

**BASIC DOCUMENTS OF THE CONFERENCE ON DISARMAMENT
RELATED TO THE PROHIBITION OF THE PRODUCTION OF
FISSILE MATERIAL FOR NUCLEAR WEAPONS OR OTHER
NUCLEAR EXPLOSIVE DEVICES**

Compilation prepared by the Secretariat

<u>Symbol</u>	<u>Subject of the document</u>
CD/1299	Report of Ambassador Gerald E. Shannon of Canada on Consultations on the Most Appropriate Arrangement to Negotiate a Treaty Banning the Production of Fissile Material for Nuclear Weapons or Other Nuclear Explosive Devices
CD/1302	Canada: Letter transmitting a publication containing papers presented at the Cut-Off Convention Workshop held in Toronto, Ontario, from 16 to 19 January 1995
CD/1304	Canada: Letter transmitting a publication entitled "Verifying a fissile material cut-off: an exploratory analysis of potential diversion scenarios"
CD/1441	United States of America: Statement by President Clinton for the opening of the 1997 session of the CD
CD/1485	Canada: Working paper with regard to an Ad Hoc Committee on a Fissile Material Cut-off Treaty
CD/1490	United States of America: Statement from the President of the United States upon the occasion of the Opening Plenary of the 1998 Session of the Conference on Disarmament
CD/1492	Austria: Draft decision on the reestablishment of an ad hoc committee to negotiate a treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices



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- CD/1516 Japan: Seminar Conference on Technical Issues for a Fissile Material Cut-off Treaty, 11 and 12 May 1998, Geneva, Chairman's Summary
- CD/1542 Sweden: Joint Declaration relating to Nuclear Disarmament of 9 June 1998 by the Foreign Ministers of Brazil, Egypt, Ireland, Mexico, New Zealand, Slovenia, South Africa and Sweden
- CD/1545 Algeria: Proposal under item 1 of the agenda of the Conference on Disarmament" Cessation of the nuclear arms race and nuclear disarmament"
- CD/1547 Decision on the establishment of an ad hoc committee under agenda item 1 entitled "Cessation of the nuclear arms race and nuclear disarmament"
- CD/1548 Statement made by the President following the adoption of decision CD/1547 on the establishment of an ad hoc committee under agenda item 1 entitled "Cessation of the nuclear arms race and nuclear disarmament"
- CD/1549 Statement by the Group of 21
- CD/1550 Austria: Press statement by the Austrian Foreign Minister Wolfgang Schussel in his capacity as President of the Council of the European Union on the decision of the Conference on Disarmament to establish an ad hoc committee to negotiate a treaty banning the production of fissile material used in nuclear weapons issued in Vienna on 11 August 1998
- CD/1551 Philippines: Statement of the Philippine Secretary of Foreign Affairs, Hon. Domingo L. Siazon, on the establishment of an ad hoc committee to negotiate a treaty banning the production of fissile material
- CD/1555 Report of the Ad Hoc Committee under item 1 of the agenda entitled "Cessation of the nuclear arms race and nuclear disarmament"
- CD/1578 Canada: Working Paper - Elements of an Approach to Dealing With Stocks of Fissile Materials for Nuclear Weapons or Other Nuclear Explosive Devices
- CD/1590 Japan: Report of the Tokyo Forum for Nuclear Non-Proliferation and Disarmament
- CD/1593 Finland: Declaration of the European Union on the Fissile Material Cut-off Treaty Negotiations
- CD/1614 Brazil, Egypt, Ireland, Mexico, New Zealand, South Africa and Sweden: A portion of the text adopted by consensus by the 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation Of Nuclear Weapons, regarding practical steps for the systematic and progressive efforts to implement Article VI of the Treaty

- CD/1671 South Africa: Working Paper: The Possible Scope and Requirements of the Fissile Material Treaty (FMT)
- CD/1671/Add.1 South Africa: Addendum to the Working Paper: The Possible Scope and Requirements of the Fissile Material Treaty (FMT)
- CD/1676 Netherlands: Summary of the open-ended informal meeting on a treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices, held in Geneva on 7 June 2002
- CD/1683 Ireland: Paper submitted by Egypt on behalf of the New Agenda countries to the First Session of the Preparatory Committee for the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons
- CD/1691 Netherlands: summary of the second open-ended informal meeting in the framework of the Netherlands' FMCT-Exercise, on a treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices, held in Geneva on 25 September 2002
- CD/1705 Netherlands: Summary of the fourth open-ended informal meeting in the framework of the Netherlands' FMCT-Exercise on a treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices, held in Geneva on 4 April 2003
- CD/1707 New Zealand: Paper submitted by New Zealand on behalf of the New Agenda Countries to the Second Session of the Preparatory Committee for the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons
- CD/1709 United Kingdom of Great Britain and Northern Ireland: Working paper submitted to the Second Session of the Preparatory Committee for the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, held in Geneva from 28 April to 9 May 2003
- CD/1714 Japan: Working Paper on a Treaty to Ban the Production of Fissile Material for Nuclear Weapons and Other Nuclear Explosive Devices
- CD/1719 Netherlands: Summary of the fifth open-ended informal meeting in the framework of the Netherlands' FMCT-exercise, on a treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices, held in Geneva on 26 September 2003
- CD/1724 Italy on behalf of the European Union: The EU strategy against proliferation of weapons of mass destruction", adopted by the European Council held in Brussels on 12 – 13 December 2003

- CD/1734 Netherlands: Summary of the sixth open-ended informal meeting in the framework of the Netherlands' FMCT-Exercise, on a treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices, held in Geneva on 2 April 2004
- CD/1751 Netherlands on behalf of the European Union: Common Position of the European Union to the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, of 25 April 2005
- CD/1752 Malaysia: Working paper by the members of the Group of Non-Aligned States Parties to the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons held in New York from 2 to 27 May 2005
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CONFERENCE ON DISARMAMENT

CD/1299
24 March 1995

Original: ENGLISH

REPORT OF AMBASSADOR GERALD E. SHANNON OF CANADA ON CONSULTATIONS ON THE MOST APPROPRIATE ARRANGEMENT TO NEGOTIATE A TREATY BANNING THE PRODUCTION OF FISSILE MATERIAL FOR NUCLEAR WEAPONS OR OTHER NUCLEAR EXPLOSIVE DEVICES

At the beginning of last year's session, I was tasked with seeking the views of members of the most appropriate arrangement to negotiate a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices.

As you know, I held numerous consultations, both bilaterally and with groups and reported formally to this plenary on five occasions in 1994. Mid-way through the last session, consensus was reached that the CD was the appropriate forum to negotiate a treaty on this issue. At the end of the session in September, while there was no agreement on a mandate for an ad hoc committee, there was agreement, in principle, that an ad hoc committee be established on this issue as soon as a mandate had been agreed. At that time, the CD asked me to continue consultations on an appropriate mandate for an ad hoc committee in order to enable the convening of this Ad Hoc Committee as soon as possible.

At the beginning of this year's session, the Conference decided to continue consultations on a mandate.

I have since held numerous consultations, and am pleased to report that delegations have agreed that the mandate for such a committee should be based on resolution 48/75L of the United Nations General Assembly, and reads as follows:

1. *The Conference on Disarmament decides to establish an ad hoc committee on a "ban on the production of fissile material for nuclear weapons or other nuclear explosive devices".*
2. *The Conference directs the Ad Hoc Committee to negotiate a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices.*
3. *The Ad Hoc Committee will report to the Conference on Disarmament on the progress of its work before the conclusion of the 1995 session.*

During the course of my consultations, many delegations expressed concerns about a variety of issues relating to fissile material, including the appropriate scope of the Convention. Some delegations expressed the view that this mandate would permit consideration in the Committee only of the future production of fissile material. Other delegations were of the view that the mandate would permit consideration not only of future but also of past production. Still others were of the view that consideration should not only relate to production of fissile material (past or future) but also to other issues, such as the management of such material.

It has been agreed by delegations that the mandate for the establishment of the Ad Hoc Committee does not preclude any delegation from raising for consideration in the Ad Hoc Committee any of the above noted issues.

Delegations with strong views were able to join consensus so we could all move forward on this issue. This means that an ad hoc committee on cut-off can be established and negotiations can begin on this important topic. This has for some time been the common objective of all delegations of this Conference.

I have appreciated the productive contribution and support of all delegations in arriving at this result.

CONFERENCE ON DISARMAMENT

CD/1302
30 March 1995

Original: ENGLISH

LETTER DATED 29 MARCH 1995 FROM THE PERMANENT REPRESENTATIVE
OF CANADA ADDRESSED TO THE DEPUTY SECRETARY-GENERAL OF THE
CONFERENCE ON DISARMAMENT TRANSMITTING A PUBLICATION CONTAINING
PAPERS PRESENTED AT THE CUT-OFF CONVENTION WORKSHOP HELD IN
TORONTO, ONTARIO, FROM 16-19 JANUARY 1995

I have the honour to transmit to you this volume which contains the
papers presented at the Cut-off Convention Workshop, held in Toronto, Canada,
from 16-19 January 1995. The papers are presented to allow those who could
not be present to benefit from the results of the Workshop.

I trust these papers will be of assistance to delegations as we commence
negotiations in the Ad Hoc Committee on a treaty banning the production of
fissile material for nuclear weapons or other nuclear explosive devices.

I would be grateful if the necessary arrangements could be made for
distribution of the volume to all member and participating non-member State
delegations, under cover of a CD number.

(Signed): Gerald E. Shannon
Ambassador
and
Permanent Representative

CONFERENCE ON DISARMAMENT

CD/1304
4 April 1995

Original: ENGLISH

LETTER DATED 3 APRIL 1995 FROM THE DEPUTY PERMANENT REPRESENTATIVE
OF CANADA ADDRESSED TO THE DEPUTY SECRETARY-GENERAL OF THE
CONFERENCE ON DISARMAMENT TRANSMITTING A PUBLICATION ENTITLED
"VERIFYING A FISSILE MATERIALS CUT-OFF: AN EXPLORATORY ANALYSIS
OF POTENTIAL DIVERSION SCENARIOS"

I have the honour to transmit to you a new Canadian publication, entitled
"Verifying a fissile materials cut-off: an exploratory analysis of potential
diversion scenarios".

I would be grateful if the necessary arrangements could be made for its
distribution to all member and participating non-member State delegations,
under cover of a CD number.

(Signed) Andrew McAlister
Minister and Deputy
Permanent Representative to
the Conference on Disarmament

CONFERENCE ON DISARMAMENT

CD/1441
22 January 1997

Original: ENGLISH

LETTER DATED 21 JANUARY 1997 ADDRESSED TO THE SECRETARY-GENERAL
OF THE CONFERENCE FROM THE PERMANENT REPRESENTATIVE OF THE UNITED
STATES OF AMERICA TO THE CONFERENCE ON DISARMAMENT TRANSMITTING A
STATEMENT BY PRESIDENT CLINTON FOR THE OPENING OF THE 1997 SESSION
OF THE CONFERENCE ON DISARMAMENT

Attached is a copy of a Presidential Statement for the opening of the
1997 session of the Conference on Disarmament issued on 17 January 1997.

I would be grateful if this could be issued as an official document of
the Conference on Disarmament and distributed to all member States and non-
member participant States of the Conference.

(Signed): Stephen J. Ledogar
Ambassador
Permanent Representative

Statement by President Clinton for the Opening of the 1997 CD Session

In my message to the Conference on Disarmament three years ago, I urged the negotiation of a comprehensive nuclear test ban at the earliest possible time. Your success in that negotiation, and the subsequent adoption of the Treaty by the United Nations General Assembly, will help create a safer world. The successful conclusion of the negotiation is evidence of the Conference's potential to respond to the challenges it now faces.

Now the Conference on Disarmament should take the next steps on the road to a more secure world:

-- prompt conclusion of a ban on producing fissile material for use in nuclear explosives. Effectively cutting off the spigot for more nuclear weapons is a necessary step toward, and would greatly contribute to, the ultimate goal of nuclear disarmament.

-- negotiation as soon as possible of a comprehensive, global ban on anti-personnel landmines. These weapons of war have caused terrible suffering to innocent civilians and represent an enormous obstacle to restoring a more hopeful life after a conflict has ended. All the children of the world deserve to walk the earth in safety.

I call on the Conference to press forward with a renewed sense of purpose, to demonstrate to the world its capability to take these key steps to advance the process of nuclear and conventional disarmament.

CONFERENCE ON DISARMAMENT

CD/1485
21 January 1998

Original: ENGLISH

CANADA

WORKING PAPER WITH REGARD TO AN AD HOC COMMITTEE ON A FISSILE MATERIAL CUT-OFF TREATY

Canada considers that

- The core mandate from the CD Special Coordinator's report of 1995 is the only broadly acceptable basis for focused CD work.
- Developments since 1995 (e.g. NPT Extension; START Process; CTBT) have, however, suggested the value of reconsidering the context in which that core mandate was put forward.
- Canada's assessment is, accordingly, that the context or presentation of the core mandate could be redefined.
- One possible way to do so would be for a CD Presidential Statement to be made in the process of a CD decision to establish an Ad Hoc Committee on a FMCT with the core mandate.
- If this is seen as useful, a suggested draft of such a Statement is set out below; Canada consider that substantive components are self-explanatory.

DRAFT PRESIDENTIAL STATEMENT

On the basis of a consensus reached by all members of this Conference, I have been requested to register the following points. These points are critical to the agreement of this Conference to initiate negotiations on a "non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices" on the basis of the core mandate contained in CD/1299 of 24 March 1995. In the interest of brevity I wish to refer to such an agreement by the acronym FMCT (Fissile Material Cut-Off Treaty).

These points are:

1. it is agreed that an FMCT, if it is to be fully effective, must contribute to both nuclear disarmament and to nuclear non-proliferation objectives;
2. as such, and without prejudging the positions of states prior to the conclusion of the negotiations, it is recognized that the overall effectiveness and cost-benefit of an FMCT will be maximized by the participation and adherence of all nuclear-capable states;

3. it is agreed, however, that adherence to an FMCT is a prerogative of sovereign national governments and no steps will be taken in the negotiations to prejudice or require such adherence;
4. all members of the CD again acknowledge that it was recognized in CD/1299 that a variety of issues related to an FMCT have been raised by a number of delegations and these issues can be raised for consideration by the Ad Hoc Committee during the negotiations; should consensus be reached on one or more of those issues, provisions may be incorporated into the FMCT to deal appropriately with them; this, of course, does not preclude any delegation from raising any additional relevant issue as the negotiations progress; and,
5. it is recognized that many delegations consider stockpiles of fissile material resulting from production prior to the entry into force of an FMCT to be important to the future viability and effectiveness of an FMCT. While dealing with this matter is not included within the specific scope of the FMCT negotiations, states members of the CD, and most particularly the Nuclear-Weapons States members, which possess fissile material usable for nuclear weapons or other nuclear explosive devices and which material is not subject to IAEA safeguards, should pursue appropriate measures designed to reduce such stockpiles and/or to place declared excess material under IAEA safeguards. In particular transparency and other measures should be developed to ensure that such nuclear material including nuclear material from nuclear warheads destroyed under the START Process will never again be used in nuclear weapons. CD Member States, and the international community more broadly, will be kept informed of developments in this regard in the CD's Ad Hoc Committee on Nuclear Disarmament on the context of the FMCT negotiations.

As noted, these points are seen as critical by states members of this Conference to the agreement reached to establish an Ad Hoc Committee on an FMCT with the mandate to negotiate a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices. On this basis, I propose that the Ad Hoc Committee be hereby established and that it will report to the Conference on the progress of its work before the conclusion of the 1998 session.

If there is no objection to this understanding, I will conclude that the Conference is in full agreement."

CONFERENCE ON DISARMAMENT

CD/1490

28 January 1998

Original: ENGLISH

UNITED STATES OF AMERICA

Statement from the President of the United States Upon the Occasion of the Opening Plenary of the 1998 Session of the Conference on Disarmament

As you resume your critical efforts to strengthen global security, I pledge the full support of the United States Delegation in taking the next steps in the nuclear disarmament process and banning anti-personnel landmines from the face of the earth. No issues are more important today to this body's work than a cutoff of fissile material production for nuclear explosives and a worldwide ban on the export of anti-personnel landmines. If the Conference can promptly conclude these accords, complementing deep bilateral reductions in nuclear arms and the Ottawa Convention, we will take important steps on the road to a world that is free of nuclear weapons and safe for children to tread. I am confident the Conference on Disarmament can meet the challenge.

CONFERENCE ON DISARMAMENT

CD/1492

3 February 1998

Original: ENGLISH

AUSTRIA

Draft decision on the reestablishment of an ad hoc committee
to negotiate a treaty banning the production of fissile material
for nuclear weapons or other nuclear explosive devices

The Conference on Disarmament decides to reestablish under item 1 of its agenda entitled "Cessation of the nuclear arms race and nuclear disarmament" an ad hoc committee which shall negotiate, on the basis of the report of the Special Coordinator (CD/1299) and the mandate contained therein, a treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices.

The Ad Hoc Committee shall present a report to the Conference on Disarmament on the progress of its work before the conclusion of the 1998 session.

CONFERENCE ON DISARMAMENT

CD/1516

28 May 1998

Original: ENGLISH

JAPAN

Seminar Conference on Technical Issues for a Fissile Material Cut-off Treaty 11 and 12 May 1998, Geneva Chairman's Summary

1. INTRODUCTION

The "Seminar Conference on Technical Issues concerning a Fissile Material Cut-off Treaty" was held at the Palais des Nations in Geneva, from 11 to 12 May 1998 under the sponsorship of the Japanese Ministry of Foreign Affairs. Governmental experts in charge of nuclear issues from Australia, Belgium, Canada, Chile, Egypt, France, Germany, India, Israel, Japan, Mexico, South Africa, Switzerland, the United Kingdom and the United States of America took part in the Seminar in their private capacities. Also, experts of the International Atomic Energy Agency (IAEA) and the United Nations Institute for Disarmament Research (UNIDIR) attended the seminar, as did a number of leading nongovernmental experts. Many delegates to the Conference on Disarmament also took part in discussions. Generous logistic assistance was provided by the Secretariat of the Conference on Disarmament for the seminar. My gratitude is extended to all those individuals and organizations.

It is difficult to summarize the content of all the discussions held over the past one and a half days while still doing justice to all the points made by the participants. Therefore, the following is an account of only the salient points and the main thrusts of the discussions that took place, as seen by myself as the chairman of the seminar. While I will do my utmost to be as objective and fair as possible, it is with the awareness that my account may not be to the complete satisfaction of the participants, and it is with their abundant indulgence that I make the following summary of the conference.

One and a half days of informal but intensive meetings served as a valuable opportunity for all the participants to have a frank and in-depth exchange of views on the important question of how to address various technical issues concerning a FMCT.

Of course, the Seminar was primarily intended for deepening understanding

among those with diverse views, and not for the adoption of any agreed documents or statements. I am pleased to state that all the participants felt the last one and a half days of discussions were useful and rewarding in terms of deepening their understanding of important technical issues and in gauging the practicability of various ideas concerning a FMCT. It is hoped that the discussions in the Seminar will be conducive to further promoting our groundwork for the commencement of FMCT negotiations.

2. TECHNICAL ISSUES CONCERNING THE COVERAGE OF FMCT

The seminar opened with an excellent presentation concerning various significance of a FMCT with regard to arms control and disarmament.

The issue of possible coverage of a FMCT was discussed in the first session with particular attention to the terms of the Shannon Report.

Participants were of the opinion that a FMCT should prohibit the production of fissile material for use in nuclear weapons or other nuclear explosive devices, and therefore that all plutonium, highly enriched uranium (HEU) must be placed under strict verification mechanism of this treaty. It was also pointed out that Uranium-233 should be treated similarly.

Participants also discussed how to deal with the issue of HEU used for naval propulsion purposes in the context of a FMCT. Some stressed that such HEU should be placed under appropriate material control and accounting. It was recognized that technical aspects of this issue merits further consideration.

The issue of fissile materials not directly usable for nuclear weapons such as low enriched uranium (LEU) and spent fuels were also discussed. While many emphasized the need to address these materials for greater assurance against diversion, it was cautioned that careful consideration is necessary in terms of financial implication.

It was the view of many participants that tritium should be out of the coverage of a FMCT.

Some participants raised the issue of existing stockpiles. In this connection, several variations of a potential scope of a FMCT was presented. Some others were of the

opinion that the scope of the treaty should be limited to the future production. A phased approach for greater transparency and irreversibility was also considered.

3. VERIFICATION MECHANISM UNDER FMCT

The issue of verification was considered in a part of the first session and in the entire second session.

A participant from nuclear weapon State stated that they are in the process of considering relevant issues taking into consideration both technical aspects and usefulness of specific measures. It was suggested by another participant that nuclear weapon States could share with non nuclear weapon States information on their relevant experience and technical problems they face.

In principle, participants shared the opinion that the purpose of the verification regime under a FMCT should be detecting both the diversion of fissile material and any undeclared enrichment or reprocessing. The issue of importation of relevant materials were also raised.

Concerning possible structure of a verification mechanism under the treaty, many participants were of the opinion that it would include routine-type inspections that would correspond roughly to the current comprehensive safeguards measures of the IAEA. It was also a shared view that some sort of challenge inspections are worth consideration. It was recognized during the discussions that if the level of assurance ensured through routine-type inspections was limited, the challenge inspections would play an important role. In addition, it was pointed out that some complementary measures along the lines of the Additional Protocol should be considered.

Also discussed was whether a legal instrument for the verification mechanism would take the form of verification agreements / arrangements like the case in the NPT.

Participants considered several verification alternatives that could be adopted under the treaty. Sets of facilities to be covered and corresponding verification measures, as well as each alternative's trade-off between the expected level of assurances and necessary costs were presented.

It was a shared view among the participants that the applicability of existing IAEA safeguards mechanism to a FMCT should be considered carefully. Difference may arise between these two because of objectives and obligations of a FMCT that is qualitatively different from those of the NPT, and also because of technical development in the field of verification measures. Therefore under a FMCT, important technical parameters such as "significant quantities" and "timeliness goal" may be different from those of existing IAEA safeguards system.

Many participants stressed the need of developing national systems such as a state's system of accounting for and control of nuclear material (SSAC) and / or a physical protection system in nuclear weapon State as well as non parties to the NPT. Adequate information to be declared by States should also be considered.

Participants pointed out the need to consider problems arising from facilities in nuclear weapon States that are not designed to be placed under safeguards. Problems also arise from those states where military and civilian fuel cycle are not entirely separated. These problems will pose technical challenges, and in this context, it was suggested that prevention of leakage of information with proliferation risk would be an important issue for consideration.

The issue of termination of verification under a FMCT need to be further addressed, if the coverage of verification mechanism under the Treaty is similar to comprehensive safeguards system.

Many participants regarded the IAEA as the most suitable body to carry out verification tasks under a FMCT. Caution was expressed in this context that, as a FMCT would certainly entail a significant expansion of verification-related activities, due consideration is necessary with a view to acquiring additional infrastructure including competent human resources for inspection. It was made clear that the Agency remains ready to help in the process of further discussions and negotiations in whatever way considered appropriate and relevant by States.

It was the view shared by all participants that each of these verification issues merit further in-depth discussions.

4. ENSURING TRANSPARENCY AND IRREVERSIBILITY

In the third and last session, issues of ensuring transparency and irreversibility was addressed. While issues there may be out of the scope of a FMCT, ensuring transparency and irreversibility were viewed by many participants as an extremely important element for consideration.

