international law. For example, if the United States wanted to use toxic chemicals to incapacitate suspected terrorists located in the territory of another state for purposes of arrest and prosecution pursuant to U.S. federal law, then it would have to obtain express consent from the government of the other state for such use of toxic chemicals in the law enforcement action because the CWC does not permit such use.

The international legal rules on jurisdiction to enforce law demonstrate that the ordinary meaning of “law enforcement” in Article II.9(d) incorporates the enforcement of domestic law within the state’s own territory or areas subject to its jurisdiction. The ordinary meaning of “law enforcement” does not include the extrajurisdictional enforcement of domestic law because such enforcement depends entirely on the consent of another state.

Whether military personnel or civilian officials undertake enforcement of domestic law within the state’s territory or areas subject to its jurisdiction is not relevant from the standpoint of international law. Military forces sometimes participate in domestic law enforcement activities. Nothing in international law prohibits a state from using military forces for domestic law enforcement.17 These observations suggest that military forces can use toxic chemicals for domestic law enforcement purposes consistently with Article II.9(d).

The large body of international law on terrorism supports the above interpretation of “law enforcement” in Article II.9(d). Anti-terrorism treaties strictly adhere to the territorial foundation seen above in the international law on jurisdiction to enforce. Such treaties require states parties to criminalize certain acts and take jurisdiction over such acts (UN Convention on the Suppression of Terrorist Bombings 1998: Articles 2, 4, and 6). These treaty provisions connect to the need, under international law, for states to have proper jurisdiction to prescribe law. Anti-terrorism treaties then set up a system of “prosecute or extradite”—persons alleged to have committed the acts listed as offenses must either be prosecuted by the state in whose territory such persons are physically present or extradited to another state that has legitimate jurisdiction over the offense and the alleged perpetrators (UN Convention on the Suppression of Terrorist Bombings 1998: Article 8).

No anti-terrorism treaty recognizes the right of a state to enforce its domestic law inside the territory or jurisdiction of another state without that state’s express consent. The anti-terrorism treaties further demonstrate that the ordinary meaning of “law enforcement” generally excludes enforcement activities that occur outside a state’s own jurisdictional boundaries. International law

17 By statute, the U.S. Congress has prohibited U.S. military forces from engaging in law enforcement activities except in specifically defined situations, but neither the U.S. Constitution nor international law require these legal limitations on military participation in domestic law enforcement.
on terrorism supports the conclusion reached above that the ordinary meaning of “law enforcement” excludes the extrajurisdictional enforcement of domestic law.

International human rights law also supports the interpretation of “law enforcement” outlined above. Human rights treaties protecting civil and political rights apply to law enforcement activities within a state party’s jurisdiction. As stated in the International Covenant on Civil and Political Rights of 1966, “[e]ach state party . . . undertakes to respect and to ensure to all individuals within its territory and subject to its jurisdiction the rights recognized in the present Covenant” (Article 2.1).

3.4 Use of Toxic Chemicals to Enforce Domestic Law in Areas Beyond Any National Jurisdiction

International law on the enforcement of domestic law in areas beyond national jurisdiction is also relevant to the interpretation of Article II.9(d)’s scope. The most relevant example for purposes of analysis is maritime areas beyond any coastal state’s jurisdiction.

On the high seas, which are beyond any state’s jurisdiction, international law generally provides that only “the State which has granted to a ship the right to sail under its flag [the flag state] . . . has the exclusive right to exercise legislative and enforcement jurisdiction over its ships on the high seas” (Churchill and Lowe 1999: 208; UN Law of the Sea Convention 1982: Article 92). The law of the sea also restricts when warships may stop and board vessels flying the flag of another state on the high seas (UN Law of the Sea Convention 1982: Article 110). Thus, the international law of the sea also limits the scope of law enforcement as a permitted purpose under the CWC, considered in the context of maritime areas beyond the jurisdiction of any state.

3.5 Use of Toxic Chemicals to Enforce International Law

Sections 3.2, 3.3, and 3.4 above analyzed the use of toxic chemicals to enforce domestic law. Whether Article II.9(d) allows the use of toxic chemicals to enforce international law is another question that has arisen. As Chayes and Meselson noted, the CWC “does not state explicitly what sources of law states may enforce in invoking Article II.9(d). It seems possible, therefore, that states might wish to invoke international law to justify their ‘law enforcement’ activities” (Chayes and Meselson 1997: 15). The negotiating record of the CWC indicates a lack of agreement on this point:

Some, by no means a majority, of the negotiating states wished to protect possible applications of disabling chemicals that would either go beyond, or might be criticized as going beyond, applications hitherto customary in the hands of domestic police forces. Other negotiating states, in contrast, wanted the line held at ‘domestic law enforcement and domestic riot control’, as CD/CW/WP.400 (the Chairman’s original ‘vision’ text of the Convention) put it, excluding many but not necessarily all of the applications found during, for example, the Vietnam-War employment of CS. (Perry Robinson and Meselson 1994: 2)

The negotiators clearly changed “domestic law enforcement and domestic riot control” in earlier drafts to “law enforcement including domestic riot control” in the final draft of the treaty, leaving open whether this change creates the possibility of legitimate use of toxic chemicals for non-domestic law enforcement. In this context, we return to the primary rule of treaty interpretation—finding the ordinary meaning of the terms of the treaty in their context and in the light of its object and purpose (Vienna Convention 1969: Article 31.1). Does the ordinary meaning of “law enforcement” in light of the object and purpose of the CWC include enforcement of international law?

3.5.1 Enforcement and International Law Generally

To consider international law to be within the scope of “law enforcement” in Article II.9(d) would require an unconventional approach to the relationship between international law and enforcement. Whether international law is enforceable has been a perennial debate in international legal circles, which makes including international law within the ordinary meaning of “law enforcement” dubious from the start.

“Enforcement” is a controversial topic in international legal analysis because the decentralized and anarchic nature of the international system of sovereign states complicates enforcement of international law. International law contains few centralized mechanisms under which states can compel other states to obey rules of international law. As stated in Oppenheim’s International Law, the system of international law suffer deficiencies in the means available for enforcement of its rules (Oppenheim’s 1992: 11). Thus, arguing that the ordinary meaning of “law enforcement” in Article II.9(d) encompasses international law as well as domestic law lacks credibility given the controversial and peculiar relationship between enforcement and international law generally.