It was pointed out by a presenter that transparency is an essential component of irreversibility, and that, to ensure irreversibility, it would be desirable to take several steps.

It was also pointed out that stockpiles may contain sensitive information in relation to nuclear non-proliferation. It was suggested that useful experience could be learned from EURATOM as well as from South Africa in this respect. It was also noted that, as a first step, military direct-use material withdrawn from dismantled weapons and such material considered excess and designated for transfer into the civilian use, should be declared and properly managed in parallel with a FMCT. Caution was expressed, however, that such efforts would be more successful were they pursued independently with a FMCT, rather than addressed by the treaty itself. A participant stressed that a leap from secrecy to transparency is a political decision.

Many participants expressed their interest in an Australian proposal concerning a phased approach with a FMCT being the core and the first step of it.

SEMINAR CONFERENCE ON TECHNICAL ISSUES
FOR A FISSILE MATERIAL CUT-OFF TREATY

1.DATE

Monday, 11 May and Tuesday, 12 May

2.VENUE

Room H3, Palais des Nations, Geneva, Switzerland

3.PURPOSE

Through seminar-style deliberations focusing on technical aspects of a fissile material cut-off treaty, this conference aims at providing a basis for future negotiations of the treaty. In order to focus on technical aspects of the treaty, this conference does not discuss political issues related to the commencement of the treaty.

4.CHAIRMAN

Mr.Hiroyoshi KURIHARA
Senior Executive Director, Nuclear Material Control Center,
Tokyo, Japan

5.PARTICIPANTS

- (1) Governmental experts from countries concerned, one expert from IAEA and several non-governmental experts
- (2) Members of CD delegations

S c h e d u l e

11 May(Monday)

10:00 Opening

- introductory remarks by Ambassador Akira HAYASHI
- keynote remarks by Professor George BUNN

10:30 coffee break

10:50-13:00 SESSION 1 : Fissile materials for nuclear weapons and other nuclear explosive devices

- What does "Shannon Mandate" mean in technical terms?
(What is to be prohibited and what is to be placed under safeguard?)
 - plutonium
 - HEU
 - LEU
 - spent fuels
 - naval fuels
 - other issues
- Presentation by
 - Mr. Warren STERN, Senior Technical Adviser, Nuclear Safeguards and Technology Division, ACDA, U.S.A
 - Dr. Annette SCHAPER, Senior Research Associate,
Peace Research Institute, Frankfurt
- General discussion among experts
- Questions and answers with CD delegates

14:30 SESSION 2: Verification

- objective
- structure
- facilities to be covered
- facilities that are not designed to be subject to safeguards from the beginning
- preventing leakage of information with proliferation risk
- other specific issues

- Presentation by
 - Mr.Demetrius PERRICOS, Director, Division of Operations(A),
Department of Safeguards, IAEA
 - Mr.Kinji KOYAMA, Senior Fellow, Center for the Promotion and
Non-proliferation, Japan
- General discussion among experts
- Questions and answers with CD delegates

16:15 Coffee break

16:30-18:00 SESSION 2 continued

12 MAY(Tuesday)

10:30 SESSION 3: Ensuring transparency and irreversibility

- measures for enhancing transparency
- measures for ensuring irreversibility
- approach to move ahead

- Presentation by
 - Ms.Rebecca JOHNSON, Acronym Institute
- General discussion among experts
- Questions and answers with CD delegates

12:00 coffee break

12:30 Summary by the Chairman

Closing

LIST OF PARTICIPANTS

1. Chairman

Mr. Hiroyoshi KURIHARA, Senior Executive Director,
Nuclear Material Control Center, Japan

2. Keynote Speaker and Presenters

Prof. George BUNN, Professor, Center for International Security and Arms
Control, Stanford University

Ms. Rebecca JOHONSON, Acronym Institute

Mr. Kinji KOYAMA, Senior Fellow, Center for the Promotion of Disarmament
and Non-Proliferation, Japan

Mr. Demetrius PERRICOS, Director, Division of Operation(A), Department of
Safeguards, IAEA

Dr. Annette SCHAPER, Senior Research Associate, Peace Research Institute
in Frankfurt, Germany

Mr. Warren STERN, Senior Technical Adviser,
Nuclear Safeguards and Technology Division, ACDA, U. S. A.

3. Other Participants (Governmental experts and NGO representatives)

Mr. Jaime ACUNA, Minister Counsellor,
Permanent Mission of Chili to the CD

Mr. Graham ANDREW, Department of Trade and Industry, U. K.

Dr. K. BALU, Head of Nuclear Waste Management Group, Department of Atomic
Energy, India

Mr. John CARLSON, Director, Safeguard Office, Australia

Mr. Emmanuel COCHER, Disarmament Division, Ministry of Foreign Affairs,
France

Mr. Amnon EFRAT, Minister Counsellor,
Permanent Mission of Israel to the CD

Mr. Ibrahim Aly Saleh El-SHAHAWI, Chief of Nuclear Fuel Department,
Nuclear Plant Authority, Ministry of Electricity and Energy,
Egypt

Mr. Andreas FRIEDRICH, Chief of Section, Federal Department of Foreign
Affairs, Switzerland

Mr. Mark GLAUSER, Second Secretary, Permanent Mission of Canada to the CD

Dr. Peter HOWARTH, Director, Nuclear Non-Proliferation Policy Section,
Nuclear Policy Branch, Australia

Dr. Max KELLER, Chief of Section, Atomic, Biological and Chemical
Laboratory, Spiez, Switzerland

Mr. Bruno LE MAIRE, Non-Proliferation Division, Ministry of Foreign
Affairs, France

Dr. Patricia M. LEWIS, Director, United Nations Institute for Disarmament
Research

Mr. Andre MERNIER, Ambassador, Permanent Mission of Belgium to the CD

Dr. Tariq RAUF, Director, International Organizations and Non-Proliferation Project at the
Center for Non-Proliferation Studies, Monterey Institute of International
Studies

Mr. Michel RICHARD, Deputy-Director, International Relations Direction,
Atomic Energy Commission, France

Mr. Navtej SARNA, Counsellor, Embassy of India in Tehran

Mr. Beat WIELAND, Chief of Section, Federal Office of Energy, Switzerland

Dr. Nick von WIELLIGH, Senior Manager of Nuclear Non-Proliferation of the
Atomic Energy Cooperation, South Africa

CONFERENCE ON DISARMAMENT

CD/1542

11 June 1998

Original: ENGLISH
and SPANISH

LETTER DATED 10 JUNE 1998 FROM THE PERMANENT REPRESENTATIVE OF SWEDEN ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE ENGLISH AND SPANISH TEXTS OF THE JOINT DECLARATION RELATING TO NUCLEAR DISARMAMENT OF 9 JUNE 1998 BY THE FOREIGN MINISTERS OF BRAZIL, EGYPT, IRELAND, MEXICO, NEW ZEALAND, SLOVENIA, SOUTH AFRICA AND SWEDEN

I have the honour to transmit to you the English and Spanish texts of the Joint Declaration relating to nuclear disarmament of 9 June 1998 by the Foreign Ministers of Brazil, Egypt, Ireland, Mexico, New Zealand, Slovenia, South Africa and Sweden.

I shall be grateful if the Joint Declaration is circulated as an official document of the Conference on Disarmament.

(Signed) Lars Norberg
Ambassador
Permanent Representative

JOINT DECLARATION BY THE MINISTERS FOR FOREIGN AFFAIRS OF

BRAZIL, EGYPT, IRELAND, MEXICO, NEW ZEALAND
SLOVANIA, SOUTH AFRICA AND SWEDEN

1. We, the Ministers for Foreign Affairs of Brazil, Egypt, Ireland, Mexico, New Zealand, Slovenia, South Africa and Sweden have considered the continued threat to humanity represented by the perspective of the indefinite possession of nuclear weapons by the nuclear-weapon states, as well as by those three nuclear-weapons-capable states that have not acceded to the Non-Proliferation Treaty, and the attendant possibility of use or threat of use of nuclear weapons. The seriousness of this predicament has been further underscored by the recent nuclear tests conducted by India and Pakistan.

2. We fully share the conclusion expressed by the commissioners of the Canberra Commission in their Statement that "the proposition that nuclear weapons can be retained in perpetuity and never used - accidentally or by decision - defies credibility. The only complete defence is the elimination of nuclear weapons and assurance that they will never be produced again."

3. We recall that the General Assembly of the United Nations already in January 1946 - in its very first resolution - unanimously called for a commission to make proposals for "the elimination from national armaments of atomic weapons and all other major weapons adaptable to mass destruction." While we can rejoice at the achievement of the international community in concluding total and global prohibitions on chemical and biological weapons by the Conventions of 1972 and 1993, we equally deplore the fact that the countless resolutions and initiatives which have been guided by similar objectives in respect of nuclear weapons in the past half century remain unfulfilled.

4. We can no longer remain complacent at the reluctance of the nuclear-weapon states and the three nuclear-weapons-capable states to take that fundamental and requisite step, namely a clear commitment to the speedy, final and total elimination of their nuclear weapons and nuclear weapons capability and we urge them to take that step now.

5. The vast majority of the membership of the United Nations has entered into legally-binding commitments not to receive, manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices. These undertakings have been made in the context of the corresponding legally binding commitments by the nuclear-weapon states to the pursuit of nuclear disarmament. We are deeply concerned at the persistent reluctance of the nuclear-weapon states to approach their Treaty obligations as an urgent commitment to the total elimination of their nuclear weapons.

6. In this connection we recall the unanimous conclusion of the International Court of Justice in its 1996 Advisory Opinion that there exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control.

7. The international community must not enter the third millennium with the prospect that the maintenance of these weapons will be considered legitimate for the indefinite future, when the present juncture provides a unique opportunity to eradicate and prohibit them for all time. We therefore call on the governments of each of the nuclear-weapon states and the three nuclear-weapons-capable states to commit themselves unequivocally to the elimination of their respective nuclear weapons and nuclear weapons capability and to agree to start work immediately on the practical steps and negotiations required for its achievement.

8. We agree that the measures resulting from such undertakings leading to the total elimination of nuclear weapons will begin with those states that have the largest arsenals. But we also stress the importance that they be joined in a seamless process by those with lesser arsenals at the appropriate juncture. The nuclear-weapon states should immediately begin to consider steps to be taken to this effect.

9. In this connection we welcome both the achievements to date and the future promise of the START process as an appropriate bilateral, and subsequently plurilateral mechanism including all the nuclear-weapon states, for the practical dismantlement and destruction of nuclear armaments undertaken in pursuit of the elimination of nuclear weapons.

10. The actual elimination of nuclear arsenals, and the development of requisite verification regimes, will of necessity require time. But there are a number of practical steps that the nuclear-weapon states can, and should, take immediately. We call on them to abandon present hair-trigger postures by proceeding to de-alerting and de-activating their weapons. They should also remove non-strategic nuclear weapons from deployed sites. Such measures will create beneficial conditions for continued disarmament efforts and help prevent inadvertent, accidental or unauthorized launches.

11. In order for the nuclear disarmament process to proceed, the three nuclear-weapons-capable states must clearly and urgently reverse the pursuit of their respective nuclear weapons development or deployment and refrain from any actions which could undermine the efforts of the international community towards nuclear disarmament. We call upon them, and all other states that have not yet done so, to adhere to the Non-Proliferation Treaty and take the necessary measures which flow from adherence to this instrument. We likewise call upon them to sign and ratify the Comprehensive Nuclear Test-Ban Treaty without delay and without conditions.

12. An international ban on the production of fissile material for nuclear weapons or other nuclear explosive devices (Cut-off) would further underpin the process towards the total elimination of nuclear weapons. As agreed in 1995 by the States Parties to the NPT, negotiations on such a convention should commence immediately.

13. Disarmament measures alone will not bring about a world free from nuclear weapons. Effective international cooperation to prevent the proliferation of these weapons is vital and must be enhanced through, inter alia, the extension of controls over all fissile material and other relevant components of nuclear weapons. The emergence of any new nuclear-weapon state, as well as any non-state entity in a position to produce or otherwise acquire such weapons, seriously jeopardises the process of eliminating nuclear weapons.

14. Other measures must also be taken pending the total elimination of nuclear arsenals. Legally binding instruments should be developed with respect to a joint

no-first-use undertaking between the nuclear-weapon states and as regards non-use or threat of use of nuclear weapons against non-nuclear-weapon states, so called negative security assurances.

15. The conclusion of the Treaties of Tlatelolco, Rarotonga, Bangkok and Pelindaba, establishing nuclear-weapon-free zones as well as the Antarctic Treaty have steadily excluded nuclear weapons from entire regions of the world. The further pursuit, extension and establishment of such zones, especially in regions of tension, such as the Middle East and South Asia, represents a significant contribution to the goal of a nuclear-weapon-free world.

16. These measures all constitute essential elements which can and should be pursued in parallel: by the nuclear-weapon states among themselves; and by the nuclear-weapon states together with the non-nuclear-weapon states, thus providing a road map towards a nuclear-weapon-free world.

17. The maintenance of a world free of nuclear weapons will require the underpinnings of a universal and multilaterally negotiated legally binding instrument or a framework encompassing a mutually reinforcing set of instruments.

18. We, on our part, will spare no efforts to pursue the objectives outlined above. We are jointly resolved to achieve the goal of a world free from nuclear weapons. We firmly hold that the determined and rapid preparation for the post-nuclear era must start now.

CONFERENCE ON DISARMAMENT

CD/1545

31 July 1998

ENGLISH

Original: ENGLISH
and FRENCH

ALGERIA

Proposal under item 1 of the agenda of the Conference on Disarmament

"Cessation of the nuclear arms race and nuclear disarmament"

GE.98-62901

BACKGROUND

1. The algerian delegation considers that nuclear disarmament is an absolute priority for the Conference on Disarmament. A number of proposals have been made on this subject, all of them of undoubted interest. This working paper is designed to add substance to the debate, point to avenues which may be explored, and help in reaching decisions. It sets out a dual proposal on nuclear disarmament and the prohibition of fissile material, with a possible compromise formula.

2. The dual proposal on nuclear disarmament and fissile material draws on principles and rules which are broadly accepted, as well as positions, observations and views set out by delegations in the Conference on Disarmament.

3. Nuclear non-proliferation and disarmament constitute two inseparable and interacting dimensions which must be dealt with hand in hand.

The plan for non-proliferation is based on the NPT and includes other concomitant measures: the banning of nuclear testing, the granting of security assurances and the prohibition of fissile material. The NPT has now been extended indefinitely and possesses a strengthened review mechanism, nuclear testing has been banned under the CTBT and security assurances are being handled within an ad hoc committee established this year in the Conference on Disarmament, as well as being dealt with or examined and considered in other settings (denuclearized zones and NPT).

4. It now remains to pursue two actions:

4.1. **To put the finishing touches to this plan for non-proliferation by accomplishing the last phase in the form of negotiations on fissile material; this is the purpose of proposal B.**

- This proposal has been drafted in the light of the need to initiate negotiations on a clear and unequivocal basis, following a common vision which is free of ambiguity as regards the scope and objectives of a treaty to ban fissile material.
- The logic underlying this proposal lies in a separation of the negotiations on future production and on stockpiles, which will lead to:

*A treaty whose scope is limited to future production (the wording of the mandate contained in the Shannon report);

*A protocol to govern stockpiles arising from production which predates the entry into force of the treaty and the dismantling of nuclear weapons under the START process. The negotiations will determine whether it is possible to opt for a protocol simply annexed to the body of the treaty, or an additional protocol to be opened for signature by

States , with its own preamble, operative part and entry-into-force clauses.

Such negotiations would make it possible to take into account the concerns expressed by the various delegations, to launch negotiations on a clear and unequivocal basis and to guarantee the smooth course of work in the ad hoc committee established for the purpose, by avoiding entanglement between the negotiations on future production and those on stockpiles, which are supposed to provide a mutual feedback.

4.2 To outline the « plan for disarmament » through an in-depth examination of nuclear disarmament; this is the purpose of proposal A.

- This in-depth exercise can be carried out effectively through:

*Negotiation of a convention involving a political commitment on the part of all States to the goal of nuclear disarmament. This legal instrument should, in our view, constitute the cornerstone of the « disarmament regime », in the same way that the NPT constitutes the cornerstone of the non-proliferation regime.

*Identification of practical measures for the elimination of nuclear weapons. At this stage this would involve an identification exercise which would take account of the unilateral initiatives for nuclear arms limitation and bilateral efforts to reduce such weapons (the START process). This identification exercise could draw on numerous ideas and proposals (the proposal for a programme of nuclear disarmament put forward by 28 delegations from the G.21, the work of the Canberra Commission, etc.)

5. The algerian delegation considers that this dual proposal addresses the substance of item 1 on the agenda of the Conference on Disarmament in a balanced manner.

The algerian delegation considers also that for non-proliferation there exists a regime which requires some finishing touches (the purpose of proposal B), and that disarmament must necessarily be provided with a regime which is similar and complementary to the former, which should be initiated in an adequate and appropriate manner (the purpose of proposal A).

Proposal A.

1. The Conference on Disarmament decides to establish an ad hoc committee under item 1 of its agenda with the task, as first stage, of negotiating a multilateral, universal and legally binding convention committing all States to the objective of nuclear disarmament for the complete elimination of nuclear weapons.
2. The ad hoc committee established in this way shall also strive to identify the measures which should be taken to attain this goal and thus safeguard and further strengthen nuclear non-proliferation, while taking due account of the unilateral and bilateral initiatives being pursued in this field and proposals made on this subject.
3. As the measure to be taken immediately has already been identified (a ban on the production of fissile material for nuclear weapons and other nuclear explosive devices), it shall be the subject of a separate decision by the CD.
4. The ad hoc committee shall report to the Conference on Disarmament on the progress of its work before the conclusion of the 1998 session.

Proposal B

1. In pursuance of decision CD/... of..., and taking into account the Shannon report contained in document CD/1299 of 24 march 1995, the Conference on Disarmament decides to establish an ad hoc committee on prohibition of the production of fissile material for nuclear weapons and other nuclear explosive devices.
2. The Conference directs the ad hoc committee to negotiate a non-discriminatory, multilateral, internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices.
3. At the same time, the ad hoc committee shall be entrusted with the task of developing an international regime to govern stockpiles of fissile material for nuclear weapons and other nuclear explosive devices, which could take the form of a protocol annexed to the treaty referred to in paragraph 2 above, or an additional protocol.
4. The ad hoc committee shall report to the Conference on Disarmament on the progress of its work before the conclusion of the 1998 session.

CONFERENCE ON DISARMAMENT

CD/1547

11 August 1998

Original: ENGLISH

DECISION

on the establishment of an ad hoc committee under item 1
of the agenda entitled "Cessation of the nuclear arms
race and nuclear disarmament"

The Conference on Disarmament decides to establish, under item 1 of its agenda entitled "Cessation of the nuclear arms race and nuclear disarmament", an ad hoc committee which shall negotiate, on the basis of the report of the Special Coordinator (CD/1299) and the mandate contained therein, a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices.

The Ad Hoc Committee shall present a report to the Conference on Disarmament on the progress of its work before the conclusion of the 1998 session.

CONFERENCE ON DISARMAMENT

CD/1548
11 August 1998

Original: ENGLISH

STATEMENT

made by the President following the adoption of decision CD/1547 on the establishment of an ad hoc committee under agenda item 1 entitled "Cessation of the nuclear arms race and nuclear disarmament"

In connection with the decision we have just taken, I should like, in my capacity as President of the Conference, to state that the adoption of this decision is without prejudice to any further decisions on the establishment of further subsidiary bodies under agenda item 1 which may result from the provisions of paragraph 1 of decision CD/1501, and that the presidency will continue to pursue intensive consultations and to seek the views of the members of the Conference on appropriate methods and approaches for dealing with agenda item 1, entitled "Cessation of the nuclear arms race and nuclear disarmament", taking into consideration all proposals and views in this respect.

CONFERENCE ON DISARMAMENT

CD/1549

12 August 1998

Original: ENGLISH

STATEMENT BY THE GROUP OF 21

The G.21 emphasises that nuclear disarmament is the highest priority for the Conference on Disarmament (CD). In order to promote the work of the CD, the group underscores its flexibility in accepting the proposal to establish an ad hoc committee under item 1 of the agenda - entitled « Cessation of the nuclear arms race and nuclear disarmament » - to negotiate a convention on the prohibition of the production of fissile material for nuclear weapons and other nuclear explosive devices ». This gesture should be reciprocated by others through their agreement on the establishment of an ad hoc committee on nuclear disarmament, as well as during the course of the negotiations to be conducted in the ad hoc committee which we have just agreed to establish.

The group of 21 stresses the importance of the elimination of the possibility of nuclear war and the threats derived from the continued existence of nuclear weapons, and the use or threat of use of nuclear weapons.

The group expresses its support for the President's declaration that in accordance with paragraph 1 of decision CD/1501, intensive consultations will continue with a view to reaching a decision on an appropriate subsidiary body to deal with nuclear disarmament. The group is of the view that these consultations should lead to the establishment of an ad hoc committee on nuclear disarmament, and recalls the various proposals presented collectively and individually by its members.

The G.21 believes that the proposed treaty dealing with fissile material must constitute a nuclear disarmament measure, and not only a nuclear non-proliferation measure, and be an integral step leading to the total elimination of nuclear weapons. The treaty shall also promote international cooperation for the peaceful uses of nuclear energy.

Mindful that the achievement of nuclear disarmament requires urgent negotiation, the group emphasises the imperative need for all states to commit themselves unequivocally to the objective of the complete elimination of nuclear weapons. An ad hoc committee should be established in the CD to commence negotiations on a phased programme of nuclear disarmament for the complete elimination of nuclear weapons with a specified framework of time, including a nuclear weapons convention.

The G.21 believes firmly that a satisfactory solution to the issue of nuclear disarmament will have a direct bearing on the work of the CD in the future.

CONFERENCE ON DISARMAMENT

CD/1550
12 August 1998

Original: ENGLISH

LETTER DATED 12 AUGUST 1998 FROM THE PERMANENT REPRESENTATIVE OF AUSTRIA ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE TEXT OF A PRESS STATEMENT BY THE AUSTRIAN FOREIGN MINISTER WOLFGANG SCHUSSEL IN HIS CAPACITY AS PRESIDENT OF THE COUNCIL OF THE EUROPEAN UNION ON THE DECISION OF THE CONFERENCE ON DISARMAMENT TO ESTABLISH AN AD HOC COMMITTEE TO NEGOTIATE A TREATY BANNING THE PRODUCTION OF FISSILE MATERIAL USED IN NUCLEAR WEAPONS
ISSUED IN VIENNA ON 11 AUGUST 1998

I have the honor to transmit in the annex the text of a press statement by the Austrian Foreign Minister Wolfgang Schüssel in his capacity as President of the Council of the European Union on the decision of the Conference on Disarmament to establish an ad hoc committee to negotiate a treaty banning the production of fissile material used in nuclear weapons, issued in Vienna on 11 August 1998.

I should be grateful if the text could be circulated as an official document of the Conference on Disarmament.

(Signed)

Harald Kreid
Ambassador
Permanent Representative

GE.98-63068

Press statement by the Austrian Foreign Minister Wolfgang Schüssel

Foreign Minister Schuessel, in his capacity as President of the Council of the European Union, welcomes the decision taken today by the Conference on Disarmament (CD) in Geneva to establish an Ad Hoc Committee and to start negotiations on a treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices (Fissile Material Cut-off Treaty - FMCT).