Enforcement of international law is also subject to principles regulating how states should handle disputes about violations of international law. Peaceful settlement of disputes is a generally applicable principle of international law (UN Charter 1945: Articles 2.3, 2.4, and 33.1), according to which states must settle disputes amicably without resort to force, violence, and weaponry. As Brownlie put it, “[p]eaceful settlement is the only available means” (Brownlie 1998: 703). Thus, international law obligates states to seek compliance with relevant rules of international law by other states through peaceful diplomacy, mediation, arbitration, or adjudication.

States can take peaceful countermeasures, such as diplomatic or economic sanctions, to try to compel another state to comply with its international legal duties. Peaceful dispute settlement does not, however, contemplate use of toxic chemicals to compel obedience with international law. In fact, nothing in international law justifies one state using toxic chemicals to compel another state to comply with international law.
3.6.1 Law Enforcement Activities in Connection with Traditional Military Operations: Occupation and Control of Prisoners of War

Some may argue that a state party to the CWC can use toxic chemicals as part of exercising its inherent right of self-defense against an armed attack or other form of illegal aggression by state or non-state actors pursuant to the law enforcement provision of the CWC—the idea being that the use of the toxic chemicals would form part of the enforcement of international legal rules prohibiting the use of force. This argument lacks any support in international law or the CWC. Under international law, exercising the right of self-defense is not generally considered an effort to enforce rules of international law. Self-defense against aggression is an inherent right that states possess (UN Charter 1945: Article 51) not a “law enforcement” mechanism.

Further, the text, context, object, and purpose of the CWC all point to the goal of eliminating the use of chemicals for their toxic properties in armed conflict. Allowing toxic chemicals to be used as part of the exercise of self-defense against aggression would be to allow chemical weapons to be used in armed conflict—the very thing the CWC prohibits. The same reasoning applies to armed conflict conducted by the armed forces of a state outside its jurisdiction, whether such operations involve (1) UN Security Council-authorized collective security responses to aggression (e.g., Iraq’s invasion of Kuwait); (2) humanitarian intervention (e.g., NATO forces attacking Yugoslavian forces in Kosovo); (3) anticipatory self-defense (e.g., Israel’s pre-emptive military strikes against Arab armies in 1967); or (4) pre-emptive self-defense (U.S./U.K. military action against Iraq).

3.6 Extraterritorial Law Enforcement Activities Undertaken by Military Forces and Permitted by International Law

The analysis in Section 3.5 demonstrates that Article II.9(d) does not allow CWC states parties to use toxic chemicals to enforce international law. Thus, the change from “domestic law enforcement” to “law enforcement” in the CWC negotiations on Article II.9(d) does not mean the CWC permits states parties to enforce international law by using toxic chemicals. This interpretation still leaves unanswered the meaning of the change from “domestic law enforcement” to “law enforcement” in the text of Article II.9(d) that occurred in the negotiations.

This change implies that states parties believed that some law enforcement activities could be conducted extraterritorially. As Krutzsch and Trapp put it, the debate surrounding Article II.9(d) raises the question of “which methods of ‘law enforcement including domestic riot control’ are to be considered permissible under international law in general” (Krutzsch and Trapp 1994: 43). As Section 3.3 explained, Article II.9(d) cannot be interpreted to justify the extrajurisdictional enforcement of domestic law because of the international legal rules that apply in this area. Such extrajurisdictional enforcement can only legally occur if the country in which the law enforcement action takes place has consented to the law enforcement action and the use of toxic chemicals for such purpose.

International law permits, however, certain extraterritorial law enforcement activities by military forces in both traditional and non-traditional military operations. The rest of this section argues that these extraterritorial law enforcement activities undertaken by military forces and permitted by international law can be considered within the scope of Article II.9(d).

3.6.1 Law Enforcement Activities in Connection with Traditional Military Operations: Occupation and Control of Prisoners of War

International law recognizes a number of contexts in which military forces can legitimately engage in law enforcement activities in connection with traditional military operations. These contexts generally relate to the preservation of public order and safety in areas subject to the control of military forces. First, international humanitarian law acknowledges the responsibility of occupying military forces “to maintain the orderly government of the territory” (Geneva Convention IV 1949: Article 64). The International Committee of the Red Cross observed that this provision empowers the occupying power “in its capacity as the Power responsible for public law and order” (Geneva Convention IV 1949: Article 64). According to the International Committee of the Red Cross, “[t]his power has long been recognized by international law” (Commentary on Geneva Convention IV 1958: 337). Fulfilling this responsibility for public order and safety would include activities such as controlling civilian crowds in order to prevent disorder in the occupied territory.

Second, international humanitarian law also allows occupying military forces to ensure the security of the members and property of the occupying forces and the occupying administration and of the establishments and lines of communication used by them (Geneva Convention IV 1949: Article 64). According to the International Committee of the Red Cross, “[t]his power has long been recognized by international law” (Commentary on Geneva Convention IV 1958: 337). This right of occupying military forces gives them international legal permission to enact and implement penal legislation in order to protect their soldiers, administrators, buildings, lines of communication, equipment, and other forms of property from problems created or threats posed by non-combatants in the occupied territory.

Third, international humanitarian law generally recognizes that the occupying power may enforce the laws of the occupied territory or the laws the occupying power promulgates pursuant to its responsibilities under the international law of occupation (Geneva Convention IV 1949: Articles 64-78). Such general law enforcement powers would include law enforcement techniques and weapons used to control civilian crowds and to protect public order and safety.

Fourth, international humanitarian law allows military forces to regulate the behavior of prisoners of war under their control (Geneva Convention III 1949: Articles 41, 82). Military forces can enforce laws, regulations, and orders against prisoners of war (Geneva Convention III 1949: Article 82). Military forces may use weapons against prisoners of war in extreme circumstances, such as prisoners attempting to escape (Geneva Convention III 1949: Article 42). According to the International Committee of the Red Cross, the detaining power may use force against prisoners of war engaged in rebellious or mutinous behavior: “Before resorting to weapons of war, sentries can use other weapons which do not cause fatal injury and may even be considered as warnings—tear gas, truncheons, etc.” (Commentary on Geneva Convention III 1960: 247).