With the launching of the negotiations on a FMCT, the realisation of the next logical step after the conclusion of the Comprehensive Test Ban Treaty in 1996 on the road towards nuclear non-proliferation and nuclear disarmament is within reach. Since the 1995 NPT Review and Extension Conference when agreement on this objective was achieved, the European Union has steadfastly supported the commencement of such negotiations in the CD. The decision taken by the CD today was based on a proposal which Austria had made earlier this year.

We have frequently reiterated the importance of such a treaty which will cap the fissile material stockpiles available for use in nuclear weapons and strengthen the international nuclear non-proliferation regime by adding new constraints, including verification arrangements on all relevant facilities. It will thus constitute a significant contribution towards the achievement of both nuclear non-proliferation and nuclear disarmament.

In view of the recent nuclear tests in India and Pakistan, the consensus decision to start negotiations comes at a crucial moment.

CONFERENCE ON DISARMAMENT

CD/1551
18 August 1998

Original: ENGLISH

LETTER DATED 14 AUGUST 1998 FROM THE PERMANENT REPRESENTATIVE OF THE PHILIPPINES ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE TEXT OF THE STATEMENT OF THE PHILIPPINE SECRETARY OF FOREIGN AFFAIRS, THE HON. DOMINGO L. SIAZON, ON THE ESTABLISHMENT OF AN AD HOC COMMITTEE TO NEGOTIATE A TREATY BANNING THE PRODUCTION OF FISSILE MATERIAL

I have the honour to transmit the text of the statement of the Philippine Secretary of Foreign Affairs, the Hon. Domingo L. Siazon, on the establishment of an ad hoc committee to negotiate a treaty banning the production of fissile material.

It would be appreciated if the statement could be circulated as an official document of the Conference.

(Signed) Lilia R. Bautista
Ambassador
Permanent Representative

**Press Statement of the Hon. Domingo L. Siazon,
Secretary of Foreign Affairs of the Philippines,
on the Decision to Establish an Ad Hoc Committee
to Negotiate a Treaty Banning Production of Fissile Material
for Nuclear Weapons or other Nuclear Explosive**

The Philippines welcomes the consensus reached in the Conference on Disarmament to establish an Ad Hoc Committee as a critical first step leading to negotiations on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive. Coming shortly after the series of nuclear testing in South Asia, the decision adopted by the Conference on Disarmament provides hope that the cause of non-proliferation and nuclear disarmament can advance as we move towards the new millennium.

The negotiations on the ban on fissile material will be the most important negotiation since the conclusion of the Comprehensive Test Ban Treaty (CTBT). The Philippines sincerely hopes that procedural matters can be agreed upon as soon as possible to immediately begin negotiation. While the Philippines looks forward to early conclusion of a convention on fissile materials, it is under no illusion that negotiations will be short and easy. The decision to create an ad hoc committee required a great amount of political will, particularly from countries whose security interests are closely linked to nuclear issues, before a consensus was reached. We realize that an even greater amount of political will be needed to successfully negotiate and conclude a convention. Nevertheless, given the high degree of flexibility demonstrated by states in adopting the decision on the ad hoc committee, there is reason to be optimistic that the momentum it has generated will carry the negotiations to a successful conclusion.

13 August 1998

CONFERENCE ON DISARMAMENT

CD/1555
1 September 1998

Original: ENGLISH

REPORT OF THE AD HOC COMMITTEE UNDER ITEM 1 OF THE AGENDA ENTITLED "CESSATION OF THE NUCLEAR ARMS RACE AND NUCLEAR DISARMAMENT"

I. INTRODUCTION

1. At its 802nd plenary meeting, on 11 August 1998, the Conference on Disarmament decided "to establish, under item 1 of its agenda entitled "Cessation of the nuclear arms race and nuclear disarmament", an ad hoc committee which shall negotiate, on the basis of the report of the Special Coordinator (CD/1299) and the mandate contained therein, a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices. The Ad Hoc Committee shall present a report to the Conference on Disarmament on the progress of its work before the conclusion of the 1998 session." (CD/1547)

In connection with the above decision, the President of the Conference made the following statement: "In connection with the decision we have just taken, I should like, in my capacity as President of the Conference, to state that the adoption of this decision is without prejudice to any further decisions on the establishment of further subsidiary bodies under agenda item 1 which may result from the provisions of paragraph 1 of decision CD/1501, and that the presidency will continue to pursue intensive consultations and to seek the views of the members of the Conference on appropriate methods and approaches for dealing with agenda item 1, entitled "Cessation of the nuclear arms race and nuclear disarmament", taking into consideration all proposals and views in this respect." (CD/1548)

II. ORGANIZATION OF WORK AND DOCUMENTS

2. At its 804th plenary meeting, on 20 August 1998, the Conference on Disarmament appointed Ambassador Mark Moher of Canada as Chairman of the Ad Hoc Committee for the current session. Mr. Jerzy Zaleski, Political Affairs Officer, United Nations Department for Disarmament Affairs, served as Secretary of the Ad Hoc Committee.

3. The Ad Hoc Committee held 2 meetings from 27 August to 1 September 1998. In addition, the Chairman conducted a number of informal consultations with delegations.

4. The following documents were submitted during the annual session of the Conference on Disarmament and were considered relevant to the work of the Ad Hoc Committee:

- CD/1485, dated 21 January 1998, submitted by the delegation of Canada, entitled "Working paper with regard to an ad hoc committee on a fissile material cut-off treaty".
- CD/1490, dated 28 January 1998, submitted by the delegation of the United States of America, entitled "Statement from the President of the United States upon the Occasion of the Opening Plenary of the 1998 Session of the Conference on Disarmament".
- CD/1492, dated 3 February 1998, submitted by the delegation of Austria, entitled "Draft decision on the reestablishment of an ad hoc committee to negotiate a treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices".
- CD/1516, dated 28 May 1998, submitted by the delegation of Japan, entitled "Seminar Conference on Technical Issues for a Fissile Material Cut-off Treaty, 11 and 12 May 1998, Geneva, Chairman's Summary".
- CD/1542, dated 11 June 1998, entitled "Letter dated 10 June 1998 from the Permanent Representative of Sweden addressed to the Secretary-General of the Conference transmitting the English and Spanish texts of the Joint Declaration relating to Nuclear Disarmament of 9 June 1998 by the Foreign Ministers of Brazil, Egypt, Ireland, Mexico, New Zealand, Slovenia, South Africa and Sweden".
- CD/1545, dated 31 July 1998, submitted by the delegation of Algeria, entitled "Proposal under item 1 of the agenda of the Conference on Disarmament 'Cessation of the nuclear arms race and nuclear disarmament'".
- CD/1547, dated 11 August 1998, entitled "Decision on the establishment of an ad hoc committee under item 1 of the agenda entitled "Cessation of the nuclear arms race and nuclear disarmament".
- CD/1548, dated 11 August 1998, entitled "Statement made by the President following the adoption of decision CD/1547 on the establishment of an ad hoc committee under item 1 of the agenda entitled "Cessation of the nuclear arms race and nuclear disarmament".
- CD/1549, dated 12 August 1998, entitled "Statement by the Group of 21".
- CD/1550, dated 12 August 1998, entitled "Letter dated 12 August 1998 from the Permanent Representative of Austria addressed to the Secretary-General of the Conference transmitting the text of a press statement by the Austrian Foreign Minister Wolfgang Schussel in his capacity as President of the Council of the European Union on the decision of the Conference on Disarmament to establish an ad

hoc committee to negotiate a treaty banning the production of fissile material used in nuclear weapons issued in Vienna on 11 August 1998".

- CD/1551, dated 18 August 1998, entitled "Letter dated 14 August 1998 from the Permanent Representative of the Philippines addressed to the Secretary-General of the Conference on Disarmament transmitting the text of the statement of the Philippine Secretary of Foreign Affairs, the Hon. Domingo L. Siazon, on the establishment of an ad hoc committee to negotiate a treaty banning the production of fissile material".

III. SUBSTANTIVE WORK DURING THE 1998 SESSION

5. During the meetings of the Ad Hoc Committee, delegations had a general exchange of views, as a first step in the substantive negotiations.

IV. CONCLUSIONS AND RECOMMENDATIONS

6. It was agreed to recommend to the Conference on Disarmament to re-establish the Ad Hoc Committee at the beginning of the 1999 session.

CONFERENCE ON DISARMAMENT

CD/1578
18 March 1999

Original: ENGLISH

CANADA

Working Paper

Elements of an Approach To Dealing With Stocks of Fissile Materials for Nuclear Weapons or Other Nuclear Explosive Devices

Canada indicated in its statement of March 18, 1999, concerning the negotiation of a "non-discriminatory, multilateral and internationally verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices" its considered view as to how the issue of fissile material stockpiles should be addressed by those states possessing such stockpiles. This should be separate from but parallel with the negotiation of that treaty. In an effort to outline elements of such an approach, the following information and recommendations are put forward. It is emphasized that this approach is, in Canada's view, an integral part of a comprehensive nuclear disarmament and nuclear non-proliferation programme directed to the elimination of nuclear weapons and of any associated stockpiles of fissile materials for that purpose.

The suggested approach is composed of four categories of measures:

- a) increasing transparency;
- b) declarations of excess fissile material;
- c) placing excess fissile material under verification;
- and,
- d) disposition of excess fissile material.

Each category is briefly expanded upon in the following sections.

A. Increasing Transparency

The collection and release of information about the size of current plutonium and highly enriched uranium (HEU) inventories is necessary in addressing the issue of excess stocks. Aggregate quantities of stocks are needed as a baseline to measure the progress of establishing controls and disposition programmes on these stocks. Accurate accounting of these stocks also serves an important disarmament and nonproliferation objective for each state possessing such stocks by ensuring that fissile materials have not been stolen or diverted. In that context, efforts to establish production histories will increase confidence that the measured inventories are correct.

Both the United States and the UK have released data about their stocks, and have promised to release more. France's nuclear programme is regarded as having as sophisticated a nuclear material accounting system as the United States and the UK, and should, with relative ease, be able to compile and release similar information about its stocks. Little is known about the accounting systems used by China. Whether the Russian Federation has compiled or is now compiling this information is unknown. The impression is that the Russian Federation needs to develop a modern, nation-wide system to account for its fissile materials; it may be several years before one is developed.

Nonetheless, it is important that states in possession of stocks begin the process of collecting data about their stocks and their production histories. The U.S. and British experiences show that over the passage of time, it becomes more difficult to compile this information as facilities close, records are destroyed, and key personnel who understand the inventories retire or pass away.

Recommendation:

- (1) An agreement among the five nuclear-weapon states to create, regularly update and publish information about their fissile stocks should be concluded as an important transparency measure. Negotiating such an agreement also would focus attention by these governments on the need to thoroughly audit their own stocks.*

B. Declarations of Excess Fissile Material

As nuclear arms reductions take effect, or as the nuclear-weapon states decide unilaterally to reduce the size of their nuclear arsenals, the fissile materials contained in these nuclear weapons becomes excess to weapons programmes. Excess stocks may also arise from materials in the nuclear weapons production process as decisions are made to shut down production facilities. By declaring these materials excess, these states would undertake a political commitment to refrain from using these materials in weapons.

The United States, the UK and the Russian Federation have declared about one-third of their stocks to be excess, i.e. the United States has declared approximately 227 tonnes (metric tons) of fissile material (including approximately 176 tonnes of HEU and 50 tonnes of plutonium) to be excess; the UK has declared 4.4 tonnes of plutonium to be excess, but has not declared any HEU to be excess; and the Russian Federation has declared, in principle, that 500 tonnes of HEU and 50 tonnes of plutonium are excess.

Greater quantities of such fissile materials could be declared excess by these states. Both the United States and the Russian Federation retain far more fissile materials in their programmes than needed to support future nuclear weapons arsenals, given reasonable assumptions about the future size of these arsenals. It is estimated that approximately 75 percent of Russian and U.S. inventories are currently contained outside active nuclear weapons. The United States, the UK and the Russian Federation also retain a far larger quantity of HEU than needed to support their naval nuclear propulsion programmes over the long term.

China and France have not declared any of their stocks to be excess.

Recommendation:

- (2) *All five nuclear-weapon states should assess their nuclear weapons requirements and declare appropriate amounts of fissile materials to be excess. They should declare the quantity of fissile materials needed to sustain current and projected nuclear forces and naval programmes. Public commitments that additional materials will be declared excess, based on projections of future need and contingent on arms reductions, also should be made.*

C. Placing Excess Fissile Material under Verification

Verification that excess fissile materials are not returned to nuclear weapons is essential to confidently reducing the size of fissile material stocks. International verification agreements would make legally binding the political commitments by states not to reuse excess materials for weapons.

The United States has placed 12 tonnes of fissile material (10 tonnes of HEU and 2 tonnes of plutonium) under voluntary International Atomic Energy Agency (IAEA) safeguards, and a few tonnes of U.S. HEU have been diluted to low-enriched uranium (LEU) under IAEA monitoring. The UK is placing its excess plutonium under Euratom safeguards and has agreed not to remove these materials from safeguards for weapons purposes. The Russian Federation has not placed any of its excess material under safeguards, although approximately 50 tonnes of Russian HEU has been diluted to LEU under U.S. monitoring. China and France have not placed any of their stocks under international controls.

The United States, the Russian Federation and the IAEA are currently engaged in a "Trilateral Initiative" to develop the technical, legal, and financial mechanisms to place excess, weapons-programme origin fissile materials under IAEA verification. Special systems are required to verify, with a high degree of confidence, that the materials subject to IAEA verification indeed originated from weapons programmes, and that they are not returned to weapons, without revealing classified information about these materials in the process. The three parties are also drafting a model agreement that would commit a nuclear-weapon state not to use excess materials placed under IAEA verification in nuclear weapons. The three parties are expected to complete their work in 2000.

Recommendations:

- (3) *The five nuclear-weapon states should place as much excess fissile material as possible irreversibly under international verification as soon as practicable.*
- (4) *To ensure the broad participation by all of the nuclear-weapon states in the Trilateral Initiative's outcome, UK, China and France should be invited to take part in the initiative. At a minimum, these three nuclear-weapon states should be regularly informed about the Trilateral Initiative's progress, and be allowed to comment on its efforts. In particular, these states should have an opportunity to comment on the draft model verification agreement.*

- (5) *Implementing IAEA verification of excess stocks will place new financial strains on the Agency's safeguards budget. To address this concern, methods to create new funding mechanisms, such as proposed by the IAEA Director General, should be evaluated.*

D. Disposition of Excess Fissile Material

Converting excess HEU and plutonium into forms that are unusable or unattractive for use in nuclear weapons is necessary to ensure that these materials are permanently removed from stocks.

Efforts to dispose of HEU and plutonium are now underway:

HEU Disposition. In 1993, the Russian Federation agreed to dilute 500 tonnes of weapon-grade HEU to LEU and to sell the resulting product to the United States over a 20-year period. While the agreement has periodically been beset by economic and financing concerns, so far it has proceeded relatively smoothly. Through the end of 1998, 50 tonnes of Russian HEU have been blended down and sold to the United States.

The United States has also begun to blend down excess HEU. Thirteen tonnes of HEU were blended down by the United States in 1997-1998. Additional HEU stocks-up to 88 tonnes -- are to be transferred to commercial processors in the United States and blended down for use in reactors by early in the next decade. When completed, the United States will have disposed of more than half of the currently declared excess HEU.

Plutonium Disposition. The United States and the Russian Federation are now engaged in negotiations on an agreement to cooperate on the disposition of plutonium. The preferred method of the Russian Federation is to convert excess plutonium to oxide form, mix it with uranium oxide, and fabricate mixed-oxide (MOX) fuel for use in nuclear reactors. The United States is also considering the "MOX option" for much of its excess plutonium, and would vitrify the rest in high-level waste ("immobilization").

These negotiations, begun in late 1998 are expected to be completed soon. However, whatever the outcome of these negotiations, it is uncertain if there will be sufficient financing to pay for plutonium disposition, particularly in the Russian Federation. Although the United States recently agreed to spend up to \$200 million to support Russian plutonium disposition, other countries will be invited to contribute financially to the effort. Even if sufficient financing becomes available, it will take years to construct the necessary facilities in both countries for large-scale plutonium disposition. Disposition activities themselves will take decades.

Recommendations:

- (6) *Each nuclear-weapon state should commit to the disposition of its excess plutonium and HEU.*
- (7) *Each nuclear-weapon state should commit to the safe storage of excess plutonium and HEU, preferably in forms less usable in nuclear weapons than metal nuclear weapons components.*
- (8) *HEU disposition programmes should be accelerated to blend down excess HEU by the earliest possible date.*

CONFERENCE ON DISARMAMENT

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13 August 1999

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LETTER DATED 11 AUGUST 1999 FROM THE PERMANENT REPRESENTATIVE
OF JAPAN TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE
SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE REPORT OF
THE TOKYO FORUM FOR NUCLEAR NON-PROLIFERATION AND DISARMAMENT

Attached is the text of the Report of the Tokyo Forum for Nuclear Non-Proliferation and Disarmament.

I would be grateful if you would issue this text as an official document of the Conference on Disarmament and distribute it to all member States and non-member participants in the work of the Conference on Disarmament.

(Signed)

Akira Hayashi
Ambassador
Permanent Representative

**FACING NUCLEAR DANGERS:
AN ACTION PLAN FOR THE 21ST CENTURY**

**The Report of the Tokyo Forum
for Nuclear Non-Proliferation and Disarmament**

Tokyo

25 July 1999

**Japan Institute of International Affairs
Hiroshima Peace Institute**

FACING NUCLEAR DANGERS AN ACTION PLAN FOR THE 21ST CENTURY

*The Report of the
Tokyo Forum for Nuclear Non-Proliferation and Disarmament*

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Preface

The Tokyo Forum for Nuclear Non-Proliferation and Disarmament was organised at the initiative of the then Prime Minister of Japan, Mr Ryutaro Hashimoto, in August 1998. The initiative was taken up by the then Foreign Minister and the current Prime Minister of Japan, Mr Keizo Obuchi. It was co-chaired by former Ambassador Mr Nobuo Matsunaga of the Japan Institute for International Affairs and former UN Undersecretary General and former President of the Hiroshima Peace Institute Mr Yasushi Akashi. The Forum met four times: in August 1998, in Tokyo; in December 1998, in Hiroshima; in April 1999, at Pocantico, New York; and in July 1999, in Tokyo.

The following report and its recommendations are the result of discussions in those meetings. The members of the Tokyo Forum subscribe to the general thrust of the report but not every member may agree to every point in the report. They have participated in their personal capacities, thus the views expressed in the report do not necessarily reflect the views of the governments or organisations to which they belong. Special acknowledgement is given to the valuable contributions made by Ambassador Qian Jiadong of China, who attended the first, second and third meetings of the Forum and was succeeded by Mr Hu Xiaodi*, who, in the end, had dissenting views on some significant points in the report. Acknowledgement is also given to the valuable contributions made by Mr Jasjit Singh of India who attended the first and second meetings of the Forum. While the Forum was initiated by the Japanese Government, the views in this report are those of the Forum, an independent panel of experts, and should not be understood as necessarily reflecting policies of the Japanese Government

The Forum received many proposals from concerned non-government organisations and citizens. The Forum welcomed these proposals, and considered them carefully in preparing its report.

The Forum was supported by a Secretariat constituted from the Japan Institute of International Affairs, the Hiroshima Peace Institute and the Japanese Ministry of Foreign Affairs (Arms Control and Scientific Affairs Bureau). The Secretariat notes the contribution to its work made by Mr Rory Medcalf, seconded in a personal capacity from the Australian Department of Foreign Affairs and Trade.

* Mr Hu Xiaodi has disagreement over, *inter alia*, issues of MTCR, missile defences, fissile material moratorium, transparency, Korea, paragraphs 30 and 39 of Part 2 of the report, and the fourth key recommendation.

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PART ONE:

THE NEW NUCLEAR DANGERS

1. A decade after the end of the Cold War, at the threshold of the 21st Century, the fabric of international security is showing signs of unravelling. Relations among major powers are deteriorating. The United Nations is in political and financial crisis. The global regimes to stop the proliferation of nuclear weapons and other weapons of mass destruction (WMD) are under siege. Nuclear tests by India and Pakistan have shown that not all countries share the view that the usefulness of nuclear weapons is declining. Years of relentless effort have not eliminated the clandestine WMD programs of the most determined proliferators. The US-Russia nuclear disarmament process is stalled, with adverse consequences for the global disarmament agenda. The situation in Asia is particularly fluid, portending negative changes for disarmament and non-proliferation in coming years. Political violence is taking an increasingly worrisome turn, with the possible advent of sub-state terrorist groups armed with weapons of mass destruction. And economic crises, sweeping over continents, generate instability and unpredictability well beyond the markets.

2. Relations among major powers, a primary factor in world order, are crucial to the future of nuclear non-proliferation and disarmament. Following a short rapprochement, relations between the United States and Russia have deteriorated. The United States no longer has a matching rival, and is perceived as a sole military superpower. Russia, concerned about its status, has revalued nuclear weapons, especially for "tactical" use. Misunderstanding on both sides is made worse by crises over issues such as enlargement of the North Atlantic Treaty Organization, the United Nations Special Commission on Iraq, missile defences and Kosovo. Russia's growing irritation at US initiatives, which frequently ignore its views, has clear consequences for disarmament: ratification of the Strategic Arms Reduction Treaty II in the Russian Duma is repeatedly held hostage to bilateral disagreements. Relations are also troubled between the United States and China. These two countries not only differ in their approaches to such fundamental issues as human rights, missile defences, Taiwan and non-proliferation but also have potentially conflicting visions of their roles in Asia which could intensify in the next century. Europe, meanwhile, still lacks the sway it could hold in world politics. The European Union is going through further integration and enlargement, and is taking active steps to strengthen the implementation of its common foreign and security policies. At this stage, however, it is still punching below its weight on the world stage. Europe has a limited role even on such matters of vital interest as the former Soviet Union's WMD legacy, especially when compared with the US cooperative threat reduction programs. Finally, the cast of major powers on the world stage is changing, with more states aspiring to play a larger role.

3. Without a strong, effective United Nations, nuclear non-proliferation and disarmament efforts will fall short. But the UN system is adrift, financially compromised, and playing a limited role in international relations, sometimes performing vital services but sometimes bypassed entirely. The UN system reflects power relations and has suffered from deteriorating relations among major powers. This has left the United Nations Organization poorly equipped to face complexities arising from the proliferation of weapons of mass destruction, the growing importance of non-state actors ignoring basic international law, and new forms of violence involving mass civilian casualties. Unable to respond to some of the dramatic changes in the world in the 50 years since its creation, its effectiveness and to some extent its authority have been undermined. The divergent views on a UN standing military force, and on the new permanent membership of the Security Council, for example, illustrate the UN's problems. *The United Nations, however, remains an essential institution for moving international relations towards cooperative security. Its operational capabilities must be strengthened. To deal effectively with international security problems in the next century, Security Council reform, new normative principles, operational arrangements, financial compliance and new sources of financing are urgently needed.*

4. Recent advances in science and technology have made chemical and biological weapons more accessible. Furthermore, the bio-science revolution has opened possibilities for the making of a new generation of biological weapons which are more dangerous and difficult to protect against. Some of this activity is difficult to distinguish from legitimate civilian research, which makes proliferation harder to prevent. In the proliferation of nuclear weapons and other weapons of mass destruction, increasingly complex methods of concealment and sources of supply are used. Delivery systems are also giving rise to increased concern, as missiles with extended ranges and increased launch readiness become more accessible. The uses proposed for nuclear weapons by the new nuclear-armed states are unclear; those of potential proliferators of biological weapons even more so. As a consequence, profound questions must now be raised concerning the new WMD arsenals. Are they intended as weapons of last resort? Are they seen as decisive weapons for use against countries armed with advanced conventional capabilities? Are they for the ultimate protection of authoritarian regimes? Or are they seen as instruments of regional domination?

5. At stages during the Cold War, the common interests of the superpowers to avoid nuclear conflict were strong enough to moderate hostile behaviour and create, through dialogue and confidence-building measures, some level of trust. Nothing of the like exists among the new proliferators and some of their neighbours. The world must now contemplate new and dangerous patterns of behaviour. The risks of cataclysmic war between major powers have subsided, but those of regional aggression with weapons of mass destruction have increased. Warnings have been sounded, including in Kashmir, the Persian Gulf and the Korean Peninsula. Non-proliferation and disarmament treaties have been used as smokescreens for clandestine weapon programs. Concerns over WMD programs in North Korea and Iraq, in two unstable regions, have proved strikingly difficult

to resolve, either through cooperation or pressure. In both cases, 1998 and 1999 have been years of reassessment and latent crisis.

6. The May 1998 tests in India and Pakistan have significantly changed the global non-proliferation and disarmament picture. Their message runs counter to wide expectations and hopes that the end of the Cold War would make nuclear weapons relics of the past. Instead, the tests signal that nuclear weapons could be a growing part of the strategic landscape of the future. They raise doubts about the extent to which nuclear weapons were linked only to the singular historical circumstances of the Cold War. They also pose a fundamental problem for the regime based on the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT) by creating two states with demonstrated nuclear weapon capabilities but no recognised status. Achieving NPT universality under these circumstances is extremely difficult. Many countries that acceded to the NPT assuming there would be only five nuclear-weapon states (NWS) resent India's and Pakistan's tests as a challenge to their own policies of restraint. These tests, as well as complementary missile flight tests, greatly increase nuclear dangers in an area where four major conflicts between India and Pakistan, and one between India and China, have been fought since 1947. A capacity for mutual destruction does not ensure restraint. In the Middle East, where several armed conflicts have taken place since World War II, there is also the genuine possibility that further wars may involve weapons of mass destruction. During the 1973 Arab-Israeli war there were reports that Israel had contemplated using nuclear weapons; and even the United States ordered a nuclear alert. Chemical weapons were used in the Iran-Iraq war of 1980-1988. And the 1991 Gulf War raised fears about the use of chemical and biological weapons.

7. Implementation of the bilateral US-Russia disarmament agenda is stalled, with major repercussions for global disarmament and non-proliferation. The Russian Duma will have difficulty ratifying START II in the near future; START III may remain an unrealised treaty unless new efforts are made to reaffirm the START process. It would be a major setback if the two major nuclear powers abandoned their joint efforts in strategic reductions. It is too early to tell if the US-Russian Joint Statement of 20 June 1999 can revive START.

8. Tactical nuclear arsenals are also of increasing concern. Despite accounting for more than half of the global stockpile of nuclear warheads, they are not covered by any agreement. Both the United States and Russia maintain high alert rates for large numbers of nuclear weapons, based on plans of massive attack which have lost their meaning. Such plans are especially dangerous when Russia's early warning and command and control systems are weakened and its political structure is unstable.

9. The issue of fissile material control has become critical. Large stockpiles have been produced since the 1940s, and now plutonium and highly enriched uranium is being extracted from thousands of dismantled nuclear warheads. Despite international cooperation to strengthen Russia's capacity to control its fissile material, much remains to be accomplished; concerns persist that its fissile material may disseminate beyond its borders. Four nuclear-weapon states (the United States, Russia, France and the United Kingdom) have announced moratoria on producing fissile materials for weapons. It is hoped that China, India, Israel and Pakistan will also declare moratoria and adhere to them.

10. The US-China relationship has been deteriorating and is very unstable, with adverse consequences for disarmament. The United States is concerned about China's possible cooperation with Pakistan's nuclear and missile programs and China's development of its nuclear arsenal. China has already undertaken certain commitments: the unconditional no first use of nuclear weapons, no-use or threat of use of nuclear weapons against non-nuclear-weapon states, and the policy of no deployment of nuclear weapons outside its borders. China, however, has put in place few transparency measures. The implementation of further transparency measures would help dispel regional concerns and would support global nuclear disarmament efforts. For its part, China is concerned over aspects of US nuclear deterrence doctrine and the development of ballistic missile defences. The United States has put in place many transparency measures concerning its doctrines, deployments, fissile materials and technical developments. Further information, however, on reserve stocks would have a positive impact on steps towards nuclear disarmament.

11. Relationships between China and Russia, marked by China's new strength and Russia's present weakness, will be equally important in shaping the emerging international system. Reports about the development of a new missile by Russia, and about changes in Russian operational doctrine that could make nuclear weapons more readily useable, could over time raise concerns in China. On the other hand, China is not constrained by strategic arms reduction treaties while Moscow has agreed to forego land-based multiple warhead missiles and current Russian nuclear forces face block obsolescence. This juxtaposition of factors could cause increased concern in Russia.

12. Terrorism using nuclear, chemical or biological weapons has been possible for some time, but serious policymakers have traditionally seen other threats as more pressing. This perception has been changing since the early 1990s. The probability of WMD terrorism may still be relatively low, but it is growing with the ability of sub-state terrorist groups to master the technical challenges of developing and using these weapons, and their growing access to the very significant monies obtained from the traffic in illicit drugs. National controls on weapons-grade fissile materials were tight during the Cold War; now it is increasingly possible that non-state actors might obtain them. The prospect of WMD terrorism is particularly alarming because it would be hard to prevent and the

perpetrators hard to identify. The effects of WMD terrorism could be so severe that it must be regarded as a serious security challenge for the coming decades. Trends in political violence and a propensity toward inflicting mass casualties appear to be rising in recent years. Chemical weapons have already been used against civilian populations in internal conflicts, setting a dangerous precedent, especially when civilian casualties and displacement are war aims in some ethno-nationalist conflicts.

13. Maintaining and reinforcing the WMD non-proliferation regimes is vital to global peace and security. Despite increased membership, key states remain outside the NPT, the Chemical Weapons Convention (CWC) and the Biological Weapons Convention (BWC). Implementation decisions have weakened verification of the CWC, and the BWC verification protocol remains distant. Compliance challenges generate increasing concern, and there are no accepted multilateral processes for assessing and enforcing compliance, despite an array of non-proliferation norms, treaties and institutions. Political issues also divide the parties, including the pace of disarmament, commitments to peaceful cooperation, and the specific regional challenges of implementing a Middle East zone free of weapons of mass destruction and missiles.

14. Prospective missile defence deployments complicate the picture and are causing much debate. Proliferation may increase the perceived need for missile defences: the dramatic changes in threat assessment caused by the emergence of Iranian, Israeli, North Korean, Indian and Pakistani medium-range missile systems contributed to the new interest in missile defences. Alternatively, defences could, among other things, also increase and diversify the threat of WMD proliferation, as some states, including some of the five nuclear-weapon states, may try to compensate for defensive deployments. The question of missile defences should take into account all these implications, so as to have the net effect of reducing, not increasing, nuclear dangers, and avoiding further destabilisation of the international security system. The 1997 Protocol to the Anti-Ballistic Missile (ABM) Treaty governing advanced missile defences does not fundamentally affect the ABM Treaty or undermine the mutual deterrence model. Prospective US-Russia discussions on the ABM Treaty should also meet these criteria.

15. *A realistic dialogue on the most effective means to address underlying security concerns must replace outdated nuclear doctrines on the one hand and artificial disarmament deadlines on the other.* The international community must find new approaches to reduce nuclear dangers in these troubled times. Non-proliferation norms will need to be strengthened if the regime is to be kept alive in the next century. Not only regional but also global security is at stake. The 1991 Gulf War showed how a regional conflict could have global implications. Nuclear non-proliferation and disarmament are not the preserve of the nuclear-weapon states or powers in troubled regions. The NPT is based on a contract involving all parties. While the nuclear-weapon states have to fulfil their Article I, IV and VI obligations and pursue nuclear disarmament, the non-nuclear-weapon states (NNWS) need to firmly support effective action in the most difficult cases

of non-compliance. Concerted action by both camps is the only way to renew the partnership to reduce nuclear dangers. New approaches in US-Russia bilateral nuclear reductions and steps by China to cap its arsenal and fissile material stocks could assist progress towards multilateral negotiations on nuclear disarmament. At the same time, regional security threats in the Middle East and Northeast Asia need close attention, as do the security problems among India, Pakistan and China. These three areas are potential flashpoints where use of weapons of mass destruction cannot be dismissed.

16. It will be hard to maintain stability and nuclear security under these circumstances. It will require a vision and a roadmap of how these complex issues can be solved. It will also require, at the global and regional level, new initiatives to stop the spread of nuclear weapons and new spheres of strategic cooperation among major powers. The world has witnessed a decade of unexpected challenges and disturbances since the end of the Cold War. As a new century begins, there is a strong risk that the world will become more chaotic and troubled, threatening the security of all, unless work begins now to turn recent setbacks into potential solutions. This calls for understanding the stakes, and putting in place new means of maintaining stability, reducing WMD threats and increasing transparency.

17. Much has therefore changed since the Canberra Commission on the Elimination of Nuclear Weapons issued its important report in 1996. Troubling signs are now evident on many fronts. The report and recommendations of the Tokyo Forum are aimed at clarifying the alarming nature of recent developments and the urgent need for steps to stop the decline in regional and international security. *We call on the international community to meet the challenges posed by proliferation and increasing nuclear dangers.* In the body of its report, the Tokyo Forum will identify how these challenges can be addressed in three mutually-reinforcing ways: mending strategic relations to reduce nuclear dangers, both among major powers and at a regional level; stopping and reversing the proliferation of nuclear weapons; and developing the architecture of, and taking new initiatives for, nuclear disarmament.

PART TWO:

MENDING STRATEGIC RELATIONS TO REDUCE NUCLEAR DANGERS

1. Suspicion and rivalry between existing or potential nuclear-armed states bode ill for nuclear non-proliferation and disarmament. This problem must be addressed both among major powers – the United States, Russia and China – and in those conflict-prone regions where nuclear confrontation is most likely – South Asia, the Middle East and Northeast Asia. Mending relations and reducing mistrust among major powers will significantly improve the conditions for progress on non-proliferation and disarmament in all three regions. At the same time, important steps can and should be taken by states in the regions regardless of the state of major power relations.

MENDING RELATIONS BETWEEN MAJOR POWERS

2. Success in nuclear non-proliferation and disarmament requires cooperation in all bilateral relationships among the United States, Russia and China. The US-Russia and US-China relationships have deteriorated badly in recent years. Unless and until they are repaired, nuclear dangers will increase.

Repairing US-Russia Relations

3. Since the release of the Canberra Commission report in 1996, US-Russian relations have been marked by greater imbalances in economic and military power, greater divisiveness and partisanship in the domestic politics in both countries, and a retreat from cooperation towards unilateralism. As a result, collaborative efforts in non-proliferation and new disarmament initiatives have been sorely lacking. The common wish to avoid unpredictability that marked US-Russian relations in the Cold War – including agreed parameters of arms control, reduction, and ballistic missile defence treaties – is now dangerously lacking.

4. A partnership forged with great effort as the Cold War waned, producing extraordinary strategic arms reduction treaties and cooperation in the Gulf War, is breaking down. The causes include domestic political divisions, deep differences over foreign policy issues, and the absence of the concerted leadership necessary to regain common ground. To understand the current state of the relationship, it is useful to assess what was achieved before recent strains, including events in Yugoslavia in 1999, emerged.

The euphoria of the first years after the end of the Cold War has ended. Some positive trends continue, but difficulties have increased.

5. In the years immediately before and after the end of the Cold War, serious progress was made in furthering arms control and improving strategic stability. Substantial reductions were made in strategic nuclear arsenals and efforts were pursued towards ensuring the inviolability of the Anti-Ballistic Missile (ABM) Treaty. Under START II, United States and Russia promised to reduce their deployed strategic arsenals to 3,000-3,500 warheads each. Agreement was reached to begin talks for further strategic reductions (START III) as soon as Russia ratified START II, so as to reduce strategic arsenals to 2,000-2,500 warheads each.

6. The most significant achievement of US-Russian interaction in this period was far greater predictability in the behaviour of each state. Progress was made in comprehending the new shape of international relations, distinguishing genuine from imagined problems, and developing common understandings of the changed character of threats to their security, globally and regionally. They seemed to share concerns about regional conflicts including ethno-nationalist wars, international terrorism, illegal trade in conventional arms, and global economic crises. This consensus was reflected in the Joint Statement on Common Challenges to Security on the Threshold of the 21st Century, signed by Presidents Yeltsin and Clinton in September 1998. The United States and Russia have repeatedly demonstrated that dialogue and compromise between them have eased international tensions, for example over Iraq and, at some stages, the former Yugoslavia. But this pattern has deteriorated badly. The North Atlantic Treaty Organization's action in Yugoslavia in 1999 has widened the gulf between Washington and Moscow.

7. This deterioration stands in marked contrast to the early 1990s, when the United States and Russia appeared increasingly tolerant of policy differences. During this period, divergent views did not lead to confrontation; some differences based on national interests were perceived as natural, and tolerance of them helped maintain the US-Russian partnership. Now these differences are widening, particularly over unilateral and multilateral responses to international problems. Russia states that multilateral actions, under the UN flag, should take precedence, and considers the United States too prone to unilateral action and military measures, particularly in addressing conflicts. The United States and Western Europe, while wanting successful outcomes from multilateral efforts, have been unwilling to accept Russian vetoes in the UN Security Council that could disallow multilateral action to counter perceived crimes against humanity or violations of WMD treaty commitments.

8. When the US-Russian relationship is troubled, nuclear risk-reduction efforts suffer profoundly. Cooperation between the two powers is needed to dramatically reduce and eliminate their Cold War nuclear arsenals – deployed and non-deployed – in verifiable, reassuring and irreversible ways. Cooperative US-Russian efforts are also needed to dispose safely of Soviet-era nuclear weapons holdings. Considering Russia's difficult economic situation, it is unlikely to dedicate enough financial and other resources to this complex of problems. Outside assistance is crucial to minimise the possibility of nuclear bomb-making materials falling into the hands of states of proliferation concern or non-state or terrorist entities. Russian cooperation is also needed for resolving the most

difficult regional security problems, where proliferation concerns and consequences are greatest.

9. Unless political leaders in the United States and Russia take urgent action to restore constructive relations, there is a grave risk of negative consequences for nuclear non-proliferation and disarmament efforts. At the very least, START II ratification would be delayed further and prospects for additional bilateral strategic arms reduction treaties would become remote. Russia would try harder to maintain its strategic nuclear forces beyond their service life and would place increasing importance on tactical nuclear weapons in its force postures and doctrines. Russia would try to build up its general-purpose military forces. There would be strong pressures in Belarus, and probably in Ukraine, to reassess their non-nuclear status, depending on political developments in these states and in Russia. And in the new geopolitical environment, Russia might widen its military and technological cooperation with countries of proliferation concern to others, but which it might consider strategic partners.

10. There would also be profoundly damaging global repercussions for nuclear non-proliferation and disarmament. *Progress in US and Russian reductions is needed to lead the way for disarmament by all other nuclear-armed states*, but it will be difficult to reaffirm a cooperative US-Russian relationship to reduce nuclear dangers. In addition to NATO action in Yugoslavia, prospective US national missile defences and NATO expansion are particularly contentious issues. The weakness of the Russian economy and the problems of creating a stable and democratic state have understandably generated resentment among the Russian people. The rhetoric of nationalism and strategic competition has re-emerged. Divisions between Moscow and Washington are widening on regional proliferation issues, particularly the control of sensitive exports to Iraq, Iran and India. Work needs to be done to reconcile US and Russian approaches on the urgent need to control the export of materials and technology that might be used for WMD programs.

11. The pace of the START process now lags far behind the rate of increase in new nuclear dangers. Ratification delays have lasted longer than the time spent to negotiate the agreements. Even when ratification is belatedly approved, legislators attach conditions that impose further delays or complications for implementing treaty provisions. The formal process of US-Russian strategic nuclear arms reduction, which played an essential role in reducing Cold War arsenals, remains helpful but is now clearly insufficient to deal with contemporary and future challenges.

12. Difficulties in the arms reduction process reflect larger political differences between Moscow and Washington. It is wrong to place upon arms control the burden of fixing overarching political problems. The reverse is true: the resumption of progress in reducing nuclear dangers requires the repair of major political differences, including those related to regional proliferation and security. Arms control arrangements can, however, help facilitate and reinforce concerted efforts by US and Russian leaders to reforge larger patterns of cooperation.

13. The degree of difficulty involved in reaffirming US-Russian cooperation might lead

some to suggest that such efforts be postponed until new political leaders take their places after national elections in both countries in 2000. But nuclear dangers do not conform to election cycles, and keep growing. *The Tokyo Forum strongly urges political leaders in the United States and Russia to take steps now to mend the bilateral relationship.* Failure to do so will compound trends that threaten regional and global security.

14. The Forum welcomes the US-Russia Joint Statement of 20 June 1999, and the progress made at the Cologne meeting on that day, in which presidents Clinton and Yeltsin agreed to try to facilitate the ratification of the START II accord while discussing changes in the ABM Treaty. The Joint Statement also noted that discussions on START III would begin without prior ratification of START II. But it is too early to tell if the 20 June meeting will lead to a sustained and effective revival of the bilateral arms reduction process. There are many obstacles ahead and, accordingly, pressure must be maintained on the two states to build on the progress made at Cologne.

15. The depths of the estrangement in US-Russian relations have the most serious consequences for initiatives to reduce nuclear dangers, and leaders in both countries need to place a high priority on repairing this relationship. *To assist in this effort, the Tokyo Forum offers ideas on how dialogue on nuclear issues can help improve these bilateral ties, rather than exacerbate them, as has increasingly become the case. These ideas are set out in detail in the section of this report dealing with nuclear disarmament.*

Repairing US-China Relations

16. *To reduce nuclear dangers, a new partnership must also be forged between the United States and China.* High-level visits in recent years have been helpful but have not reconciled differences in this complex relationship. Whatever the differences between the two countries, cooperation between them is needed to help reduce nuclear proliferation concerns. Enhanced dialogue would help promote greater transparency about nuclear weapons and intentions, and could further consolidate the engagement of both countries in the range of nuclear non-proliferation and disarmament instruments, including the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and export controls. It would also begin to address Chinese concerns on missile defences, and so help prevent that issue from complicating regional and global security.

17. China did not play a central role during the Cold War, but is likely to be a more important power in the next century. How Beijing exercises its growing power will have a direct bearing on the US presence in East Asia. On the other hand, the role of the United States in East Asia and the West Pacific will be a crucial determinant of China's security policies. In particular, it will be essential for the United States to show regard for China's security concerns in the way in which it conducts its security relationships in the region. Both policies will affect efforts to reduce nuclear dangers.

18. The possible introduction of theatre missile defence (TMD) systems in East Asia is a major subject of controversy between the United States and China. China argues that TMD systems in East Asia would have destabilising effects. As well, after having been ignored in most analyses of the future of nuclear weapons, China's reported development of two new types of solid-fuel intercontinental ballistic missiles – perhaps with multiple warheads – is becoming a major international concern.

19. Efforts to address perceived strategic and nuclear proliferation problems involving China and the United States need to be cooperative and constructive. The alarmist approaches of some elements of the US media and polity are not helpful in this regard. Perceptions of China's increasing military strength create unease among its neighbours and beyond. In explaining its nuclear weapons policies, and in further clarifying its non-proliferation policies, China like all nuclear-weapon states has an opportunity to reassure the international community.

20. Under the Treaty on the Non-Proliferation of Nuclear Weapons, all nuclear weapons states have an obligation to take concrete steps to reduce, and eventually eliminate, their nuclear weapons. While Russia and the United States have sought to reduce their arsenals since the early 1990s, and France and the United Kingdom have cut their nuclear forces, China has yet to begin similar steps. *The Tokyo Forum therefore calls on the United States, Russia, France and the United Kingdom to continue the ongoing steps to reduce their nuclear arsenals. The Forum further calls on China to join the other nuclear-weapon states in taking concrete steps to reduce numbers of nuclear weapons, through negotiations or otherwise.* In addition, the five nuclear-weapon states could begin a process of confidence-building and transparency in the nuclear-weapons arena. In this connection, all the nuclear-weapon states could confirm that there will be no increase in their nuclear arsenals.

Reinforcing Confidence between Russia and China

21. Good relations between Russia and China are of importance, not only to both these countries, but also to the rest of the world. Relations between the two countries have improved in the past years, and a breakthrough in talks mapped out their common borders in April 1999. Friendly relations will be essential in the coming decades.

22. Although Russia and China are on the threshold of a new era, the nature of their future relationship is difficult to foretell. China's growing strength, Russia's current weakness, and both countries' increased friction with the United States are the main new factors. The asymmetries between the two countries may grow. With the demise of the Soviet Union, Russia retains huge territory, sparsely populated and underdeveloped, east of the Urals in Asia. This has a direct bearing on Sino-Russian relations. Increased military capabilities on either side could adversely affect bilateral relations. Russia and China could approach near-parity in nuclear forces at some point. Nuclear restraint on both sides would be an important confidence-building measure between the two countries.

STOPPING AND REVERSING REGIONAL PROLIFERATION

23. The nuclear tests by India and Pakistan in May 1998 awoke the world to the reality that the spread of nuclear weapons had reached a dangerous new phase. Two regional powers with unresolved antagonisms had made their nuclear ambitions overt. The tests reflected the failure of global non-proliferation norms to prevail over regional security imperatives, and increased fears that regional conflicts could turn into real nuclear wars.

24. South Asia is not the only region where these fears are growing. There is a pressing need for measures to stop and reverse nuclear proliferation in the Middle East and Northeast Asia as well. In all three regions, national rivalries are combining with nuclear weapons ambitions to create new and potentially catastrophic nuclear dangers which carry long-term repercussions. Some recent developments offer opportunities for arresting and reversing regional nuclear proliferation. These must be seized. The positive Brazil-Argentina experience of abandoning nuclear weapons programs shows that regional nuclear ambitions can be prevented through similar regional and bilateral confidence-building and cooperative arrangements to those found in the Brazil-Argentina Agency for the Accounting and Control of Nuclear Materials (ABAAC).

25. The 1995 Review and Extension Conference of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) was supposed to pave the way for further progress in nuclear disarmament and to make the Treaty as universal as possible. Apart from the fact that the nuclear-weapon states were not ready to commit to the elimination of nuclear weapons within a given time frame, most controversies at the conference arose from regional security problems such as those in the Middle East, South Asia and Northeast Asia. These regional security issues have to be taken seriously. They cannot be solved simply by admonishing the conflicting parties or demanding that they restrain from nuclear activities without any consideration of wider security concerns.

26. Nuclear dangers have different characteristics and causes in each of the three regions. What these cases have in common is the potential not only to thwart any further progress in nuclear disarmament, but also to result in a world in which nuclear weapons proliferation might become the norm. The international community must tailor its responses to each situation, as each of these proliferation cases is different.