These four contexts in which international humanitarian law recognizes the legitimacy of extraterritorial law enforcement activities by military forces indicate that Article II.9(d) of the CWC may include these activities. In essence, international humanitarian law provides relevant rules that can be used in interpreting the scope of Article II.9(d) (Vienna Convention 1969: Article 31.1(c)).

This interpretation of Article II.9(d) covers some of the circumstances in which the United States claims the ability to use RCAs, namely: (1) in areas under direct and distinct U.S. military control, including the control of rioting prisoners of war; and (2)
in rear echelon areas outside the zone of immediate combat to secure convoys from civil disturbances (Executive Order 11850 1975: paras. (a), (d)).

3.6.2 Law Enforcement Activities and Non-Traditional Military Operations: Peacekeeping

The foregoing analysis also applies to non-traditional military operations, such as peacekeeping operations, recognized as legitimate under international law. Non-traditional military operations have legitimacy under international law if they are conducted pursuant to: (1) a request for peacekeeping forces from a sovereign state; and (2) the authorization of peacekeeping operations by the UN Security Council under Chapter VII of the UN Charter.

Military forces conducting such operations will often find themselves in control of and responsible for the security of, and public order and safety within, civilian populations, and will face possible threats to the security of their personnel and equipment from non-combatants. Indeed, the challenges military forces face handling civilian populations in peacekeeping operations have partly fueled the increase in military interest in “non-lethal” weapons in the last decade (Fidler 1999: 58).

Thus, Article II.9(d) of the CWC permits the use of RCAs for law enforcement purposes undertaken by military forces during non-traditional military operations sanctioned by international law. This interpretation of Article II.9(d) is consistent with part of the claims by the United States that it may lawfully use RCAs in (1) the conduct of peacetime military operations within an area of ongoing armed conflict when the United States is not a party to the conflict; (2) peacekeeping operations authorized by the receiving state, including peacekeeping operations pursuant to Chapter VI of the UN Charter; and (3) peacekeeping operations where force is authorized by the UN Security Council under Chapter VII of the UN Charter (U.S. Senate Resolution No. 75 1997: para. 26A).

This interpretation of Article II.9(d) does not support, however, the United States’ position that it may use RCAs against combatant forces in the above-listed non-traditional military operations. The types of law enforcement activities that international law allows military forces to undertake in traditional and non-traditional military operations address the interaction of military troops and non-combatants, in the form of either prisoners of war or civilians, not the engagement of combatant forces.

Interpreting Article II.9(d) of the CWC as presented above has two implications that deserve brief mention. First, this interpretation of Article II.9(d) means that military forces conducting extraterritorial law enforcement activities permitted by international law during traditional and non-traditional military operations might not be limited to the use of RCAs (see Section 2 above).

A discipline exists, however, that restricts military forces to RCAs in conducting extraterritorial law enforcement activities sanctioned by international law during traditional and non-traditional military operations. This discipline comes from the international legal sanction for such activities. International law’s recognition of the legitimacy for military forces to engage in, such law enforcement activities as civilian riot control requires calibration of the means and ends. Use of RCAs is proportional to the law enforcement objectives military forces seek to effect (e.g., crowd control, protection of convoys).

Use of stronger, potentially more incapacitating toxic chemicals for law enforcement activities sanctioned by international law would be presumptively disproportional and illegitimate. State practice supports this interpretation of Article II.9(d) because CWC states parties, including the United States, have never claimed the ability to use, or actually used, toxic chemicals other than RCAs for the types of law enforcement activities permitted by international law in traditional and non-traditional military operations.

The second major implication of the interpretation of Article II.9(d) found above is that it covers many, but not all, of the uses of RCAs the United States claims are legal under the CWC. The interpretation of Article II.9(d) rendered in this memorandum does not cover two situations the United States believes are legally permissible uses of RCAs: (1) situations in which civilians are used to mask or screen attacks and civilian casualties can be reduced or avoided; and (2) rescue missions in remotely isolated areas of downed aircrew and passengers, and escaping prisoners of war (Executive Order 11850 1975: paras. (b)-(c)). Neither of these circumstances resembles the kinds of law enforcement activities sanctioned by international law in which military forces may engage.

An argument can be made that use of a RCA against an escaping prisoner of war in an isolated area might be legitimate, but such an argument is weakened if the prisoner has escaped into an isolated area not under the control of the detaining power, perhaps again becoming a combatant. Similarly, use of RCAs against enemy combatants attempting to capture downed aircrew and passengers more resembles a method of warfare than a law enforcement purpose.

Likewise, using RCAs against enemy combatants who are employing civilians as shields against attack or masks for attacks does not fit within the kinds of law enforcement activities undertaken by military forces and sanctioned by international law. Interpreting Article II.9(d) in this manner is consistent with treaty interpretation principles because it distinguishes between law enforcement purposes covered by Article II.9(d) and methods of warfare prohibited by Article I.5.

---

18 The foregoing analysis may also apply to other non-traditional military operations, specifically noncombatant evacuation and rescue missions. A number of countries, including the United States, have conducted peacetime military operations to rescue or evacuate nationals and other noncombatants from dangerous situations in other countries, which often involve the breakdown of social order because of on-going civil war. When such operations are undertaken without the permission of the host government, experts have debated their legitimacy under international law (Ronzitti 1985; Beyerlin 1995). The implementation of noncombatant evacuation and rescue operations may confront public order and safety challenges that create situations under which use of RCAs may be warranted. As Day argued, “[t]he populace of the host country may seek evacuation for themselves or try and prevent the operation, thus necessitating some measures of crowd control” (Day 1992: 59).
4. Conclusion

The international legal analysis undertaken in this memorandum indicates that the CWC:

1. Does not limit the use of toxic chemicals for domestic law enforcement purposes to RCAs but excludes the use of Schedule 1 chemicals from any law enforcement purpose.
2. Excludes from “law enforcement” the use of toxic chemicals to enforce (a) domestic law extraterritorially; and (b) international law.
3. Recognizes the legitimacy of RCA use by military forces undertaking extraterritorial law enforcement activities that are permitted by international law.
4. Requires that toxic chemicals and delivery systems acquired or used for law enforcement purposes be of types and quantities consistent for those purposes.