South Asia

27. Nuclear testing and weapons proliferation in South Asia has been driven by India's ambition to be treated equally to the five nuclear-weapon states, domestic political factors, and security concerns, including perceptions of China. India considers the possession of nuclear weapons an attribute of great power status, and feels squeezed out by the distinction between nuclear-weapon states and non-nuclear-weapon states embedded in the Treaty on the Non-Proliferation of Nuclear Weapons in 1968.

28. For decades, India was an advocate of complete nuclear disarmament. Today, representatives of its political and intellectual elite argue that it was the rejection of this call for nuclear disarmament that brought India to seek nuclear weapons. What lends this contention little credibility, however, is that India's shift to an open nuclear weapons posture came at the very time that the United States and Russia were making deep cuts to their nuclear arsenals. The timing of India's action greatly compounds other nuclear dangers and makes nuclear disarmament harder to achieve.

29. Another motive for India's nuclear program relates to China. Some in India are concerned by Chinese long-range ballistic missiles, and by the short-range missiles it has allegedly stationed in Tibet. Now that India is developing long-range missiles capable of reaching much of China, Chinese perceptions of a threat from India may grow, increasing pressure on Beijing to harden its nuclear posture.

30. This emerging nuclear arms competition in South Asia is peculiarly dangerous because of its complexity, involving Pakistan as well as India and China. Except for its nuclear capability, Pakistan constitutes only a limited military threat to India. The dynamic of the Indian-Pakistan arms race is embedded in the division of the subcontinent in 1947 and the many conflicts and crises since then. Since Pakistan cannot compete with India in conventional military power, it seeks to equalise India's advantage with nuclear weapons. This has not produced a more peaceful situation in Kashmir.

31. As India's nuclear capabilities grow, there is no assurance that China would stand still. The resulting friction would weaken their security and further endanger southern Asia. Political crises between India and Pakistan are recurring phenomena, and have become more heated with overt nuclear weapons capabilities. Many strategists in India and Pakistan believe that making capabilities overt will increase strategic stability. But this is a far from automatic process; both countries have yet to put in place significant risk-reduction and stabilising measures. India and Pakistan have demonstrated their ability to flight test ballistic missiles that can be readily deployed. As a result, the time between the order to fire nuclear-capable missiles and its execution could be extremely short. Geographical factors also could increase instability in a crisis: Pakistan may feel compelled to maintain nuclear weapons at high alert, because it does not have strategic depth. Given the extremely short distances and flight times involved, decisions in a crisis might have to be made in a matter of minutes, raising the likelihood of catastrophic miscalculation. There is also the risk of unauthorised or accidental launch of nuclear-armed missiles.

32. In the absence of stabilising measures another crisis has already erupted in South Asia. Overt nuclear capabilities have not produced stability and security for India and Pakistan. If the repercussions now evident on the subcontinent in the 1999 Kashmir crisis are not stopped, more crises will follow. The decisions by these countries to test nuclear weapons and flight-test nuclear-capable missiles could also have cascading effects. More states might reconsider their non-nuclear status, especially as regional security uncertainties arise elsewhere. The link between nuclear non-proliferation and nuclear arms reductions with the ultimate goal of nuclear disarmament would be weakened.

33. The Tokyo Forum therefore reaffirms the “benchmarks” for India and Pakistan articulated in UN Security Council Resolution 1172 and the G8 Foreign Ministers’ communique of June 1998. *The Forum calls on the international community to continue to urge India and Pakistan to implement all requirements in UN Security Council Resolution 1172, including: adherence to the CTBT without delay or conditions; immediate cessation of nuclear weapons and ballistic missile development programs, including refraining from weaponisation; cessation of production of fissile material for nuclear weapons purposes; and restraint from export of equipment, materials and technology that can contribute to the development of WMD or missiles capable of delivering them. The Tokyo Forum calls on India and Pakistan to maintain moratoria on nuclear testing.*

34. *The Tokyo Forum believes that international efforts to secure India’s and Pakistan’s acceptance of international norms must be sustained. Ultimately the goal is to persuade India and Pakistan to renounce nuclear weapons and to adhere to the NPT as non-nuclear weapon states. The latter could only be achieved in connection with reconciliation on the subcontinent, a continued and revitalised US-Russia process of nuclear arms reductions and the widening of this process at a suitable stage to include China, France and the United Kingdom.*

35. *The Forum calls for India and Pakistan to each announce a national moratorium on the production of fissile material for weapons purposes until the Fissile Material Cut-off Treaty negotiations are concluded, and to contribute constructively to those negotiations. In this context, and taking into account China’s wish to be a stabilising force in international affairs, a declared Chinese moratorium on the production of fissile material for weapons purposes would encourage India and Pakistan to follow.*

36. *The Forum considers that India and Pakistan should acquire no special status under the NPT, let alone legal status as nuclear-weapon states, nor be rewarded with any other additional status as a result of their nuclear testing. As long as their actions continue to damage the global non-proliferation norms that are fundamental to international peace and security, it is difficult to envisage either country taking a permanent seat on the UN Security Council. The link between nuclear capability and the prestige and influence of a great power, including permanent membership of the UN Security Council, needs to be broken. Four of the P5 gained their permanent seats well before acquiring nuclear weapons. The United Kingdom and France owe much of their present-day status simply to the breadth of their engagement in world affairs, and have suffered no loss of status from major unilateral cuts to their nuclear forces. Germany and Japan have achieved their standing through economic development.*

37. *The Tokyo Forum calls on India and Pakistan to take concrete and verifiable steps to reduce nuclear dangers. The Lahore Declaration of February 1999 includes a constructive workplan in this direction, but this plan has been derailed by political turbulence in India and unwise initiatives by Pakistan in divided Kashmir. It is imperative*

that India and Pakistan finalise nuclear risk-reduction measures agreed to in the Lahore Declaration. Improved, reliable communication channels need to be established between both countries. Reassurance measures are needed so that nuclear-capable forces are not placed on alert or moved during crises. Prior notification of missile flight-tests and conventional force exercises in sensitive areas are essential. *The Tokyo Forum strongly supports the process begun at Lahore and rejects any efforts to resolve differences by force. The Tokyo Forum calls on the Permanent Members of the UN Security Council and other nations to support the Lahore Declaration, and to offer to help implement any agreements reached in bilateral negotiations aimed at resolving the Kashmir dispute.* New initiatives on Kashmir are especially needed in the wake of the 1999 conflict.

38. While China's nuclear posture towards South Asia has been restrained, additional steps of reassurance by both India and China would help greatly in reducing mutual threat perceptions. The elimination of Chinese nuclear weapons is imaginable only in connection with the elimination of US and Russian nuclear weapons, an unrealistic proposition for the near term. Once lower US-Russian ceilings are approached, however, China should play its part in the worldwide nuclear arms reduction process. As the strongest regional power, China's standing would be greatly enhanced if it took the lead in creating confidence in its immediate neighbourhood and reducing threat perceptions held, accurately or not, by adjacent states.

39. *The Tokyo Forum calls on China and India to freeze or forgo nuclear deployments of long-range ballistic missiles in combination with a verifiable pledge not to station short-range missiles close to their common border.* Furthermore, both China and India could announce that they consider themselves bound by the substantive provisions of the 1987 US-Soviet Treaty on Intermediate- and Shorter-Range Nuclear Forces (INF), and renounce possession of all land-based ballistic missiles with ranges between 500 and 5500 km. Such a measure would be consistent with disarmament steps by Russia and the United States. It is reasonable to imagine that China would agree to such a proposal if the nuclear arms reduction process between Russia and the United States were to continue with renewed momentum, either by the START process or by parallel, reciprocal and verifiable reductions, as endorsed in this report.

The Middle East

40. The Middle East is a highly unstable and conflict-ridden region. It has suffered several major conflicts since 1945: the Arab-Israeli wars, the Iran-Iraq war of the 1980s, and the 1991 Gulf War. It is a region marked by the mutually-reinforcing combination of shifting power balances, unresolved antagonisms and active programs to develop weapons of mass destruction.

41. The first state to develop nuclear weapons in the Middle East was Israel which, unlike its neighbours, is not a member of the NPT. Israel's nuclear rationale has to be understood against the backdrop of perceptions of its strategic situation. While Israel neither confirms nor denies possessing nuclear weapons, it is widely believed to have a

sophisticated nuclear arsenal ready to be deployed on aircraft and medium-range missiles.

Israel sees itself in the midst of states unreconciled to its existence. Although Israel holds a conventional military edge against its neighbours it perceives itself as heavily outnumbered, in population, economic power and, eventually, in military might. Thus Israel sees nuclear weapons as a tool of existential deterrence, indispensable for its very survival, in the absence of the encompassing peace involving Israel and its neighbouring states that would allow for a reappraisal.

42. From the perspective of Arab states the situation looks very different. While the majority of such states are ready to accept the existence of Israel, they do not accept Israel's position of not joining the NPT, its denial of statehood for the Palestinians, its continued occupation of Arab territories nor its policy of enhancing its missile and conventional capabilities. There are also concerns within the Arab world about Israel's chemical and biological warfare capabilities. Its Arab neighbours are also critical of the continuing technological support given by the United States to assist Israel in developing and deploying anti-missile missile systems (Arrow) and intelligence satellites. Israel's nuclear capabilities are also generating deeply-felt threat perceptions among its Arab and Islamic neighbours, and this continues to erode support for the NPT, as was especially evident during the 1995 Review and Extension Conference.

43. The launch of the peace process and the achievement of agreements may open a path towards peace between Israel and its Arab neighbours, including a solution to the nuclear problem. Only with a successful peace process as envisaged by the Egyptian-Israeli Peace Treaty, the Madrid Conference, the Oslo accords and the Israel-Jordanian Peace Treaty is it imaginable that the nuclear issue will be less salient and Israel's ultimate renunciation of nuclear weapons made possible. Israeli policies from 1996 to 1999 left the peace process in limbo. The revitalisation of this process is now underway. *The Tokyo Forum therefore stresses the crucial importance of an Arab-Israeli peace process for the stability of the region and for the future of nuclear non-proliferation.* A successful peace process would also permit progress in removing nuclear weapons and all other weapons of mass destruction from the Middle East in the medium and long-term period. *Indeed, the processes of peace and WMD disarmament should proceed in parallel.*

44. There are other proliferation risks in the region. Iraq and Iran constitute serious security concerns for Israel, as they do for other states in the region. Iraq has pursued a secret nuclear weapons program, and the US Administration has alleged that Iran is seeking to build nuclear weapons. The latter has recently tested a ballistic missile with a range of 1,500 km, while inspections of Iraq by the United Nations Special Commission (UNSCOM) have been in abeyance and may not be adequately reconstituted. If either or both states were to possess nuclear warheads on medium-range ballistic missiles, in addition to Israel's nuclear arsenal, this would further destabilise the region. Differences in the size and strategic vulnerability of these states would create a fluid and dangerous dynamic, possibly with catastrophic consequences.

45. Imports of ballistic missiles and their technology are posing a special threat to the stability of the Middle East, giving the problem extra-regional dimensions. In the short-term *the Tokyo Forum urgently appeals to all states in the Missile Technology Control Regime (MTCR) as well as the Nuclear Suppliers Group (NSG) export control arrangements – especially Russia – to do their utmost to avoid any relevant transfers, including both technology and expertise, to the Middle East. The Forum also strongly endorses efforts to persuade North Korea, and other states non-members of the MTCR, to refrain from any transfers of sensitive missile technology to the region.*

46. Another source of concern is that would-be nuclear proliferators in the region might be tempted to seek nuclear-weapons material stored insecurely elsewhere, such as in Russia and Kazakhstan. *The international community should make every effort to cooperate with Russia and Kazakhstan to ensure that this material is stored securely.*

47. *The Tokyo Forum calls on the UN Security Council, especially its five permanent members, to do its utmost to establish as soon as possible a long-term WMD control regime for Iraq based on the relevant resolutions of the UN Security Council and on the long-term monitoring plans approved by it in 1991. The Forum calls on Iraq to comply with the relevant UN Security Council resolutions, and strongly urges the council's Permanent Members to give priority to non-proliferation issues in their dealings with all states of the region.*

48. *The Tokyo Forum urges all states in the region to take unilateral steps to create confidence and reassurance. We call on all states in the region to: join the NPT; ratify the Comprehensive Nuclear-Test-Ban Treaty; accept International Atomic Energy Agency safeguards on all nuclear materials under their jurisdiction, including those contained in the recent Additional Protocol; sign and ratify the Chemical Weapons Convention; and take further measures to clarify beyond doubt their compliance with the NPT. We call on Israel to shut down its unsafeguarded nuclear reactor at Dimona or immediately subject it to international safeguards. All states in the region should suspend missile flight tests and restrain missile programs. Negotiations should be initiated towards a regional agreement to limit missile proliferation, that could usefully draw upon the provisions of the 1987 US-Soviet INF Treaty.*

49. The Tokyo Forum believes that the multilateral Arab-Israeli negotiation process would be advanced by the rejuvenation of the Arms Control and Regional Security (ACRS) process. *It strongly recommends serious work to develop a zone free of weapons of mass destruction (WMDFZ) in the Middle East. Such a zone would only be possible in parallel with the successful conclusion of the Arab-Israeli peace process and substantial changes in the policies of Iran and Iraq. We urge both states to join the Arab-Israeli peace process including the ACRS process.*

50. Within this WMDFZ, possession of nuclear, chemical or biological weapons would be prohibited. This zone would need much tighter and more intrusive verification arrangements than the improved IAEA safeguards regime, including challenge

inspections. Monitoring would require external support by international organisations, individual states or combinations of the two. The Permanent Members of the Security Council would need to play special roles within the instrument creating the zone, including providing guarantees to underpin it and assistance in its implementation.

Northeast Asia

51. The most immediate and worrisome WMD and missile proliferation threat in Northeast Asia is posed by North Korea. Success in stopping and reversing these destabilising WMD and missile programs, combined with global non-proliferation efforts, will help prevent the emergence of other possible proliferation pressures in the region. In Northeast Asia, as in other regions of concern, proliferation risks will be minimised to the extent that the security concerns of all actors are allayed. The North Korean proliferation problems are linked with the troubles of that country's ailing totalitarian regime. The state has suffered from the regime and from the international isolation it has embraced. Famine and poverty have become widespread and the economy has come close to breakdown. The bellicose behaviour of the North Korean leadership seems part of an attempt to cling to power as long as possible. How long the regime will survive, how it eventually will relinquish power, and whether it might seek war as a solution, still remain open questions.

52. The North Korean nuclear program raised international concern in the early 1990s when it became known that the country had embarked on a nuclear program based on a reactor type suited to a nuclear weapons program – a reactor that produced a relatively high percentage of weapons-grade plutonium. The US-North Korean Agreed Framework of October 1994 provided for this type to be replaced with light water reactors, and for an end to all dubious activities. Although the implementation of this agreement has been progressing, doubts have persisted over the North Korean leadership's readiness to faithfully pursue the agreement. The May 1999 visit by US representatives to an underground site suspected of being intended for a nuclear weapon program produced no evidence to support such allegations. This was a positive development, but it is too early for a considered judgement.

53. In August 1998 North Korea proved its ability to launch long-range missiles. This was an extraordinary development for a country with generally low levels of technology and industrialisation and a stricken economy. It is suspected that missile technology and foreign experts have played a role in the North Korean program. This program has not only given North Korea dramatically improved offensive capacities, but has helped fuel arms races elsewhere. The Pakistani Ghauri missile and the Iranian Shehab missile appear virtually identical to a North Korean prototype.

54. *The Tokyo Forum calls on the international community to do its utmost to achieve early realisation of the goal of a denuclearised Korean Peninsula. It urges North Korea to stop all nuclear weapon and missile related activities, and to bring about the full implementation of the 1994 US-North Korean Agreed Framework. The financial and technical implications of the Agreed Framework are extremely complicated and need*

continuous support from many states, including Japan, South Korea, the United States and the European Union. This support is likely to dry up if North Korea continues to flight test nuclear-capable missiles and make other threatening gestures. *The Tokyo Forum calls on the international community to press North Korea to sign and ratify the CTBT as soon as possible; to implement its NPT/LAEA fullscope safeguards agreement; and to accept the new Additional Protocol to that agreement.* Strict, verifiable implementation of these safeguards is the only way to resolve the continuing uncertainties over the North Korea nuclear program and prevent a new crisis.

55. *In the context of Northeast Asia, the Tokyo Forum underscores the need for the strict implementation of export controls in accordance with the MTCR guidelines, and calls for more rigorous controls on nuclear weapons technology and materials. The Forum stresses the necessity for the international community to closely cooperate in keeping nuclear weapons materials and missile technology, as well as precursors for other weapons of mass destruction, away from North Korea.*

56. *The Forum also sees an urgent need for measures to prevent North Korea from continuing to be a source of missile or nuclear weapons proliferation to other regions. Given the threat that such proliferation could pose to international peace and security, these measures might range from bilateral or multilateral talks involving the North Korean authorities, through international economic sanctions to more forceful actions under Chapter 7 of the UN Charter. Such sanctions might be applied both to North Korea and states buying its missiles and related items. These measures will not be necessary, however, if North Korea takes meaningful steps to reassure its neighbours and conforms fully to relevant international non-proliferation norms. The Tokyo Forum strongly recommends that all states strive to engage North Korea in a constructive dialogue on these matters.*

PART THREE:

STOPPING AND REVERSING NUCLEAR PROLIFERATION

PROLIFERATION CHALLENGES IN THE 21ST CENTURY

1. To stop and reverse the global spread of nuclear weapons, the international community needs to recognise the magnitude of proliferation dangers and take corrective action based on a comprehensive strategy. The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) provides the basis for concerted action, but neither the nuclear-weapon states (NWS) nor the non-nuclear-weapon states (NNWS) are doing enough to reverse the unraveling of its regime. *The Treaty must be reaffirmed and revitalised.*
2. A comprehensive strategy would also utilise regional and other global non-proliferation instruments and arrangements, including nuclear-weapon-free zones (NWFZ) and effective but fair export controls. Tightened controls on the world's vast quantity of nuclear weapons-grade fissile materials, together with extensive transparency and monitoring, are essential to stop nuclear weapons spreading further. Ballistic missiles compound the dangers of nuclear proliferation, so any comprehensive non-proliferation strategy must also seek to limit their spread.
3. At the turn of the 21st century, the momentum towards a universal and effective global nuclear non-proliferation regime generated by the close of the Cold War is in danger of being lost. The new nuclear proliferation challenges come from many directions. Poorly-secured materials, technology or weapons may leak across borders. States claiming to adhere to the NPT or regional agreements may maintain clandestine programs. Terrorists may acquire nuclear technology and materials. Components for nuclear weapons may become cheaper and simpler to get. The perception of the conventional military superiority of technologically advanced states may lead some other states to see greater value in weapons of mass destruction. And proliferation in one state or region may trigger it in others. What then can be done to address these challenges?

STRENGTHENING THE NPT

4. The NPT is the lynchpin of global nuclear non-proliferation. It rests on a core partnership between nuclear-weapon states and non-nuclear-weapon states and their solemn pact to eschew and eliminate nuclear weapons. This partnership must be reaffirmed if the treaty is to survive and deal effectively with new proliferation threats. The NPT was aimed at preventing nuclear proliferation beyond the five nuclear-weapon states, defined as states which exploded nuclear devices before January 1 1967. As a consequence, to recognise India and Pakistan as nuclear-weapon states after their May 1998 nuclear tests would set a dangerous precedent of legitimising nuclear proliferation. Alternately, to simply ignore

their actions and capabilities might increase the likelihood of arms races and nuclear crises in the region, and leave open the possibility of nuclear-weapon technologies being transferred from that region to aspiring proliferators. Thus NPT parties face crucial questions of how to secure Indian and Pakistani cooperation with global non-proliferation efforts without condoning or rewarding nuclear proliferation.

5. *The way out of this dilemma is not to bow to proliferation but to fulfil the basic bargain of the NPT by strengthening non-proliferation measures and by reducing progressively and eliminating nuclear weapons. An immediate step towards the former is to expedite acceptance and implementation of the International Atomic Energy Agency Additional Protocol to NPT safeguards agreements, making it a new non-proliferation standard. The latter requires reducing the numbers and salience of nuclear weapons, and making weapon inventories and national stocks of fissile material transparent.* The discriminatory basis of the NPT regime need not constitute a moral and practical flaw in the treaty provided that the nuclear-weapon states and the non-nuclear-weapon states keep their parts of the bargain. If they do not, however, then the regime will certainly continue to unravel, and those parties that maintain good faith will be less and less able to strengthen or even preserve it.

6. The package of non-proliferation, disarmament and peaceful nuclear energy provisions in the Treaty has led to tensions – exposed frequently at NPT review conferences – over which of its objectives should take precedence. The 1995 indefinite extension of the Treaty, achieved in the context of decision documents on *Strengthening the Review Process and Principles and Objectives for Nuclear Non-Proliferation and Disarmament*, as well as a *Resolution on the Middle East*, included a revised review process. It authorised a Preparatory Committee (PrepCom) to discuss substantive matters in the period leading up to the Review Conference in 2000. The implementation of this strengthened process has been impeded by the parties' long-standing tensions and a lack of consensus on its modalities. Some states argue that because PrepCom sessions are not meetings of the parties, but subordinate bodies of Review Conferences, they cannot act as functional substitutes for a standing executive body or other permanent organ. The NPT contains no provisions for permanent institutions or executive bodies, other than the now mandatory requirement to hold a conference every five years to review the Treaty's operation. Moreover, the Treaty has no mechanism to authorise action against non-compliance.

7. The Tokyo Forum is convinced that steps must be taken to increase the ability of NPT parties to prevent, and react effectively to, cases of proliferation. *It calls for the creation of a permanent secretariat and consultative commission for the Treaty.* This would be a guardianship organisation, charged with serving the objectives of all Treaty parties in pursuing non-proliferation and disarmament. Consideration of options for such an executive body should begin urgently. *In addition, the Forum stresses the importance of the 2000 NPT Review Conference for the preservation and strengthening of the Treaty*

regime, and the need for all participants to adopt constructive approaches and focus on their common interest in strengthening it.

STRENGTHENING	OTHER	MULTILATERAL	NON-PROLIFERATION
INSTRUMENTS			

8. To further reinforce the effectiveness of the NPT, other multilateral instruments in the non-proliferation regime must be strengthened. These include regional elements, notably nuclear-weapon-free zones, and security assurances for non-nuclear-weapon states.

Strengthening the CWC and BWC

9. The verification arrangements of the Chemical Weapons Convention have been eroded by implementation decisions, making it more difficult to detect non-compliance. In addition, at a time when biological weapons capabilities are growing and new scientific advances suggest increased availability of biological weapons in the future, negotiations on a verification protocol to the Biological Weapons Convention are still problematic. Moreover, the international community has found no successful way to deal with proven cases of material breaches or other non-compliance in the context of the 1925 Geneva protocol, the Chemical Weapons Convention and the Biological Weapons Convention. Unless the international community adopts strengthening verification measures for these accords and effective measures to deal with non-compliance, chemical and biological threats could become a significant concern for international security.

Strengthening Regional Instruments

10. The geographical coverage and non-proliferation significance of nuclear-weapon-free zones have become more salient as nuclear dangers have grown. The key commitment of NWFZ treaties is that states parties will not acquire nuclear weapons nor allow them to be stationed on their territories. They require nuclear-weapon states to make an unconditional commitment, known as a negative security assurance, that they will not threaten or use nuclear weapons against NWFZ states parties. The unconditional negative security assurances and the commitments by NWFZ states parties go well beyond those in the global non-proliferation agreements.

11. These regional compacts are now setting more far-reaching non-proliferation and disarmament goals than the global regimes. Part of their special value is that they demonstrate the commitments of many states – particularly in the developing world – to disarmament and non-proliferation. The regional nuclear-weapon-free zones can build high levels of confidence among various neighbouring states. At the same time, regional nuclear-weapon-free zones are not substitutes for effective global regimes; each complements the other.

12. Treaties to create nuclear-weapon-free zones were signed in Latin America in 1967, the South Pacific in 1985, Southeast Asia in 1995 and Africa in 1996. All ban nuclear weapons within a specified territory, task the International Atomic Energy Agency with verification responsibilities, and establish permanent treaty organs. The 1995 Treaty of Bangkok has a system for dealing with allegations of non-compliance which involves requests for clarification, requests for a fact-finding mission and procedures for remedial action. The 1996 Treaty of Pelindaba contains compliance provisions, mechanisms for the destruction of existing nuclear devices, commitments on conditions for exports to non-nuclear-weapon states, physical protection requirements, and prohibition of attacks on peaceful nuclear installations in the zone.

13. Another agreement aimed at keeping nuclear weapons out of specific territory is the Joint Declaration on the Denuclearisation of the Korean Peninsula signed in 1991 by the Democratic People's Republic of Korea (DPRK) and the Republic of Korea (ROK). This was followed in 1992 by an Agreement on the Formation and Operation of the North-South Joint Nuclear Control Committee. The 1994 Agreed Framework between the United States and the DPRK reiterated the goal of a denuclearised Korean Peninsula.

14. Work is well advanced on creating a nuclear-weapon-free zone in Central Asia, where five states have agreed on a draft treaty and are now discussing it with the five nuclear-weapon states. The creation of such a zone is becoming increasingly important to global non-proliferation goals. Aspirations have also existed for many years to create zones in the Middle East, Central Europe and South Asia. Proposals have been made to formalise links between Southern Hemisphere zones. This would highlight that almost all states in that hemisphere were within such zones and that more than 100 states were potentially in receipt of unconditional negative security assurances from the nuclear-weapon states.

15. *The Tokyo Forum urges all parties concerned to redouble their efforts to achieve the goal of a denuclearised Korean Peninsula as soon as possible. Major efforts also should be made to bring fully into force the Treaties of Bangkok and Pelindaba, and their protocols, as well as establishing their regional institutions. In addition, the Tokyo Forum strongly supports the rapid conclusion and early entry into force of a treaty to create a Central Asian nuclear-weapon-free zone. Efforts should be made to promote the creation of new nuclear-weapon-free zones and to link those that exist.*

Strengthening Security Assurances

16. Assurances that nuclear weapons will not be used against a non-nuclear-weapon state give many such states a strong security incentive to maintain and increase their support for the global non-proliferation regime. The five nuclear-weapon states, however, have not agreed on a common formula to codify their unilateral negative security assurances, without which the assurances cannot be brought together in a multilateral legal form. At contention are the differing conditions which the nuclear-weapon states attach to the implementation of their negative security assurances; whether such assurances should

only be given to NNWS parties of the NPT or be of universal application; and whether they should be negotiated in an NPT forum or the Conference on Disarmament. *The Tokyo Forum calls on the five NWS to actively seek agreement on a common formula for negative security assurances to NNWS parties to the NPT, and explore the possibility of negotiating a legally-binding agreement.*

17. The Forum also notes that positive security assurances – including guarantees of assistance to states threatened or attacked by nuclear weapons – can be a further incentive for non-nuclear-weapon states to support non-proliferation.

18. *In January 1992, the President of the United Nations Security Council declared on behalf of the members of the Security Council that the proliferation of all weapons of mass destruction constituted a threat to the maintenance of international peace and security. The Tokyo Forum urges the international community to seek to reconfirm this statement as a Security Council resolution.* If proliferation were to be defined thus, sanctions against a proliferating state could flow more easily through the Security Council. *The Tokyo Forum also calls on permanent members of the UN Security Council to announce that they would refrain from exercising their vetoes against efforts to assist or defend UN members states which are subject to the use or the threat of use of weapons of mass destruction. The Tokyo Forum considers that all current and prospective permanent members of the UN Security Council should have exemplary non-proliferation credentials.*

TIGHTENING CONTROLS ON FISSILE MATERIAL

19. One of the most pressing nuclear proliferation problems facing the world lies in the sheer amount of stockpiled fissile material for nuclear weapons, and the problems of keeping it secure and disposing of it safely and irreversibly. The problem is most acute in Russia and some other parts of the former Soviet Union. About 3,000 tonnes of plutonium and highly enriched uranium (HEU) exist in the world, of which less than one percent is under safeguards of the International Atomic Energy Agency (IAEA). Two-thirds of the world's plutonium and highly enriched uranium was produced specifically for military purposes, and two-thirds of this – about 1,300 tonnes – is now considered surplus to military requirements. The United States and Russia have the largest stockpiles of fissile materials, with hundreds of tonnes each. France, the United Kingdom and, reportedly, China each have roughly tens of tonnes, and India, Pakistan and Israel hundreds of kilograms each. But the size of national stockpiles is not the only measure of the danger they pose.

Declaring an End to Production

20. France, Russia, the United Kingdom and the United States have formally announced that they are no longer producing fissile material for weapons purposes. China has also indicated unofficially that it has stopped producing fissile material for weapons purposes. *A public statement from China confirming its private assurances would*

greatly aid progress on controlling fissile material. India and Pakistan have active production programs; it is likely that their stocks of weapon-grade material are increasing. It is not clear whether Israel is continuing to produce fissile material for weapons purposes. India, Pakistan and Israel should also declare, as soon as possible and before conclusion of the Fissile Material Cut-off Treaty, national moratoria on the production of fissile material for weapons purposes.

Expediting Negotiation of a Fissile Material Cut-off Treaty

21. A Fissile Material Cut-off Treaty (FMCT) is a precondition for success in nuclear non-proliferation, as well as a building block for nuclear disarmament. It would help to curb nuclear proliferation and facilitate efforts to detect and monitor clandestine production and acquisition. *The Tokyo Forum calls on the Conference on Disarmament (CD) to act on the 1995 Shannon Mandate for the negotiation of a FMCT. The Conference must overcome the political stalemate that delayed the establishment of a negotiating ad hoc committee until August 1998 and has frustrated its re-establishment in 1999. The treaty needs to be concluded as quickly as possible. However, the issue of fissile material stockpiles is important. The Tokyo Forum recommends that the issue of fissile material stocks be discussed in parallel with, but outside, the formal FMCT negotiations in order to speed the process. Verification measures under an FMCT should augment and not undermine the NPT/IAEA safeguards system including its Additional Protocol.*

Increasing Transparency

22. While the non-nuclear-weapon states are legally obliged under the NPT to place their fissile materials under the safeguards system of the International Atomic Energy Agency, there is no treaty to control fissile materials in the nuclear-weapon states or the non-NPT countries. Some of the nuclear-weapon states, however, have taken steps to assist accounting and control. In the nuclear-weapon states and non-NPT states, military inventories of fissile material are subject to national controls but not to any external checks. Nor are the responsible bodies always fully accountable to national legislatures.

23. Countries with nuclear weapon programs have long kept secret the details about their fissile materials, but since the end of the Cold War some have unilaterally accepted partial transparency. The United States has begun a process of publishing its inventories of plutonium and highly enriched uranium. In 1993, it launched the "Openness Initiative" to reveal information on fissile material produced and used for military purposes. Details on plutonium were published in June 1994 and February 1996, with details on highly enriched uranium to follow. In 1998 the United Kingdom announced the size of its military stockpile of fissile material and committed itself to publishing the results of a more wide-ranging audit.

24. *The Tokyo Forum urges all states with unsafeguarded fissile materials – the nuclear-weapon states and relevant non-NPT states – to voluntarily increase the transparency of their fissile material stockpiles. Those that have not already done so should begin a process of internally auditing their stocks. The results from the internal audits should be published*

annually. This transparency measure would have significant confidence-building effects, and could help expedite FMCT negotiations. Transparency measures on fissile material, including any at a regional level, should be linked and coordinated with the International Atomic Energy Agency and structured to ensure full transparency on nuclear material accounting.

Preventing Nuclear Terrorism

25. Poorly-secured fissile material is attractive not just to states seeking nuclear weapons, but also to a new type of potential proliferator: nuclear terrorists. There is now a real possibility that sub-state forces with hostile aims – political, fanatical or criminal – may acquire the materials and technology needed for crude nuclear weapons. An act of nuclear terrorism would be a catastrophe, and no country is safe; indeed, the strongest states might be the most likely targets. Governments may seek to exchange information and enhance their detection and response capabilities, but terrorists will always have the advantage of being difficult to identify and deter. *The Tokyo Forum calls for regional and global cooperative efforts to prevent weapons of mass destruction from falling into the hands of extremist, fanatical or criminal groups. Efforts to fight nuclear terrorism could be backed by new legal norms, including an international treaty on nuclear terrorism, advocated by Russia and now being negotiated in the United Nations. To be useful this instrument must add materially to existing legal means. Any measure that strengthens the international norms and existing legal means is worthy of support.*

Improving Material Protection and Control

26. There is a pressing need to improve international standards for physical protection aimed at preventing theft or clandestine diversion of fissile materials. The materials must be adequately contained, in facilities and in transit. This requires trained and armed personnel with formal policing powers, perimeter fencing and monitoring, special storage facilities, containers and vehicles. *The Convention on the Physical Protection of Nuclear Materials, in force since 1987, must be accepted and fully implemented by all relevant states. Urgent consideration should be given to widening the scope of the convention, now concerned mainly with materials in transit.* The 1994 Convention on Nuclear Safety, for safe carriage by sea of irradiated fuel, plutonium and high-level radioactive waste, and the 1997 Joint Convention on the Safety of Spent Fuel Management and Radioactive Waste, can also help stop the theft or diversion of nuclear materials for use in weapons.

Strengthening Controls and Threat Reduction Programs in Russia

27. Ever since the demise of the Soviet Union there has been great concern over the physical security of the large amount of fissile material on its territory. The material accounting procedures in the USSR were not particularly rigorous, so the precise size of the problem is not known. Its scale is clearly vast. Economic difficulties in Russia are compounding concerns that fissile material, including that from dismantled warheads, may be removed from storage and transferred illicitly. While important initiatives have been undertaken to prevent this, the sheer amount of material necessitates far greater efforts. Very little has been disposed of, either through storage as waste or burning as fuel. Meanwhile, salaries for guards go unpaid while agents of proliferators may be looking for fissile material, small amounts of which have huge importance in an embryonic weapons program. *The Tokyo Forum calls urgently for greater international cooperation to combat nuclear smuggling, with mutually-supporting roles for police forces, intelligence and customs agencies, and the International Atomic Energy Agency.*

28. Greater international cooperation is required for Russia and other CIS members to improve nuclear material protection, control and accounting. Since 1994 many countries, including the United States, Japan and the European Union, have provided financial contributions and expertise to this end. The United States, under the Nunn-Lugar or Cooperative Threat Reduction (CTR) program, has provided about US\$1.8 billion for 18 projects. Other G7 members have contributed considerably smaller amounts. Assistance needs to be maintained and intensified in, for example, destruction of nuclear weapons, provision of reinforced containers, storage facilities and transport for fissile materials, and research on mixed oxide fuel recycling. The International Science and Technology Center needs support to continue funding civilian projects for former Soviet scientists. The international community needs to expand threat-reduction programs in Russia as a matter of urgency. The United States recently announced US\$4.5 billion for the Expanded Threat Reduction Initiative, to help tackle proliferation threats including those arising from the loosening of controls on plutonium due to the Russian financial crisis. *The Tokyo Forum urges the other G7 countries to provide additional resources for threat-reduction programs and calls on other members of the international community to follow the lead of the United States.*

29. The Tokyo Forum is deeply concerned that the pace of establishing control over, and disposing of, highly enriched uranium and plutonium in Russia and other parts of the former Soviet Union is too slow and the risk of leakage too high. *Greater efforts need to be made, and by more states, to ensure the physical control and urgent disposal of plutonium and highly enriched uranium in the former Soviet Union. Disposal programs should be subject to tighter time schedules, with dates for completion. Excess highly enriched uranium should be diluted to low-enriched uranium for its introduction to civil power production as soon as possible. The financial cost of these tasks will be high. Private as well as government sources of funding should be sought, to ensure that the greatest possible resources are deployed to address the problem in the shortest possible time.*

Extending Fissile Material Verification and Safeguards

30. The technical barriers to increasing non-proliferation monitoring and controls over all civil and military nuclear material, including developing a register, are not insurmountable. The civil nuclear industries of the non-nuclear-weapon states have long been subject to international inspections by the International Atomic Energy Agency, and the scope of the latter is being extended. It is reasonable to expect that extensive records

have been kept of the production of fissile material – for military and civilian use – in other states also. International verification is feasible if governments, especially in the nuclear-weapon states, are prepared to declare their stocks.

31. The verification of a Fissile Material Cut-off Treaty would be difficult without the establishment of a reasonable defined data baseline of existing fissile material stocks in the nuclear-weapon states. The negotiations and conclusion of a Fissile Material Cut-off Treaty can be expected to enhance transparency and availability of data. This would be an important step towards the goal of universal application of safeguards.

32. *The Tokyo Forum calls on all NPT parties that have not yet done so to give the International Atomic Energy Agency increased powers to implement safeguards, by bringing into force the Additional Protocol to their existing safeguards agreements.* The Forum also notes that continuing improvements to safeguards will be needed to keep the system as effective as possible in dealing with deliberate violations. Extra resources would of course be needed for expanded safeguards inspection activities, but cost increases could be minimised if political impediments were removed to long-sought changes to the methods and procedures of IAEA safeguard inspections.

33. The International Atomic Energy Agency, the United States and Russia launched a trilateral initiative in 1996 to explore the technical, legal and financial issues in bringing surplus fissile material stocks under IAEA verification. Russia and the United States have announced that they will submit their declared excess materials to verification “as soon as practicable” under their voluntary offer safeguards agreements with the Agency. The United Kingdom has also declared it has “excess” military material that will be placed under Euratom safeguards. *The Tokyo Forum urges expansion and acceleration of these initiatives and encourages other NWS to do the same. All states with nuclear weapons programs should agree to IAEA safeguards over excess military fissile materials, including material removed from warheads dismantled under arms reduction treaties, and its early and irreversible disposal.*

34. *The Tokyo Forum calls on all those nuclear-weapon states that have not already done so to place all civilian stocks of fissile materials under IAEA safeguards pursuant to their voluntary offer agreements. Non-NPT states should place part of their stockpiles under IAEA safeguards at agreed annual rates, and negotiate voluntary offer agreements with the Agency. All states with civil plutonium and highly enriched uranium should make annual declarations on their holdings.*

35. *The Tokyo Forum urges states, whether or not they belong to the NPT, to make unilateral commitments to place under IAEA safeguards facilities previously used to produce fissile materials for nuclear explosive devices, and to decommission and dismantle facilities they have used previously for that sole purpose.*

STRENGTHENING NUCLEAR EXPORT CONTROLS AND IMPROVING THEIR TRANSPARENCY

36. The national export controls coordinated under the Nuclear Suppliers' Group (NSG) and the Missile Technology Control Regime (MTCR) help retard the proliferation of nuclear weapons and their delivery vehicles. But the effectiveness and transparency of these controls can and should be improved.

37. While participants in export control arrangements firmly argue that their controls do not impede legitimate trade, the counter-claims that the regimes are exclusive, discriminatory, and lacking in transparency, persist. Differences between states over export control regimes could be a major obstacle to strengthening restraints on proliferation. Participants in export control arrangements face the challenge of responding constructively to the critics of the regimes, while maintaining the effectiveness of their controls. *The Tokyo Forum calls for greater transparency in nuclear-related export controls within a framework of dialogue and cooperation between members and non-members of the regimes, in the light of the agreement to this end in the Principles and Objectives decision document associated with the 1995 permanent extension of the NPT.*

38. Some existing or potential suppliers of sensitive items are not members of export control regimes. *The Tokyo Forum calls for expansion of the export control regimes to include current non-member suppliers, without jeopardising the effectiveness of export controls.* Some efforts to this end are already underway. The admission of Russia to the NSG and MTCR was a positive step. It is now especially important to encourage China to pursue its declared policy of actively considering joining the MTCR. New members would have to adhere to the strict export control standards of the regimes for their membership to have positive results for non-proliferation.

39. Another way to address the problem of non-member suppliers is to encourage them to adopt export controls as close as possible to the strictness and effectiveness of those required for members of the regimes. This approach can be pursued in parallel with efforts to expand membership. Stronger outreach and transparency efforts by member states, including bilateral consultations with and technical assistance to non-member countries, would greatly help concerned non-members establish effective export control systems.

40. There is an urgent need to strengthen the conditions for the supply of sensitive nuclear materials and technologies. *The Tokyo Forum calls on all supplier countries to stipulate that an IAEA Additional Protocol safeguards agreement between the recipient country and the IAEA is a new condition for the export of nuclear-related items.*

Participants in the NSG, however, would need to be aware that the conclusion of an Additional Protocol agreement by a destination country would not automatically mean that all exports of items on the control lists could then automatically flow freely to that country. It would still be the responsibility of each NSG member state to determine whether a country of destination had dispelled proliferation concerns.

41. *The Tokyo Forum calls on those states participating only in the Zangger Committee to join the Nuclear Suppliers' Group in order to make their nuclear-related export controls more effective. The Forum also calls for strengthening of the MTCR by tightening national export licensing procedures.*

42. *The Tokyo Forum reiterates the need for the strict implementation of MTCR export guidelines, and calls on Russia to implement more rigorous controls on missile and nuclear weapons technology and materials. In this regard, the Forum stresses the necessity for the international community to closely cooperate with Russia in denying nuclear weapons materials and missile technology, as well as precursors for other weapons of mass destruction, to state or non-state proliferators.*

CURBING MISSILE PROLIFERATION

43. A comprehensive response to nuclear proliferation must also address concerns about the spread of ballistic missiles. While there are treaties prohibiting chemical and biological weapons, and treaties to stop the proliferation and testing of nuclear weapons, there is no multilateral treaty specifically regulating missiles. Following flight tests of long-range missiles by India and Pakistan in April 1999, the UN Secretary-General stated that international agreements on norms against the development of ballistic missiles for military purposes would substantially improve prospects for progress on disarmament and arms control treaties.

44. Past US-Soviet/Russian efforts and agreements on nuclear arms control such as the Strategic Arms Limitation Talks, INF and START controlled, reduced and eliminated ballistic missiles. Thus, for the declared nuclear-weapon states, ballistic missiles have been closely associated with the carriage of nuclear weapons. For other states with nuclear weapons programs or suspected nuclear ambitions, efforts to acquire ballistic missiles will automatically raise suspicion of parallel efforts to acquire nuclear or other weapons of mass destruction. The Tokyo Forum believes that development, acquisition, flight-testing, production and deployment of ballistic missiles can constitute a threat to regional peace and security.

45. *The Tokyo Forum urges the international community to seek realistic ways to prevent acquisition and deployment of nuclear-capable ballistic missiles. A special conference of states concerned at transfers of missile technology outside the MTCR should be convened to deal with the growing problem of missile proliferation. One possible approach that merits serious consideration is the negotiation of a global agreement, or regional agreements, that would draw upon the provisions of the 1987 US-Soviet INF Treaty. Multilateralisation of the INF Treaty would have the added specific benefit of*

helping reduce threat perceptions in southern Asia without discriminating against specific countries. Another approach is to work in bilateral or regional frameworks, particularly in the Middle East, South Asia and Northeast Asia. Proper consideration would need to be given to the security concerns of the countries involved. Enhanced security dialogues would help create the conditions under which regional measures against missile proliferation could be envisaged.

PART FOUR

ACHIEVING NUCLEAR DISARMAMENT

1. The use of nuclear weapons has disastrous and long-lasting consequences. No other cities must be put through the agony of recovery from their devastating effects endured by Hiroshima and Nagasaki. The abolition of these weapons of mass destruction is a long-cherished goal of the international community. Since the release of the Canberra Commission report in 1996, prospects for abolition have been weakened by many developments. The international community has reached a crossroads at which it must choose between the assured dangers of proliferation and challenges of disarmament. There can be no standing still.

2. Progress toward nuclear disarmament is inextricably tied to success in non-proliferation efforts. Without movement toward nuclear disarmament, the norm of non-proliferation is weakened. Without success in non-proliferation, the goal of zero nuclear weapons is unlikely to be achieved. The central compact in the NPT between nuclear-weapon states and non-nuclear-weapon states must be strengthened. The alternative is further proliferation and the continued revaluation of nuclear weapons in the 21st century.

3. The nuclear-weapon states have a solemn treaty obligation to succeed in progressively reducing and eliminating their nuclear arsenals. At the same time the non-nuclear-weapon states must also become stronger stakeholders in the NPT. They can demonstrate their strengthened commitment to the Treaty by taking steps to accelerate the entry into force of the Comprehensive Nuclear-Test-Ban Treaty, by moving promptly to conclude the Fissile Material Cut-off Treaty, and by implementing enhanced IAEA safeguards. In this way, *the Tokyo Forum calls on all States Parties to rededicate themselves to the NPT's fundamental bargain.*

4. A core question in the nuclear disarmament debate is whether nuclear deterrence or the abolition of nuclear weapons offers more national, regional, and global security. States possessing nuclear weapons continue to claim that they enhance their national security. But their actions may also have led rivals to acquire weapons of mass destruction, leading to diminished security for both these states and their non-nuclear neighbours. National, regional and global security have not been enhanced by the possession of nuclear weapons.

5. Some advocates of retaining nuclear weapons claim that these weapons enhance security by deterring nuclear attack, the use of chemical and biological weapons, and large-scale conventional aggression. Until they are abolished, the Tokyo Forum believes that the only function of nuclear weapons is to deter the use of other nuclear weapons. This core function is provisional, however, and must be accompanied by efforts to “pursue in good

faith and bring to a conclusion negotiations leading to nuclear disarmament” as unanimously affirmed by the International Court of Justice.

Revitalising US-Russian Nuclear Arms Reductions

6. The Tokyo Forum notes with dismay that since 1993, there have been no formal US-Russian nuclear arms reduction negotiations, and that less formal discussions on these matters have been limited and episodic. *It calls on the United States and Russia to initiate a new round of regular, comprehensive talks on international security, arms control, and disarmament. These discussions should include strategic and all other types of nuclear arms, missile defences, and other steps that should be taken to reduce nuclear dangers, such as those discussed below.*

7. Creative ways must now be found to revitalise bilateral strategic arms reductions. The Strategic Arms Reduction Treaty I, ratified by both countries, contains monitoring arrangements that could be applied to deeper reductions. START II, signed in January 1993 more than six years ago, is still not in force. Formal US-Russian negotiations on a follow-on START III agreement have yet to begin, although the outlines of an ambitious set of negotiating objectives has been sketched, treaty ratification and implementation has become too weighed down by conditions, complications, and political partisanship. Even if the Duma consents to ratify START II, Russian implementation might be conditional on the US Senate's reaffirmation of the Anti-Ballistic Missile Treaty, which is by no means assured.