Finally, law enforcement use of toxic chemicals pursuant to Article II.9(d) must comply with all other applicable rules of international law, including international law on human rights.

References


Riot Control Agents as a Special Category

The use of riot control agents (RCA) in past wars, particularly in Vietnam, was a driving force in the negotiation of the Chemical Weapons Convention (CWC). However, RCA remained contentious throughout the negotiations because of their ongoing use around the world in law enforcement and riot control. The tension between this necessary use, which was reiterated as permissible from the beginning, and the possibility of RCA use in warfare was not resolved until the end, when the Chairman issued a revised text including, for the first time, an explicit ban on the use of RCA as a method of warfare. In explaining the revision the Chairman noted that

“a common view has emerged among delegations that the preparation and application of any method of warfare dependent upon toxic properties of chemicals should be banned under the Convention.”

Thus, according to the Chairman, RCA are cited explicitly because they are toxic chemicals. They are also given special treatment under the CWC in a number of ways: they are

1. defined (Art. II.7),
2. prohibited for use as a method of warfare (Art. I.5),
3. required to be declared (Art. III.1(e)),
4. cited in Art. X.8(b) on investigation and assistance if used against a State Party, and
5. permitted for a purpose not prohibited by the Convention, namely, “law enforcement including domestic riot control purposes” (Art. II.9(d)).

Riot Control Agents as Toxic Chemicals

At the same time, RCA are covered in the CWC’s definition of toxic chemicals, which includes any chemical that can cause “temporary incapacitation” and includes “all such chemicals.” The use of RCA in warfare is thus doubly prohibited, and RCA fall into both a special class and the general class or toxic chemicals. The US Navy Judge Advocate General’s preliminary legal review on non-lethal weapons (1997) acknowledges the possibility that a given substance can be subject to both the restrictions placed by the CWC on RCAs and those placed on toxic chemicals. As a toxic chemical, RCA can only be used for the purposes not prohibited for toxic chemicals, listed in Article II.9, which include domestic riot control—further evidence that RCA are considered to be “toxic chemicals.” And, as toxic chemicals, RCA are subject to the requirement that their types and quantities must be consistent with their purpose. This implies that the munitions or devices used to deliver RCA must also be consistent with that purpose.

A problem has already arisen in this regard: The Bazalt Works in Russia is preparing to produce and sell various types of ammunition containing RCA. According to ITAR-TASS (5 Dec. 2002) the munitions include hand grenades, projectiles for portable grenade launchers, mortar shells and cluster bomb units. Although these munitions are said to be for RCA, not all of them are appropriate for riot control purposes. If they are produced and sold, their potential use with other toxic chemicals will seriously undermine the object and purpose of the Convention.

Dissemination of Riot Control Agents

The text of the Convention and its negotiating history, taken together, imply that the only toxic chemicals that can be introduced into munitions or devices for dissemination are RCA. If held in this form, RCA would be already prepared and on hand if they should be wanted for illegal use as a method of warfare. Although the basic intent of the CWC is to exclude completely the possibility of the

1. defined (Art. II.7),
2. prohibited for use as a method of warfare (Art. I.5),
3. required to be declared (Art. III.1(e)),
4. cited in Art. X.8(b) on investigation and assistance if used against a State Party, and
5. permitted for a purpose not prohibited by the Convention, namely, “law enforcement including domestic riot control purposes” (Art. II.9(d)).
use of chemicals as weapons, it was necessary to permit RCA to be held and used in munitions or devices for purposes of law enforcement including riot control. This permission makes RCA uniquely threatening, and the resulting discord with the goal of the Convention makes special safeguards necessary. The explicit declaration requirement for RCA provides transparency regarding possession of this special threat. The explicit prohibition against the use of RCA as a method of warfare emphasizes that this unique class of disseminatable toxic chemicals is subject to the same prohibitions as other toxic chemicals, for which there are no “purposes not prohibited” that involve dissemination by munitions or devices. The only use of toxic chemicals for law enforcement purposes that was discussed during the negotiations, other than riot control, was capital punishment, which does not require the use of munitions or devices for dissemination.

**Immobilizing/Incapacitating Chemicals**

Riot control agents are defined in the CWC as:

- Any chemical not listed in a Schedule, which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination or exposure.

Traditionally, these are chemicals that repel rather than immobilize. On the other hand, immobilizing or incapacitating agents, rather than causing crowds to disperse, would immobilize them and thereby permit their capture and possible mistreatment. Nonetheless, the CWC does not exclude the possession of immobilizing chemicals that fit the definition of RCA. Research currently being conducted to find a truly reversible immobilizing or incapacitating agent is not a violation of the Convention—although it is unwise and likely to be ultimately counterproductive, as the next speakers will demonstrate. The inclusion in Schedule 2 of a chemical incapacitant, BZ, that does not fit the RCA definition underlines the fact that such agents are clearly illegal. RCA cannot include any chemical listed in a schedule.

**Permissible Uses of RCA**

Questions have been raised about the permissible purposes for the use of RCA, but there seems to be general agreement that they all fall under one “purpose not prohibited:” law enforcement including domestic riot control. According to Professor Fidler, “law enforcement” purposes means:

1. enforcement of domestic law within a state’s own territory or areas subject to its jurisdiction;
2. extraterritorial law enforcement activities undertaken by military forces and permitted by international law, such as
   --maintaining public order and safety during occupations,
   --control over prisoners of war,
   --consensual peacekeeping, or
   --peacekeeping operations authorized by the Security Council under Chapter VII of the UN Charter.