8. The more time that passes without ratification of START II, the less relevant this treaty becomes. Over the next 10 to 15 years, deployed warheads on Russian strategic nuclear forces are widely estimated to fall, not just below START II levels but perhaps to half of projected START III levels. Russian nuclear forces produced in large numbers in the 1980s face block obsolescence, and Russia does not have the funds to keep this large force in the field. Waiting for ratification and entry-into-force of treaties requiring reductions well short of those caused by aging, is an inappropriate response to increased nuclear dangers.

9. *The United States and Russia might now usefully consider combining START II and START III, and making START III's reductions more ambitious. While awaiting formal ratification of these treaties, the Tokyo Forum urges the leaders of the United States and Russia to begin immediate reductions by dismantling deployed nuclear forces through parallel steps. It proposes that both countries pledge to use this process to reduce down to 1,000 deployed warheads on strategic nuclear delivery vehicles. The formal treaty process can reaffirm such pledges. Treaties that retard much-needed progress in reducing nuclear dangers are part of the problem, not part of the solution. The procedure the Forum proposes would remove existing treaty ratification barriers to deeper cuts.*

Ending Hair-trigger Alert

10. Much of the doctrinal support for nuclear weapons is outdated and needlessly worsens nuclear dangers. Despite the end of the Cold War, it is striking that the targeting doctrines and alert status of US and Russian nuclear forces have changed so little. Both countries keep hundreds if not thousands of nuclear weapons on high states of launch readiness, and maintain massive nuclear attack options against a wide range of targets. These targeting requirements and this alert status defy satisfactory explanation, even under the doctrines of nuclear deterrence and extended deterrence, and are of great concern to the international community.

11. The need for a review of alert status is especially pressing, not only because of the sheer number of weapons involved, but also because of the likelihood that, due to domestic difficulties, command and control procedures in Russia will come under even greater strains in the coming years. Given the interconnectedness of US and Russian alert levels, cooperative approaches to adopting safer nuclear postures are needed. *The Tokyo Forum calls on the United States to renew its offer to help Russia with early warning systems, and calls on Russia to accept this assistance. It also calls on both countries to work closely together to reduce dramatically the alert levels of their nuclear forces.*

12. *Zero nuclear weapons at immediate readiness for use is an essential step towards the goal of their complete elimination.* Some progress to this end has been made in the past decade. The United States has taken all bombers off alert, and the United Kingdom and France each maintain only one ballistic missile-carrying submarine at sea, at launch readiness measured in days. China is believed to maintain its nuclear forces at a somewhat lower level. But much more can be done.

13. The United States and Russia have signed START II which would eliminate land-based missiles with multiple warheads. *The Tokyo Forum calls on the leaders of both countries to consider and implement ways to stand down these forces as soon as possible while awaiting this Treaty's entry into force. As such a stand-down based on START II would fall disproportionately on Russia, the Tokyo Forum calls on the two countries to complement it by reducing alert levels for sea-based forces, a measure that would fall disproportionately on the United States. Verification arrangements for these stand-downs should be discussed and implemented.*

14. *To eliminate the terrifying consequences of accidental nuclear launches caused by Year 2000 (Y2K) computer problems, the Forum calls urgently for the removal of all nuclear weapons from alert for the period in which there are any potential risks from this source to the reliability of command, control and warning systems.*

No First Use

15. Pledges of No First Use of nuclear weapons can be useful if they reduce the salience of such weapons, and do not lower the threshold for the use of other weapons of mass destruction. Negotiating such pledges is complicated by the alliance relationships of

the United States and by Russia's military difficulties, especially as long as the North Atlantic Treaty Organization and Russia keep First Use options in their military doctrines. Moreover, in the past some pledges of No First Use were not credible. Without changes in doctrine, reinforced by greater transparency and verifiability to affirm reduced launch readiness, pledges alone will continue to lack credibility. The North Atlantic Treaty Organization has just put in place a mechanism to review its First Use options, and in-depth discussion and further efforts will be needed to bring to fruition an effective NATO No First Use commitment. The Tokyo Forum commends such efforts.

Other Nuclear Weapons

16. The United Kingdom and France do not maintain stockpiles of non-deployed nuclear weapons, and information on Chinese stockpiles of non-deployed nuclear weapons is not available. They exist in the United States and Russia, however, in large numbers. Washington explains this vast, parallel arsenal as a "hedge" against a resurgent and adversarial Russia; Moscow explains its enormous holdings of tactical nuclear weapons as an insurance policy for conventional force weaknesses and against a resurgent NATO. This maintenance of huge arsenals complementing deployed forces is a relic of the Cold War. The resulting numbers of nuclear weapons defy coherent, rational explanation. Even if US-Russian relations were to plummet to the depths of a new Cold War, how could the two countries expect to use these many thousands of warheads? *The Tokyo Forum calls on the United States and Russia to begin discussions as soon as possible to progressively reduce and eliminate in verifiable ways their mutual "hedge" arsenals of non-deployed weapons.*

17. The long-neglected issue of tactical nuclear weapons has begun to receive more attention. At the May 1999 NPT PrepCom, a number of states spoke out about the compelling need to address tactical nuclear weapons disarmament. This move rightly suggests that tactical nuclear weapons are a matter of increased concern. They have been revalued in Russian military doctrine, as reflected in a number of recent activities, including the decisions taken at the Russian Security Council meeting of April 29 1999 and the Russian military exercise known as West 99. China's declaration in July 1999 on its acquisition of a neutron bomb capability is also noted. *The unilateral and parallel reductions announced by Russia and the United States in October 1991 and confirmed in January 1992 should be implemented in a transparent and irreversible manner. Further information on Chinese tactical nuclear weapons would be welcomed. More generally, verifiable reductions and elimination should now be extended to tactical nuclear weapons as soon as possible.*

18. The terrorism and proliferation risks associated with tactical nuclear weapons are high. They are relatively vulnerable to theft and older models have less stringent precautions against unauthorised use. More than half the current global nuclear arms stockpile may consist of tactical nuclear weapons. The process of reducing these stockpiles has begun with the substantial, but unverified, reductions of US and Russian tactical weapons. France has also reduced its holdings of tactical nuclear weapons, and the United

Kingdom has decided to eliminate them. *The Tokyo Forum believes that urgent steps should be taken to ensure that the reduction and abolition of tactical nuclear weapons can and should proceed in parallel with that of strategic weapons.*

Multilateralising Nuclear Disarmament

19. Phased, irreversible reductions in US and Russian strategic nuclear forces to 1,000 deployed warheads will take a decade, perhaps longer. The elimination of non-deployed nuclear arsenals will lengthen this process. While the United States and Russia should accelerate their bilateral reductions, what responsibilities should fall to other states? *The Tokyo Forum calls on the NNWS parties to the Treaty on the Non-Proliferation of Nuclear Weapons to continue to respect their obligations not to acquire nuclear weapons and to take initiatives to shore up the non-proliferation regime.* The three other nuclear-weapon states recognised by the NPT also have important obligations to “pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament”. *As a first step, the Tokyo Forum calls on China, France and the United Kingdom not to increase their nuclear arsenals while the United States and Russia are reducing theirs. Israel, India and Pakistan are not recognised as nuclear-weapon states under the NPT, but they, too, have important obligations to the international community not to make the phased reduction and elimination of nuclear weapons even harder by building up their nuclear capabilities.*

20. The United Kingdom and France have moved to cut the numbers and reduce the alert status of their nuclear forces. Transparency measures by both countries have provided reassurance that announced reductions to their deployed forces have taken place. According to published sources, these two states have the lowest number of nuclear weapons of the nuclear-weapon states. China is the least transparent of the nuclear-weapon states, and most information on the status of its nuclear forces comes from Western sources. *The Tokyo Forum calls on China, as well as the United States, Russia, the United Kingdom and France, to make transparent their nuclear weapon policies and doctrines and the size of their arsenals.*

21. Many important disarmament studies in recent years have advocated a phased reduction of nuclear arsenals that moves from a bilateral to a multilateral process at a point when 1,000 deployed warheads each remain in the US and Russian arsenals. Just as it will take a great deal of work and resources to build up to the nuclear arsenals, so it will take similar efforts, and in particular a change in approach to the role of nuclear weapons, to achieve their final elimination. A high level of political cooperation among the five recognised nuclear-weapon states will clearly be essential for deep nuclear arms reductions of all kinds. One way to proceed could be for the five to negotiate a treaty based on the principle of simultaneously halving, or otherwise proportionately reducing, their numbers of weapons in each step. This principle would be fair in that the process would not fundamentally alter the relative capability of each party, while all five would retain a residual arsenal until the last simultaneous step to zero. Another way would be to agree on a minimum number of warheads below which a nuclear force would be regarded as technically non-viable, and reduce down to this level before all states moved to zero. A process of verifiable, phased reductions by all nuclear-armed states to one step short of zero

is a goal on which advocates of abolition and deterrence might find common ground and from which all states would reap shared security gains.

Revitalising Disarmament Efforts

22. *The Tokyo Forum calls on all states that have not yet done so to sign and ratify the Comprehensive Nuclear-Test-Ban Treaty as a matter of urgency. States whose ratifications are needed for its entry into force, such as the United States, Russia, China, India, Pakistan, Israel, and North Korea, have a special obligation to do so quickly. The moratorium on nuclear testing cannot be presumed to hold until entry into force is secured. New testing by one state could lead to cascading tests by other states, greatly increasing nuclear dangers. All states must respect a moratorium on nuclear testing. Pending entry into force of the treaty, the Tokyo Forum calls on all states to fully fund and implement its monitoring arrangements.*

23. The Tokyo Forum notes concerns over whether subcritical experiments undermine the objectives and purposes of the CTBT. *Means should be sought to alleviate these concerns.* One possible interim measure might be the introduction of practical monitoring and transparency mechanisms to confirm whether subcritical experiments are consistent with the treaty's objectives and purposes. This might be achieved through mutual monitoring among states conducting such tests.

24. A Fissile Material Cut-off Treaty has been on the nuclear negotiating agenda since the 1950s. Some have questioned the utility of this treaty, believing it to be insufficient for disarmament and immaterial for non-proliferation. The Tokyo Forum does not share this scepticism. Progress in nuclear negotiations has always been achieved in a step-by-step process, and the FMCT is an essential step in dealing with the dangers posed by fissile materials, as well as one of the basic building blocks for a fissile-material led disarmament process. Other, follow-up steps will also be needed to facilitate the progressive reduction and elimination of fissile material for weapons purposes. *Therefore, the Tokyo Forum strongly urges the prompt conclusion of the Fissile Material Cut-off Treaty, as mandated by the 1995 NPT Review and Extension Conference.*

25. There could also be roles for the international community in the development of transparency measures for nuclear arsenals and fissile material removed from warheads. One measure that has been proposed in this context is a verifiable nuclear arms register. An experts group might be mandated to decide what should be contained in the register, such as the number and types of nuclear weapons, whether on delivery vehicles or in inventories. Tactical nuclear weapons and warheads held in reserve might also be included. The register would establish a baseline against which further reductions could be counted. As with the UN Conventional Arms Register, the contributing states might usefully declare annual changes. *The Tokyo Forum calls on the UN General Assembly to empower the Secretary-General to undertake a feasibility study of such a measure.*

26. *The Tokyo Forum also believes it is essential to develop a verifiable register of all nuclear material produced for both civil and military purposes. We urge that all weapons grade plutonium and uranium from dismantled nuclear warheads be placed under IAEA safeguards.* Effective long-term monitoring of fissile materials is feasible only if states possessing nuclear weapon capabilities are prepared to declare their stocks. Effective controls also require that the International Atomic Energy Agency be empowered to carry out thorough inspections to detect systematic and clandestine violations.

27. With the deterioration of US-Russia and US-China relations, new strains in the NPT, and the ineffectiveness of the Conference on Disarmament since the conclusion of the CTBT, it is essential for all states to work harder to revitalise non-proliferation and disarmament efforts. The Tokyo Forum notes with appreciation recent efforts by the New Agenda Coalition to provide new impetus to multilateral fora that are mired in competing theologies of nuclear deterrence and time-bound frameworks for nuclear disarmament. The Tokyo Forum also notes with appreciation the efforts of non-governmental organisations to promote non-proliferation and disarmament. Creative coalitions between "middle powers" and non-governmental organisations might help provide leadership that is currently lacking elsewhere.

28. Non-proliferation and disarmament efforts could benefit greatly from revitalised multilateral bodies, notably the Conference on Disarmament (CD). *The Conference on Disarmament should suspend its operations unless it can revise its procedures, update its work program, and carry out purposeful work.* It adheres to an agenda that has long been outdated but cannot be changed for lack of a consensus to do so. The consensus rule, even on minor procedural matters, is now causing perpetual deadlock. *Consensus among CD members should not be necessary to begin or, indeed, conclude a multilateral convention.* If a country does not like a treaty, it does not have to sign it. *The structure of the CD's groupings of states, based on outdated Cold War alignments, also needs to be changed to better reflect the contemporary world.*

29. The Tokyo Forum notes the importance some have placed on the immediate negotiation of a convention pledging the elimination of nuclear weapons. The utility of such a convention would depend whether the pledges it contained to carry out nuclear disarmament would accelerate movement in this direction. The NPT contains a pledge of nuclear disarmament, but progress to fulfil it has been uneven and, in recent years, unsatisfactory. At a time of increasing nuclear dangers, the Tokyo Forum believes that actions are far more important than words and pledges. Thus the Forum would place primary emphasis at this time on concrete steps to progressively reduce and eliminate nuclear dangers.

Missile Defences

30. Prospective developments of missile defences have important implications for nuclear non-proliferation and disarmament. The prospect of missile defences in the United States is complicating a number of international relationships and arms control efforts.

China and Russia have reacted negatively to prospective missile defences. The United Kingdom and France view with concern defences that devalue their nuclear deterrent forces. Indeed, while proliferation may increase the perceived need for missile defences, and the absence of defences may also lend impetus to proliferation, missile defences could further increase the risk of proliferation.

31. The Tokyo Forum believes that any future missile defences should be sensitive to these complications. At the same time, no country with the capacity to use weapons of mass destruction can be given a veto over another state's inherent right of self-defence. Moreover, states that have contributed to missile proliferation have diminished standing to argue against missile defences. There may be times when missile defences can play useful roles in countering coercion and strengthening alliance cohesion. At the same time, the development and possible deployment of missile defences are best pursued in concert with strategies to progressively reduce the salience of nuclear weapons.

32. The Tokyo Forum is fully aware that unilateral measures cannot reduce the full range of nuclear dangers. A unilateral approach to missile defences in the United States could convey a "Fortress America" approach, weakening alliance ties. *Missile defences should not be seen as an alternative to the norm of nuclear non-proliferation and disarmament. Therefore, cooperative threat reduction efforts should always be pursued vigorously.* Successful cooperative threat reduction efforts can progressively reduce the impetus to develop and deploy offensive missiles and missile defences of all kinds. Tighter export controls and restraint in missile flight testing and missile deployments could diminish the perceived need for national missile defences.

33. The dismantling of the North Korean missile programs and cessation of its missile exports would have salutary effects. Furthermore, insofar as prospective missile defences are intended to address accidental or unauthorised launches, reduced alert rates and increased assurance over the command and control of Russian nuclear forces are not only important in their own right, but would also decrease the perceived need for national missile defences in the United States.

34. If cooperative threat reduction efforts do not succeed, and if weapons of mass destruction carried by ballistic missiles continue to threaten states, missile defences can remain an option. *The deployment of missile defences, if it occurs in these circumstances, should proceed in a highly cautious fashion, along with other initiatives to reduce nuclear dangers.* Nations would be wise to leave open the possibility that defensive deployments could be scaled back, or even eliminated, if the sources of concern were reduced or removed.

Verification

35. An effective nuclear arms reduction process will require cradle-to-grave monitoring and transparency for all nuclear weapons. While the United States and Russia have made significant progress in reducing nuclear arsenals, they have hardly started down the necessary path of transparency needed for irreversible reductions. *The Tokyo Forum calls*

on all states possessing nuclear weapon capabilities to be more open to monitoring arrangements, transparency and confidence-building measures. States will not agree to deep reductions in their nuclear forces if they deem their security at risk from other states' undetected violations of nuclear arms constraints. This would be even more true in the final phase of an arrangement for the elimination of nuclear weapons.

36. The highly secret nature of many aspects of nuclear weapons programs makes it very difficult to verify declarations of the size and destruction of arsenals. An effective verification system must take into account this secrecy as well as the uncertainties about total amounts of nuclear materials produced for weapons purposes. Taken together, security concerns, secrecy, and uncertainties mean that the precision of verification of nuclear reductions and disarmament is a matter of the utmost seriousness.

37. A verification system with a single or narrow focus is not enough. A comprehensive verification system is required to provide early warning of breakouts or to detect cheating. The most effective verification system would be one that: combined a variety of techniques; coordinated in a synergistic way the contributions of international institutions, national technical means, and transparency and confidence-building measures; and extended to warheads, delivery systems and fissile materials.

38. While the development of detection and surveillance techniques is improving monitoring systems, political factors threaten to weaken stringent verification, as is now evident in relation to the United Nations Special Commission on Iraq or the Organization of the Prohibition of Chemical Weapons (OPCW). Some implementation decisions by the United States and other OPCW states parties have weakened the implementation provisions of the Chemical Weapons Convention, and this is a matter of concern for future global disarmament agreements. *Strengthened verification of the Chemical Weapons Convention, and of the Biological Weapons Convention, is essential for global efforts to eliminate all weapons of mass destruction. To detect cheating, and so permit the progressive reduction and elimination of nuclear dangers, monitoring assets must be harnessed in tandem with political will.* Both must be applied in a coherent way, involving coordination between governments and international institutions.

39. Bilateral nuclear arms reduction or limitation treaties between the United States and Russia, and their verification, hold valuable lessons for future verification of nuclear disarmament. They have shown that credible verification arrangements covering large numbers of deployed nuclear weapons are feasible, but require considerable political and technical efforts and resources. These arrangements, however, have focused on delivery systems rather than nuclear warheads.

40. The verification and monitoring arrangements for deployed nuclear weapons must be extended to controls on nuclear warheads. Nuclear weapons are discrete items of the highest military and political sensitivity, and it would seem natural to expect governments to keep a close account of their warhead inventories. There should thus be no technical obstacles to governments declaring the location and status of all their nuclear warheads. Nor should there be any insurmountable technical barrier to verifying such declarations.

The only fundamental problems are political.

41. Provision for inspections is vital to the verification of any arms control or disarmament agreement. Compliance with a disarmament treaty may stem from the political will that motivated its signing. But trust alone is not enough. Any major disarmament agreement requires solid and credible verification arrangements. The US-Russian nuclear weapons treaties have been verified in a system of bilateral arrangements making heavy use of on-site inspections. Inspection provisions are crucial to the credibility of the CWC, and are of central concern in negotiations to strengthen the BWC with a verification protocol. Governments must learn to tolerate inspections, including surprise or short-notice inspections, for multilateral disarmament to have a future.

42. The continued improvement of detection and surveillance techniques make it possible to raise the quality and capabilities of verification and monitoring systems to levels unimaginable in the past. With modern technology, such possible signs of a weapons program as suspicious construction projects, bank transactions, import and export patterns, transport and production are more transparent than ever. Air, soil and water sampling has been refined and can yield important information. Satellite photography – government and commercial – is making it harder to hide nuclear weapons programs. Computer based data-handling can improve the analysis of declarations and other data obtained in the verification process. All these techniques should be employed to verify nuclear disarmament.

43. National technical means are indispensable supporting tools for verification of nuclear reductions and disarmament. The nature of national technical means is such, however, that their usefulness can be limited, especially in a multilateral context. *To maximise the chances of detecting cheating, monitoring assets must be applied in a way that coordinates the efforts of governments and multilateral institutions. A synergistic approach is needed involving: the work of international institutions, such as the International Atomic Energy Agency and Comprehensive Test-Ban-Treaty Organization; national technical means; and transparency and confidence-building measures by states. The relevant international institutions should be shaped to increase the scope for a synergistic approach to verification.*

44. If non-compliance with nuclear arms treaties is to be deterred, states must know not only that cheaters will be caught but that, when this happens, they will face serious consequences. The international community must be united and unequivocal in its intended response to would-be violators based on a broad consensus as to means and ends, including recourse to Chapter VII of the UN Charter. A strengthened and revitalized United Nations with a reformed and authoritative Security Council is essential to building and maintaining the support of the international community for the effective enforcement of compliance. *The Tokyo Forum calls on all states seeking to promote nuclear non-proliferation and disarmament to actively support the development of such arrangements.*

PART FIVE:

KEY RECOMMENDATIONS

A decade after the end of the Cold War, at the threshold of the 21st Century, the fabric of international security is unravelling and nuclear dangers are growing at a disturbing rate. Relations among major powers are deteriorating. The United Nations is in political and financial crisis. The global regimes to stop the proliferation of nuclear weapons and other weapons of mass destruction are under siege. Acts of terror are taking an increasingly worrisome turn, with the possible advent of sub-state groups armed with weapons of mass destruction. Nuclear tests by India and Pakistan have shown that not all countries share the view that the usefulness of nuclear weapons is declining. Years of relentless effort have not eliminated the clandestine weapons of mass destruction programs of the most determined proliferators. The US-Russia nuclear disarmament process is stalled, with adverse consequences for the global disarmament agenda. The situation in Asia is particularly fluid, portending negative changes for disarmament and non-proliferation in coming years.

Unless concerted action is taken, and taken soon, to reverse these dangerous trends, non-proliferation and disarmament treaties could become hollow instruments. A renewed sense of commitment to both non-proliferation and disarmament is urgently needed. We, the members of the Tokyo Forum, have released this report to draw attention to growing dangers and to propose remedial actions, both immediate and for the longer term.

The Forum commends the initiative of the Japanese Government in calling it into being and sustaining its work. We express the hope and expectation that the Japanese Government will continue to play a positive role in nuclear non-proliferation and disarmament.

1. Stop and reverse the unravelling of the Nuclear Non-Proliferation Treaty regime by reaffirming the treaty's central bargain. The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) demands both disarmament and non-proliferation. The nuclear-weapon states must demonstrate tangible progress in nuclear disarmament, while the non-nuclear-weapon states must rally behind the Treaty and take stronger steps of their own, such as adopting improved International Atomic Energy Agency safeguards. To support the NPT's core bargain, a permanent secretariat and consultative commission should be created to deal with questions of compliance and to consider strengthening measures for the Treaty.
2. Eliminate nuclear weapons through phased reductions. The world faces a choice between the assured dangers of proliferation or the challenges of disarmament. The better choice is the progressive reduction and complete elimination of nuclear weapons. No other cities must be put through the devastation wrought by nuclear weapons and the agony of recovering from their effects, endured by Hiroshima and Nagasaki. Nuclear weapon states must reaffirm the goal of elimination and take sustained, concrete steps towards this end.