The UK Ministry of Defence recently encapsulated a clear understanding of the CWC regarding the use of RCA, as follows:

RCA “are permitted for dealing with riot control,” but the CWC precludes the use of chemicals, including RCA, in [other] “military operations or on any battlefield” (G. Hoon, Press Conference 27 March 2003).
**Moderator:** Our final speaker in this section talking on incapacitants is Malcolm Dando. Malcolm is Professor of International Security in the Department of Peace Studies at the University of Bradford in the United Kingdom. He trained originally as a Biologist and his Doctorate is in Neuroscience.

**Malcolm Dando**, Department of Peace Studies at Bradford University

**Incapacitants**

The Organisers of this session wisely left the most indigestible science to the last session. I would ask that you try to bear with me because what I want to say to you is that an extremely significant change in the science and technology that you should be aware of took place during the 1990s and if you ignore that in this review I think you’ll find when you come to the next review you’ll have an enormous problem on your hands.

In order to stick within the time limits I’m going to confine my remarks to the paper we produced in our CWC Review Conference series. Bradford First CWC Review Conference Paper Number 4. I did put some copies out on the table earlier on, but they’ve all gone, but it is also available on the Net at the address which Graham gave earlier on in the afternoon (http://www.brad.ac.uk/acad/scwc).

The paper tries to deal briefly with the characteristics of modern drug development, explain how potential misuse could arise and sets the wider context of concerns about mid-spectrum agents called bioregulators. The paper then concentrates on one particular kind of bioregulator in neuroscience and hopefully ends up with a reasonable suggestion of what you might do.

In the Moscow siege, the Russian military used a Fentanyl derivative in order to break the siege. About a hundred and twenty people died. I don’t know for sure, but I suspect a fair number of people are suffering from various kinds of neurological problems as a result, but many people were saved and it could be that looking at this operation some military forces, some police forces, might consider or be tempted to use similar kinds of chemicals in similar kinds of operations —and not just in a domestic context.

What the gas did was to make people unconscious, but because it was not specific enough it also stopped people breathing. What the scientific and technological developments that I want to talk about may tempt people to believe is that you might be able to find mechanisms, for instance to make people unconscious without affecting their breathing and therefore there would be a great attraction in going down this road of producing new forms of incapacitants. For good reasons your Conference in mandated to take into account such scientific and technological developments.

Those of you who know the history will be well aware that there was considerable interest during the Cold War period in a whole range of different kinds of mechanisms of incapacitation.

What happened during the 1950s was a serendipitous discovery of chemicals which could help people with severe mental illnesses and this led to a great deal of interest in the pharmaceutical industry to find new ways of helping people with those kind of illnesses - quite rightly- but it also attracted military attention in trying to find new forms of incapacitation.

Basically many of the processes in our bodies take place through the operation of signalling chemicals and if you can interfere with those signalling chemicals you can very severely disrupt bodily functions. In the nervous system the individual nerve cells transmit information basically by electrical means, but between different nerve cells predominantly the transmission of information is by chemical means. Chemical neurotransmitters are produced by the first cell and affect very specific receptors on the second cell to pass the information along to that second cell.

During the Cold War period it was understood that there were such neurotransmitter chemicals and efforts were made to find means of modifying those chemicals for specific purposes. What was not understood was the complexity of the receptor systems and what happens during the 1990s was that the revolution in the life sciences produced the capability to understand those receptors. So during the Cold War period medicinal chemists were trying to find keys to unlock processes without understanding the lock. What the genomics revolution of the 1990s delivered was a vast cornucopia of information about the lock so medicinal chemists are no longer fishing in the dark for the keys. They know what is the structure of the lock and it’s much easier for them to find a structure of the key to unlock certain processes.

Derivatives of fentanyl are all opioids. They are related to morphine. Fentanyl is about eighty times more powerful than morphine.

We know now a great deal about the structure of the receptors for these kind of opioids, both synthetic and natural, but even more important, we understand an enormous amount about the receptor sub-types. So you’ve got information just not about the kinds of receptors, but all the different sub-types of receptors which these chemicals can affect and as we know from the IUPAC report on

---

19 Professor Dando co-directs the Department of Peace Studies’ Project on strengthening the biological and Toxin Weapons Convention (BTWC). He has published many articles, as well as books on the subject of biological and chemical warfare.
chemical production from our first session, there’s an enormous new capability to generate vast numbers of chemicals and to test them and see if they work against these kind of receptors.

So the question then arises, in regard to systems in which we suspect there could be interest in abuse, is it possible that specific chemicals have been found with specific action on specific receptor sub-types to affect particular kinds of behaviour. If we can find that in the benign work in the open literature, then we have to draw the conclusion that those with malign intent could also be capable of doing the same things.

I want to talk just about the nervous system, but I want to bring to your attention the fact that these kind of chemical signalling mechanisms also operate in the endocrine system in regard to hormones. In the immune system in regard to cytokines and obviously in the nervous system in regard to neurotransmitters, and it’s not only people who want to enforce law who might be interested in this kind of agent. People with malign ambitions for terrorism or State use would find these things attractive. For example they have:

- Non-specific effects;
- Very rapid actions; and
- There are no capabilities to produce vaccines against them;
- They are not on anybody’s threat lists; and,
- Are capable of very unusual modes of distribution.

So, just some quick examples. *Acetylcholine* system. An obvious candidate for abuse. This was the system which the nerve agents interrupted. This was the system which was interrupted by BZ—the chemical incapacitant produced during the Cold War. The receptor system during the Cold War were understood to be in two classes, *Nicotinic* and *Muscarinic*, but what nobody understood at that time was that there are nine different sub-types at least of the *Nicotinic* receptor and at least five different sub-types of the *Muscarinic* receptor and we know through neuroimaging a lot about the circuits in which these occur. And we can, using knock out and knock in mice, explore the operations of some particular mice which have had one of these sub-types removed.

The *Muscarinic* receptors are the most important in the central nervous system. The M2 receptor is an inhibitory auto receptor. When a cell produces *Acetylcholine* there’s a feedback mechanism which stops the production of *Acetylcholine*. We know that in Alzheimer’s disease there’s a problem; there’s a limitation of the production of *Acetylcholine*, so there’s an enormous amount of effort being devoted to blocking these inhibitory autoreceptors in order that you increase the amount of *Acetylcholine* produced in the brain and maybe help people with Alzheimer’s disease. A lot of success in doing that, but if you can block them then surely you can also find chemicals which enhance that effect and therefore instead of helping people with Alzheimer’s you’d be doing the kind of things that were done with BZ, you would be making people unable to think clearly.

*Acetylcholine* is what’s called a classic or small molecule neurotransmitter. There are lots of other neurotransmitters which come under the heading of peptides. Things like *Endothelin*, things like *Substance P*, and I could tell you a tale of similar kinds of things being done in regard to *Endothelin, Substance P* - very specific chemicals to attack very specific subtypes of receptors.

Are the military interested? Well there’s at least one report on *calmatives* out in the open literature by a group which is closely related to one particular State Party’s armed forces and they talk about a system I know well, the *Adrenergic* system of the brain. Again an inhibitory autoreceptor system, but if you can use something like that, you can actually enhance the effect and the net result is that you make people unconscious. And the *calmatives* report I’m referring to suggests that this kind of system is near to deployment.

So, what does the analysis I presented suggest. It’s already clear that there are specific selective agents which can be designed to attack specific receptor sub-types. The information is out there in spades in the open literature.

Even worse, there are many *polymorphisms*, differences in these receptor systems and these are related to group differences. So people worry about the possibility of attacks on specific groups. And we know that there are viruses which have specific *tropisms* for particular parts of the central nervous system. So you can well imagine somebody thinking about using particular kind of viruses to carry particular kinds of chemicals into particular parts of the central nervous system.

What should be done? I think this Conference, if it’s got any sense, will strongly reaffirm that the Convention unequivocally covers all chemicals and particularly points out that in consequence things like toxins, *prions*, proteins, peptides and bioregulators and their biologically or synthetically produced analogues and components are covered by the Convention, full stop. And I’ll lay a bet with you if you don’t do it when you come back next time you’ll have a real mess on your hands.
Moderator: We now have a reasonable space in which we can take some questions.

Some of the questions that have been passed up as a result of the first session were, I think, answered by speakers in the second. For example, I had a question as to whether the use of tear gas by Alliance forces in Iraq to deal with civil unrest would be legal or not under the CWC. My understanding is that and I think this is what David said, that provided the Armed Forces are using these in the same way that the civil power would if the civil power was re-established, then we’re O.K., but do you want to elaborate at all on that?

David Fidler: I think that’s the basic context in terms of those extraterritorial and military activities that I was talking about. These are akin to law enforcement activities that would be undertaken by a civil authority in the case of occupation; and there are other principles of international law, for example the Geneva Convention on prisoners of war, that recognise the use of weapons against prisoners of war in certain situations. There have been indications that use of riot control agents in controlling rioting prisoners of war would be O.K. and in public order, public safety contexts. My interpretation is that Article II.9(d) incorporates these kinds of activities by military forces.

Moderator: Thank you. The next subject arises from what we heard about the Legacy Programme, which is these old chemical weapons which are unearthed from your burial sites all over Washington DC and other parts of the States. Is their destruction verified by OPCW Inspection Teams? Well, my understanding of the situation is that if you dig something up you certainly have to react in accordance with the Convention, but it would depend on the condition of what you find… its usability and its age, precisely what would happen, but what do you understand happens with the things that you actually dig up?

Paul Walker: You know I’m not actually certain of the answer to that. I believe in most cases if the weapon can be moved and in most cases I think we’ve found it can be moved, the weapon is put in overpack and moved to a destruction site in the United States. You notice I mentioned that most of these are shipped to either Pine Bluff, Arkansas, which is an incinerator under construction and a major American stockpile, or they are shipped to Tooele, Utah which is the largest stockpile and operating incinerator. So I believe that when the destruction of those weapons takes place, there’ll be OPCW Inspectors on-site. I know there are Inspectors on-site right now at Tooele. I’m not quite sure whether yet at Pine Bluff, but I would believe yes, they would take place under OPCW auspices.

Moderator: Thank you. Well, I hope that answers the question. I know that the Convention is somewhat complex in its description of chemical weapons, depending on when they were built. You have a whole group of things which are considered to be too old to be of any value and then an intermediate group where I believe that the Organisation is supposed to have come to some ideas to what constitutes usability and I think you’ve been finding it very difficult, but technically if it’s usable then it’s a weapon and it has to go through the machine and if it’s not usable then it’s still dangerous toxic waste and you still have to be jolly careful about it. But if anybody is more expert than me and wants to contribute on this one? Well, nobody’s challenging what I’ve said anyway.

Question: If the United States and the U.K. and others operating in Iraq find the chemical weapons they have been looking for, what happens then? Do they have to declare them to the OPCW because both of those countries are parties to the Convention or does the fact that they were made by a country not part of the Convention, Iraq, affect the situation at all? Does anybody want to give some views on this interesting topic? Any volunteers?

Paul Walker: I’ll give a quick answer. I think to me the simple answer is one of the most positive steps that could be taken with the new Iraqi regime is that they join the CWC and, once they join the CWC, I assume everything found on their territory will come under CWC auspices and then they have to be declared a possessor State and they’ll have to be destroyed under OPCW auspices. But in the interim period, I don’t know. I don’t know. I don’t think the United States will declare possession I can tell you that. [laughter]. We are representing an environmental group. I mean we are
concerned since the … weapons dump accident in 1991 in the Gulf War. We are very concerned how, if weapons or precursor chemicals are found in Iraq, how they’re in fact destroyed. As you know in 1991 we simply blew them up accidentally and probably injured quite a few soldiers down range of the dump, not knowing chemical weapons were there at the time. So I do believe that we need close inspection as to how these weapons are handled and in fact destroyed in an environmentally sound and public health protective way, when and if they are found.

**Moderator:** My understanding of what UNSCOM did with the weapons that it found was that a great deal of care was taken to make sure that the method used in their destruction was environmentally reasonable. It may not have met the precise stricatures of some of the environmental laws within the United States. The team involved in that subsequently came and worked with us in the Secretariat so we got the opportunity to talk to them and have presentations from them about what they did. My recollection is that part of the equipment which had been used for production of chemical weapons was actually turned around and used in the destruction process. But certainly we wouldn’t expect any material found now to be treated in any less a stringent way than UNSCOM treated it and possibly even new ideas as to the proper way to handle these things would come into effect.

**Question:** I have another question and this again may have been answered in the course of our second panel. It was addressed initially to Ambassador von Wagner. It says, since you contend that law enforcement purposes, including riot control, are separate and distinct categories, that only riot control constitutes an exception to the general prohibition and law enforcement does not, why did the CWC text not say, riot control for law enforcement purposes? But I think we had quite a detailed exposition of this whole question by David Fidler as to whether you can really separate the concepts of riot control and law enforcement. Or whether they really work together. Do you want to perhaps. It was addressed to you.

**Ambassador von Wagner:** I’m sorry. I probably didn’t express myself clearly enough. What I wanted to get across is that law enforcement and domestic riot control are two terms of one and the same statement and the word “including”, which stands between them, indicates in this direction which, and there might be a contradiction to Professor Fidler; would mean that the definition of riot control agents as contained in sub-paragraph D, what is it nine D of Article II, is valid also for law enforcement. If it were not so and therefore I tend to contradict. If it were not so, then scheduled chemicals could be used for law enforcement. They could be developed. They could be stockpiled, they could also be used for law enforcement, of course, but you would not have any restriction on that and, therefore, I do not think that this would go along with the general philosophy of the Convention. You would open to the door towards a third generation of chemical weapons. Thank you.

**Moderator:** David, do you want to comment at all?

**Fidler:** Yes, I just think we have a different interpretation of that particular provision. I think this is an important debate to have because I don’t think that you can read law enforcement and riot control purposes as synonymous under the CWC. I’m sympathetic to that. I just don’t think you can make the text work that way, and it doesn’t just blow a gigantic hole in the CWC because, again, I think we have to remember the general purpose criterion—the intent, type and quantity disciplines. All those disciplines apply to toxic chemicals used for law enforcement purposes, and that is something that needs to be emphasised. So I don’t think it gives up the entire CWC to read Article II.9(d) as covering more toxic chemicals than RCAs or reading law enforcement more broadly than just riot control. Importantly, that’s what the text of the Treaty says; and the first principle of treaty interpretation is the ordinary meaning of the words.

**Moderator:** Malcolm.

**Dando:** My concern on David’s interpretation is what restriction then is there on law enforcement. If you say law enforcement is a bigger category than domestic riot control, it includes a bigger set. What’s in that set? What’s allowable and are you saying everything is possible or are you saying certain very minor things are possible?

**Fidler:** The CWC doesn’t define law enforcement. The two issues that were discussed during the CWC negotiations were domestic riot control and capital punishment. That’s a broad spectrum of activities that are encapsulated or captured by the law enforcement exception. There hasn’t been a lot of debate or discussion about what law enforcement means until we had the Moscow hostage situation. That’s a situation which is not capital punishment or domestic riot control. If you see the reaction on the part of State Parties to the CWC, at least in terms of their public statements, there appears to be a realisation that this was legitimate in terms of a domestic law enforcement action using a toxic chemical that’s not an RCA. The question then becomes: are the types and quantities consistent with using that type of toxic chemical for law enforcement purposes? So those are the disciplines that apply.

**Moderator:** I suspect that this is a legal argument which is going to run and run, but are there any questions that people in the audience have that they didn’t actually get around to writing down on a piece of paper. We have a couple of minutes if anybody wants to fire anything else at this eminent panel we have up here? Please madam?

[Unable to hear this question]
Coupland: Thank you. I think this is a very important question and the question of educating people who wish to pursue a scientific career is often seen as the cherry on the top of the many measures that might reduce the risks of poisoning and deliberate spread of disease. I personally think that if we look 30 years ahead, the factor that will be most effective in reducing the risk of awful things happening will be the education of people coming out of University now and it is still, I am told by my colleagues from IUPAC for instance, it is possible in most European Universities to do a Chemical Degree and never having heard about the Chemical Weapons Convention and this is a very serious omission in my mind and if that is the case then why not some kind of Hippocratic oath for people coming out with a Degree in Biology, Chemistry or Physics. It was imposed upon the medical profession we had to get in line our codes of conduct and we had to have that wave is now quite a long way behind us and there could well be a need for getting this better. Just as Doctors I understand are given some kind of moral training, perhaps other forms of scientists need similar guidance as to what is right and wrong, but I’m sure the panel would love to get in on this. Robin?

Moderator: Back in 1992, 1993, when the Treaty first was adopted for signature and the ratification processes were starting in many countries, several of us managed to get articles into learned journals and so on about the importance of the Convention, what it meant for working chemists and what it meant for the chemical industry, but I have something of a sense that that wave is now quite a long way behind us and there could well be a need for getting this better. Just as Doctors I understand are given some kind of moral training, perhaps other forms of scientists need similar guidance as to what is right and wrong, but I’m sure the panel would love to get in on this. Robin?

Pearson: Thank you. This is a topic that I too agree is extremely important. Under the Biological Weapons Convention there has been in the final declarations recommendation that this be included in the education programme, the biological. That is great in a declaration. It’s not carried through. It needs to be carried through and I think just as Ian said, safety and the environment, the drug scene. This is all part of what needs to be addressed. Chemical weapons as well and I have made the point to the British Department of the Environment which tend to lead on international policies and never having heard about the Chemical Weapons Convention and this is a very serious omission in my mind and if that is the case then why not some kind of Hippocratic oath for people coming out with a Degree in Biology, Chemistry or Physics. It was imposed upon the medical profession we had to get in line our codes of conduct and we had to have normal Treaty amendment procedures would be. So what you have to do is get a case which is important enough to command a consensus among the member States that it’s time actually to use that process for getting other things onto the Schedules. The other point which has been hammered very hard up and down this panel all afternoon, is that just because things aren’t on the Schedules doesn’t mean that they aren’t covered by the prohibitions of the Convention. So if somebody does something with a chemical which is not Scheduled, but which is something which is prohibited under the Convention, in other words uses it as a weapon, then if the law is correctly in place in a country where this happens, the law which reinforces the Chemicals Weapons Convention by making it local penal law, then you can sling them in jail. Or in some countries do even tougher things to them. Sir?

Dando: Not quite picking it up but along the same lines. If I understand David’s interpretation right, that the use of Fentanyl in Moscow was generally acceptable, then it seems to me that it could be regarded as generally acceptable to improve Fentanyl. Get something better. Apply the whole of the life sciences revolution to this cause and if everybody command a consensus among the member States that it’s time actually to use that process for getting other things onto the Schedules. The other point which has been hammered very hard up and down this panel all afternoon, is that just because things aren’t on the Schedules doesn’t mean that they aren’t covered by the prohibitions of the Convention. So if somebody does something with a chemical which is not Scheduled, but which is something which is prohibited under the Convention, in other words uses it as a weapon, then if the law is correctly in place in a country where this happens, the law which reinforces the Chemicals Weapons Convention by making it local penal law, then you can sling them in jail. Or in some countries do even tougher things to them. Sir?

Fidler: I’d like to add the additional point that it’s not only in terms of chemists undergoing training and getting their degrees being informed on these issues, but it’s a continuing process—as far as people in the chemical community, whether they’re in industry or academic labs or in Governmental labs and whether it’s on the national scale from my parochial experience with the US National Academies or the American Chemical Society or more on an international basis through Organisations like IUPAC and ICCA—to continue to inform the greater chemical community on these issues and I think at first blush a lot of chemists may say well, chemical weapons, I have nothing to do with chemical weapons so why should I be interested in it and that’s why it’s important to educate the community on this.

Moderator: Thank you very much. We’ve time for one more if somebody has any point they want to raise? Please, Peter?

[Unable to hear this question]

Moderator: I think that’s a very important comment. Does anybody on the panel want to pick it up or are we just largely in agreement? Malcolm?

Fidler: I’d like to add the additional point that it’s not only in terms of chemists undergoing training and getting their degrees being informed on these issues, but it’s a continuing process—as far as people in the chemical community, whether they’re in industry or academic labs or in Governmental labs and whether it’s on the national scale from my parochial experience with the US National Academies or the American Chemical Society or more on an international basis through Organisations like IUPAC and ICCA—to continue to inform the greater chemical community on these issues and I think at first blush a lot of chemists may say well, chemical weapons, I have nothing to do with chemical weapons so why should I be interested in it and that’s why it’s important to educate the community on this.

Moderator: Thank you very much. We’ve time for one more if somebody has any point they want to raise? Please, Peter?

[Unable to hear this question]

Moderator: I think that’s a very important comment. Does anybody on the panel want to pick it up or are we just largely in agreement? Malcolm?

Dando: Not quite picking it up but along the same lines. If I understand David’s interpretation right, that the use of Fentanyl in Moscow was generally acceptable, then it seems to me that it could be regarded as generally acceptable to improve Fentanyl. Get something better. Apply the whole of the life sciences revolution to this cause and if everybody
then started doing it, I think we end up with where Ambassador Wagner started, that we blow a hole in the Chemical Weapons Convention and we end up with a third and perhaps a fourth generation of chemical weapons.

**Moderator:** Thank you. We did have one final question down here so?

[Unable to hear this question]

**Moderator:** This is certainly at the nub of the problem that we’re all discussing. There’s no doubt in my mind that the Chemical Weapons Convention, if correctly applied in terms of its letter and its spirit, does not permit the use of chemicals in these particular kinds of circumstances, but there is a strong feeling and it does come from the international humanitarian law aspects as well as others, that maybe there are some kind of exceptions of this type that we ought to be able to find a way round. My concern is, if you start looking for ways to allow one or two of these very particular and very laudable exceptions to be permitted, then the whole thing could start to unravel. So one would have to take very specific action to permit certain things where there was a consensus that this was important and do it in a way which did not start the whole Chemical Weapons Convention unravelling, because otherwise you’ll find that more and more exceptions will come along and the Chemical Weapons Convention will just be consigned on the scrapheap of legal history. That’s just my personal view. I don’t know if anybody else…

**Fidler:** I just want to make a general point about interpreting the CWC and other bodies of international law. You can’t interpret and operate the CWC in clinical isolation from other areas of international law. No treaty, no area of international law, works that way. So it’s not really prudent to think about it in terms of the CWC versus international humanitarian law, or to think of the CWC versus international human rights law. If we’re worried about the abuse of toxic chemicals for domestic law enforcement purposes, international human rights law is a critical body of law to bring to bear on that problem as well as the CWC. I think it’s a matter of bringing these bodies of law together in ways that I think Robin also talked about, which is critically important for the future of the CWC.

**Coupland:** Thank you very much. First of all, I think it’s important that the wording of Article 36 of Additional Protocol One to the Geneva Conventions is recalled though. I won’t bore you with that. Just make reference to Article 36 of that Protocol. Bear in mind that the CWC is an absolute prohibition, but in international humanitarian law there’s another principle that kicks in before. For instance, you can decide whether a weapon that causes superfluous injury, that is the principle of military necessity and what we’ve not really had time to discuss is actually the military utility of a calming or an incapacitant. If you look at the medical literature Fentanyl takes 15 minutes. Inhaled Fentanyl takes 15 minutes before it gives pain relief. Now that is completely different from the speed on onset of the irritant effect of a riot control agent. What is the military utility associated with such a slow onset of something that you can’t control the dose of very easily by vapor? Therefore, if, for instance, you were going to use a calming as opposed to a riot control agent against a mixed group of combatants and non-combatants, you have 15 minutes. 15 minutes before the combatants can do a lot of very horrible things to those civilians that they are supposedly using as a human shield. So the speed of onset question whilst it’s pharmacological is a critical element in the military utility of these proposed agents.

**Moderator:** Thank you.

[Unable to hear this question]

**Moderator:** Well, the declaration requirements to some extent are there, but they are not being very well fulfilled I think. Does anybody want to comment? I don’t think we can help you very much, but it’s certainly a very important point.

At this point I really am going to have to draw proceedings to a close. I’d ask you to thank once again our panel members.

***