3. Bring the nuclear test ban into force. The Comprehensive Nuclear-Test-Ban Treaty must be ratified urgently by those key states still holding out – the United States, Russia, China, India, Pakistan North Korea and Israel. All states must respect a moratorium on nuclear testing and pay their fair share of the treaty's verification costs.
4. Revitalise START and expand the scope of nuclear reductions. The Tokyo Forum calls on the United States and Russia to initiate new comprehensive talks on nuclear arms reduction and security issues, to combine the Strategic Arms Reduction Treaties II and III processes, and to further extend reductions to 1,000 deployed strategic warheads. If these treaties remain stalled, we call on both countries to pursue parallel and verifiable reductions to that level. Verifiable reductions and elimination should be extended to non-deployed and non-strategic nuclear weapons. In addition, the Tokyo Forum calls on China to join the United Kingdom and France in reducing and, in the first instance, not increasing nuclear weapon inventories.
5. Adopt nuclear transparency measures. Irreversible reductions in nuclear forces require great transparency. The Tokyo Forum welcomes the transparency measures undertaken so far by the nuclear-weapon states and calls on them to take steps to increase transparency further. Recent transparency measures by the United Kingdom and France have shed considerable light on their nuclear weapons numbers and stocks. These could be further developed. The United States has put in place many transparency measures concerning its doctrines, deployments and technical developments. More information on reserve stocks would have a positive impact on steps towards nuclear disarmament. Russia has declared some aspects of its nuclear weapons program. Russia could increase the degree of transparency concerning doctrine, numbers of tactical nuclear weapons and stocks of fissile material. China has put in place few transparency measures. The implementation of further transparency measures on the numbers and types of nuclear weapons and on the amounts of fissile material should be encouraged in view of the favorable regional and global impact.
6. Zero nuclear weapons on hair-trigger alert. The Tokyo Forum calls for all states with nuclear weapons to endorse and implement the goal of zero nuclear weapons on hair-trigger alert. To this end, we call on the United States and Russia to immediately stand down nuclear forces slated for reduction in START II. To eliminate the risk of the millennium computer bug leading to an accidental launch, all nuclear weapons in all states should be removed from alert for the period of concern.
7. Control fissile material, especially in Russia. We call on the United States to continue and to increase cooperative threat-reduction efforts in the former Soviet Union. The world community, especially the G8 states and the European Union, must substantially expand cooperative threat-reduction efforts. We call for the prompt conclusion of a Fissile Material Cut-off Treaty. We further call on China, India, Pakistan and Israel to declare moratoria on producing fissile material for nuclear weapons. Nuclear-weapon states should put all excess military stocks of fissile materials and civil fissile materials under

International Atomic Energy Agency safeguards.

8. Terrorism and weapons of mass destruction. The Tokyo Forum calls for regional and global cooperative efforts to prevent weapons of mass destruction from falling into the hands of extremist, fanatical or criminal groups.

9. Strengthen measures against missile proliferation. The guidelines of the Missile Technology Control regime need to be strengthened. We call on all states, particularly North Korea, to respect these guidelines, and for expanded participation in the MTCR. The international community should explore realistic ways to control and reverse missile proliferation, including global or regional agreements drawing upon the provisions of the 1987 US-Soviet Treaty on Intermediate and Shorter-Range Nuclear Forces. A special conference of concerned states should be convened to deal with the growing problem of missile proliferation.

10. Exercise caution on missile defence deployments. The Tokyo Forum recognises the uncertainties and complications missile defence deployments could produce. Recognising the security concerns posed by ballistic missiles, we call on all states contemplating the deployment of advanced missile defences to proceed with caution, in concert with other initiatives to reduce the salience of nuclear weapons.

11. Stop and reverse proliferation in South Asia. In the near term, the Tokyo Forum calls on India and Pakistan to: maintain moratoria on nuclear testing; sign and ratify the Comprehensive Nuclear-Test-Ban Treaty; support prompt negotiation of a Fissile Material Cut-off Treaty; adopt and properly implement nuclear risk-reduction measures; suspend missile flight tests; confirm pledges to restrain nuclear and missile-related exports; cease provocative actions; and take steps to resolve the Kashmir dispute. In the long term, we urge India and Pakistan to accede to the Treaty on the Non-Proliferation of Nuclear Weapons as non-nuclear-weapon states.

12. Eliminate weapons of mass destruction in the Middle East. The Tokyo Forum recognises the linkage between the core objectives of a Middle East that is peaceful and one free of weapons of mass destruction (WMD). We call for: a revitalised Arab-Israeli peace process; resumption of an effective WMD control regime for Iraq under UN Security Council auspices; restraint on missile and flight test programs; effective and verifiable implementation of the Chemical Weapons Convention and Biological Weapons Convention by all states in the region; implementation of strengthened International Atomic Energy Agency safeguards; and Israel's accession to the Treaty on the Non-Proliferation of Nuclear Weapons as a non-nuclear weapon state.

13. Eliminate nuclear and missile dangers on the Korean Peninsula. The Tokyo Forum urges all parties to redouble their efforts to achieve the goal of a denuclearised Korean Peninsula as soon as possible. We call for coordinated global efforts to maintain North Korea's freeze on its graphite-moderated nuclear reactors and related facilities. All nuclear weapon and missile-related activities in North Korea must cease, including production and

sale of WMD-capable missile technology. We call for the full and effective implementation of the 1994 Agreed Framework, North Korea's full compliance with an International Atomic Energy Agency safeguards agreement, and its adherence to the agency's strengthened safeguards system.

14. No vetoes in support of proliferation. The Tokyo Forum calls on the UN Security Council to pass a resolution declaring that the proliferation of weapons of mass destruction constitutes a threat to international peace and security. Permanent members of the Security Council have a special responsibility to prevent proliferation. We call on them to refrain from exercising their vetoes against efforts to assist or defend UN member states that have become victim to the use or the threat of use of weapons of mass destruction. All current and prospective permanent members of the UN Security Council should have exemplary non-proliferation credentials.

15. Revitalise the Conference on Disarmament. The Tokyo Forum calls on the Conference on Disarmament to revise its procedures, update its work program and carry out purposeful work, or suspend its operations. The consensus rule is causing perpetual deadlock. Consensus among members of the Conference on Disarmament should not be necessary to begin or conclude negotiations on a multilateral convention.

16. Strengthen verification for disarmament. The Tokyo Forum calls for widespread adoption of effective verification measures. The scope of verification of nuclear disarmament should be expanded to non-deployed nuclear weapons and the dismantling of nuclear weapons. An effective verification protocol should be agreed for the Biological Weapons Convention, and implementation decisions weakening the verification regime of the Chemical Weapons Convention should be stopped and reversed.

17. Create effective non-compliance mechanisms for nuclear non-proliferation and disarmament. The Tokyo Forum calls on all states seeking nuclear non-proliferation and disarmament to actively support the development of arrangements through which states in non-compliance with arms control treaties will know not only that they will be caught, but also that they will face serious consequences. The international community must be united and unequivocal in its intended response to would-be violators based on a broad consensus, including possible recourse to Chapter VII of the UN Charter. A revitalised United Nations with a reformed and authoritative Security Council is essential to building and maintaining the support of the international community for the effective enforcement of compliance.

GLOSSARY

ABM	Anti-Ballistic Missile Treaty
BWC	Biological Weapons Convention
CD	Conference on Disarmament
CTBT	Comprehensive Nuclear-Test-Ban Treaty
CTBTO	Comprehensive Test-Ban-Treaty Organization
CTR	Cooperative Threat Reduction
CWC	Chemical Weapons Convention
DPRK	Democratic People's Republic of Korea
FMCT	Fissile Material Cut-Off Treaty
HEU	highly enriched uranium
IAEA	International Atomic Energy Agency
INF	Treaty on Intermediate- and Shorter-Range Nuclear Forces
LEU	low-enriched uranium
MTCR	Missile Technology Control Regime
NATO	North Atlantic Treaty Organization
NNWS	non-nuclear-weapon state(s)
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NSG	Nuclear Suppliers' Group
NWFZ	nuclear-weapon-free zone
NWS	nuclear-weapon state(s)
OPCW	Organization of the Prohibition of Chemical Weapons
P5	five Permanent Members of the United Nations Security Council
PrepCom	Preparatory Committee (for NPT review conference)
ROK	Republic of Korea
START	Strategic Arms Reduction Treaty
TMD	theatre missile defence
UN	United Nations
UNSCOM	United Nations Special Commission on Iraq
UNSCR	United Nations Security Council Resolution
USSR	Union of Soviet Socialist Republics
WMD	weapons of mass destruction

CONFERENCE ON DISARMAMENT

CD/1593

6 September 1999

Original: ENGLISH

LETTER DATED 6 SEPTEMBER 1999 FROM THE PERMANENT REPRESENTATIVE
OF FINLAND TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE
SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE TEXT OF THE
DECLARATION OF THE EUROPEAN UNION ON THE FISSILE MATERIAL
CUT-OFF TREATY NEGOTIATIONS

Please find enclosed the declaration of the European Union on the Fissile Material Cut-off Treaty negotiations. The associated countries to the EU align themselves with this declaration.

On behalf of the EU member States I would like to ask that this declaration be issued as an official document of the Conference on Disarmament.

(Signed) Markku Reimaa
Ambassador

GE.99-65792

Declaration of the European Union on the FMCT

The Central and Eastern European countries associated with the European Union (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia) and the associated countries Cyprus and Malta align themselves with this declaration.

As the 1999 session of the Conference on Disarmament is drawing to its conclusion, the European Union and the associated countries assure their support to the efforts of the President of the Conference on Disarmament to come to an agreement to start substantive work as soon as possible. At the same time they appreciate the work done by the previous Presidents in this difficult issue.

The Fissile Material Cut-off Treaty has been the long-standing goal of the international community. In 1993, the General Assembly of the United Nations unanimously recommended negotiations on a FMCT. In the decision on "Principles and Objectives for Nuclear Non-Proliferation and Disarmament" the States Parties to the Non-Proliferation Treaty unanimously recognised the importance of such negotiations in the full realization and effective implementation of article VI of the NPT. In 1995, and again in 1998, the Conference on Disarmament decided to establish an ad hoc committee. The General Assembly of the United Nations unanimously welcomed this decision in 1998 and encouraged the Conference on Disarmament to re-establish this ad hoc committee at the beginning of the 1999 session.

The European Union believes that a non-discriminatory, multilateral and internationally and effectively verifiable Fissile Material Cut-off Treaty constitutes, after the CTBT, a major step towards the achievement of both the nuclear non-proliferation and nuclear disarmament objectives envisaged in the NPT document on principles and objectives.

The European Union is convinced that a FMCT, by irreversibly limiting the fissile material stockpiles available for use in nuclear weapons and by establishing an effective verification system, will strengthen the international nuclear non-proliferation regime and will constitute a significant step towards the realization and effective implementation of article VI of the NPT.

In view of the agreement in the CD in August 1998 to establish an ad hoc committee on FMCT, it is incumbent on the CD to take an early decision to resume these negotiations.

The Member States of the European Union and the associated countries have a very clear position and objective: they will continue to work strenuously for the FMCT, they are ready to participate in negotiations on such a treaty actively and constructively and they will promote an early and successful outcome of negotiations.

The EU is of the view that the negotiations should start immediately and efforts should be pursued vigorously to reach an agreement on the remaining elements of a substantive programme of work.

CONFERENCE ON DISARMAMENT

CD/1614

25 May 2000

Original: ENGLISH

LETTER DATED 23 MAY 2000 FROM THE PERMANENT REPRESENTATIVE OF MEXICO ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING, ON BEHALF OF BRAZIL, EGYPT, IRELAND, MEXICO, NEW ZEALAND, SOUTH AFRICA AND SWEDEN, A PORTION OF THE TEXT ADOPTED BY CONSENSUS BY THE 2000 REVIEW CONFERENCE OF THE PARTIES TO THE TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS, REGARDING PRACTICAL STEPS FOR THE SYSTEMATIC AND PROGRESSIVE EFFORTS TO IMPLEMENT ARTICLE VI OF THE TREATY

On behalf of the delegations of Brazil, Egypt, Ireland, Mexico, New Zealand, South Africa and Sweden I have the honour to inform you that the 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons adopted by consensus, in its Final Document, practical steps for the systematic and progressive efforts to implement Article VI of the Treaty.

These steps read as follows:

"15. The Conference agrees on the following practical steps for the systematic and progressive efforts to implement Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons and paragraphs 3 and 4 (c) of the 1995 Decision on "Principles and Objectives for Nuclear Non-Proliferation and Disarmament":

1. The importance and urgency of signatures and ratifications, without delay and without conditions and in accordance with constitutional processes, to achieve the early entry into force of the Comprehensive Nuclear-Test-Ban Treaty.
2. A moratorium on nuclear-weapon-test explosions or any other nuclear explosions pending entry into force of that Treaty.
3. The necessity of negotiations in the Conference on Disarmament on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices in accordance with the statement of the Special Coordinator in 1995 and the mandate contained therein, taking into consideration both nuclear disarmament and nuclear non-proliferation objectives. The Conference on Disarmament is urged to agree on a programme of work which includes the immediate commencement of negotiations on such a treaty with a view to their conclusion within five years.
4. The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body with a mandate to deal with nuclear disarmament.

The Conference on Disarmament is urged to agree on a programme of work which includes the immediate establishment of such a body.

5. The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures.
6. An unequivocal undertaking by the nuclear-weapon States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.
7. The early entry into force and full implementation of START II and the conclusion of START III as soon as possible while preserving and strengthening the ABM Treaty as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons, in accordance with its provisions.
8. The completion and implementation of the Trilateral Initiative between the United States of America, the Russian Federation and the International Atomic Energy Agency.
9. Steps by all the nuclear-weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all:
 - Further efforts by the nuclear-weapon States to reduce their nuclear arsenals unilaterally.
 - Increased transparency by the nuclear-weapon States with regard to the nuclear-weapons capabilities and the implementation of agreements pursuant to Article VI and as a voluntary-confidence building measure to support further progress on nuclear disarmament.
 - The further reduction of non-strategic nuclear weapons, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process.
 - Concrete agreed measures to further reduce the operational status of nuclear weapons systems.
 - A diminishing role for nuclear weapons in security policies to minimize the risk that these weapons ever be used and to facilitate the process of their total elimination.
 - The engagement as soon as appropriate of all the nuclear-weapon States in the process leading to the total elimination of their nuclear weapons.

10. Arrangements by all nuclear-weapon States to place, as soon as practicable, fissile material designated by each of them as no longer required for military purposes under IAEA or other relevant international verification and arrangements for the disposition of such material for peaceful purposes, to ensure that such material remains permanently outside of military programmes.
11. Reaffirmation that the ultimate objective of the efforts of States in the disarmament process is general and complete disarmament under effective international control.
12. Regular reports, within the framework of the NPT strengthened review process, by all States parties on the implementation of Article VI and paragraph 4 (c) of the 1995 Decision on "Principles and Objectives for Nuclear Non-Proliferation and Disarmament", and recalling the Advisory Opinion of the International Court of Justice of 8 July 1996.
13. The further development of the verification capabilities that will be required to provide assurance of compliance with nuclear disarmament agreements for the achievement and maintenance of a nuclear-weapon-free world."

We request that this letter be circulated as an official document of the Conference on Disarmament.

(Signed)

Antonio de Icaza
Ambassador
Permanent Representative

SOUTH AFRICA

Working Paper

The Possible Scope and Requirements of the Fissile Material Treaty (FMT)

BASIC CONSIDERATIONS

1. In achieving the ideals of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) - namely to prevent the proliferation of nuclear weapons, to achieve the cessation of the nuclear arms race and to achieve nuclear disarmament - control over nuclear weapons materials and the cessation of their production for weapons purposes would be important steps in the complex political and technical process of nuclear disarmament. Nuclear weapons may range in sophistication from fission weapons to boosted weapons, thermonuclear weapons, fission-fusion-fission weapons and enhanced radiation weapons. All require certain specialized materials for their construction. Ceasing the production of such materials could lead to a quantitative capping of the number of weapons in existence and to laying the foundation for their eventual elimination.
2. For the purpose of developing some thoughts on the possible scope and requirements of a fissile material treaty (FMT), the considerations below, are used as a starting point :
 - (a) The NPT is the principal motivating treaty with respect to the ideal of nuclear disarmament. Treaties such as the Comprehensive Test Ban Treaty (CTBT) and the FMT are important in complementing and achieving this ideal.
 - (b) Articles VI and VII of the NPT recognise the importance of bilateral, multilateral or regional efforts towards the cessation of the nuclear arms race and nuclear disarmament, i.e efforts in parallel to the NPT.
 - (c) For pragmatic reasons the International Atomic Energy Agency (IAEA) could be considered as an appropriate Agency for verification of the FMT under certain conditions.
 - (d) For practical and political reasons, the declaration of historically produced stocks of weapons materials by all States with nuclear weapons is not believed to be feasible. Materials already declared as excess could be included as a starting point ("baseline") at entry into force of the FMT for a given State with nuclear weapons.
 - (e) The continued use of weapons grade material in naval military reactors will require special consideration.

- (f) Tritium is not a fissile material but without tritium many types of modern nuclear weapons will become ineffective. It is consequently considered unlikely that there would be agreement to include tritium in an FMT because of definitional and political problems.
- (g) A primary focus of the FMT should be to stop the further production of nuclear materials (in practice certain uranium and plutonium isotopes and perhaps also certain other trans-uranic elements) from which nuclear explosives can be made. Using the term "fissile material" in a generic sense for these weapons materials could cause misunderstanding - in a technical sense "fissile material" has different definitions. A common understanding will have to be agreed for the use of the term.
- (h) Although the FMT is intended to be a multilateral treaty, the practical effect of the Treaty will primarily affect only those few States producing, capable of producing or possessing nuclear materials that can be used for nuclear explosive purposes.

THE NPT AND DISARMAMENT

- 3. In view of Article VI and the relevant objectives contained in the Preamble, the NPT anticipated the cessation of the nuclear arms race and the achievement of the elimination of nuclear weapons.
- 4. A principal objective of the NPT is nuclear disarmament (along with the objectives of non-proliferation, technical verification, non-proliferation controls and the promotion of the peaceful uses of nuclear energy). Following on the 1995 NPT Review and Extension Conference (NPTREC) and in terms of the document on "Principles and Objectives" adopted there, the CTBT, has already been finalized. A further step in the process, but also an adjunct to the NPT, would be the FMT. The FMT is therefore one of the tools (together with other measures) which would lead to accomplishment of the NPT's objectives.
- 5. At the 2000 NPT Review Conference, the Nuclear Weapon States gave an unequivocal undertaking to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.
- 6. The 2000 NPT Review Conference also agreed on the necessity of negotiations in the Conference on Disarmament on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other explosive devices in accordance with the statement of the Special Coordinator in 1995 and the mandate contained therein, taking into consideration both nuclear disarmament and nuclear non-proliferation objectives. Furthermore, the Conference on Disarmament was urged to agree on a programme of work which includes the immediate commencement of negotiations on such a treaty with a view to its conclusion within five years.
- 7. Viewed from this perspective the FMT could be relatively simple :
 - (a) Capturing in an irreversible way weapons material declared as excess in an ongoing

process

- (b) Preventing altogether or regulating the further production of weapons-grade materials for legitimate (non-proscribed) uses such as fuel for research reactors, naval reactors, etc
- (c) Making "closed-down/decommissioned" production and associated facilities subject to verification to prevent their re-use for weapons purposes.

VERIFICATION

8. For the effective verification of this material, a system comprising of three components are foreseen :
- (a) A component dealing with facilities which had previously produced fissile material for nuclear explosive purposes.
 - (b) A component suitably adapted to weapons grade materials, declared as excess and placed under the supervision of the verification organisation while this material is still in a sensitive geometrical and compositional form.
 - (c) A component, which will be similar to or the same as IAEA safeguards, dealing with:
 - the materials once they have been re-worked into non-sensitive forms; and
 - for the production of materials for non-proscribed military uses allowed by the Treaty.

STOCKS

9. If under "stocks" the past production of weapons grade material is understood, then there are both political and practical reasons why a full/complete declaration of such stocks as a requirement of the FMT could be problematic in the negotiations for the treaty as well as for its subsequent implementation.
10. In declaring past production of weapons-grade Plutonium (Pu), even the most transparent of the Nuclear Weapon States (NWS), has in doing so revealed a problem of great practical significance, i.e the fact that no account could be given of about 2 800 kg of Pu - enough to manufacture several hundred nuclear weapons. The practical significance of declaring stocks with such a large discrepancy is therefore questionable. This is a practical problem which was also experienced in the South African case. During the "completeness investigation" in South Africa by the IAEA, the existence of a discrepancy could only be accepted on the strength of other supporting data (i.e other than nuclear materials

accounting), such as operational records, electricity consumption, reports on chemical losses, etc. Considering that South Africa produced a relatively small quantity of HEU over a period of about 15 years, the practical problem of giving an accurate production figure for tens and hundreds of tons of material produced over half a century would present significant practical problems. Declaration of nuclear material in weapons or directly associated with nuclear weapons without the ability to verify the declaration which will be made would therefore not contribute to confidence building.

11. The FMT could address weapons material which has been transferred from military use to peaceful nuclear activities (declared as excess). This excess material would be included in a starting inventory of a State upon entry into force of the FMT (without an obligation to declare its "completeness and correctness" from a production point of view) and would be subject to the verification machinery provided for in the treaty. Further material declared as excess in the future would continuously be added to the starting inventory in an irreversible way.

NAVAL REACTORS

12. The model for Comprehensive Safeguards Agreements (CSA), INFCIRC/153, has since its approval in 1972, contained an Article (Article 14) which allows nuclear material to be withdrawn from safeguards for "non-proscribed military activities".
13. The Article was specifically intended to be applied to nuclear material for naval nuclear reactors using HEU. In practice this Article has never been applied, probably because only the NWS have military naval reactors in operation (nuclear submarines and aircraft carriers) and NWS are not subject to Comprehensive Safeguards Agreements.
14. The need for fuel for naval reactors will exist as long as naval vessels using these reactors exist. The possibility of changing from HEU to LEU fuel is remote, especially for submarines.
15. The obvious conclusion is that an allowance will have to be made in the FMT for military naval reactors - an exception which has also been available for Non-Nuclear Weapon States (NNWS), in principle, for more than 25 years.

TRITIUM

16. Hydrogen has 3 isotopes; hydrogen itself, deuterium and tritium. Deuterium occurs in nature and is separated from ordinary water as 'heavy water' (i.e in the form of its compound with oxygen). Tritium, however, is a radioactive substance with a half-life of about 12 years which is produced in reactors by irradiating an isotope of lithium (Li6) with neutrons.
17. Most, if not all, modern nuclear weapons use tritium, i.e to either boost the yield of an

implosion (Pu) bomb or to combine with deuterium in a fusion reaction in thermonuclear weapons. Without replenishing the decaying tritium from time to time, the effective yield of some nuclear weapons would be drastically reduced.

18. While a ban on the production of tritium would starve certain nuclear weapons from an essential component, leading to the natural 'death' over time of many modern weapons containing this material, it would not eliminate all nuclear weapons. A plutonium or HEU bomb, less effective with regard to yield, can still be made without tritium. The miniaturisation of nuclear devices will, however, be severely handicapped.
19. The need for tritium will, in practice, only disappear to the extent that nuclear disarmament undertakings reach their final objective.
20. The production of tritium in civil nuclear reactors for use in nuclear explosive devices should be prohibited by the FMT.

FISSILE MATERIAL

21. The devastating energy release of a fission bomb is brought about by an uncontrolled nuclear chain reaction of fissioning ('splitting') uranium or plutonium nuclei. The splitting of such a nucleus by a bombarding neutron, releases more neutrons leading to a rapidly escalating chain reaction of fissioning nuclei with the accompanying release of vast quantities of energy. An important aspect, relevant in the context of this discussion, is that the chain reaction in nuclear weapons is associated with metal systems and fast neutrons.
22. In contrast to this the controlled nuclear chain reaction which takes place in a commercial power reactor is the result of slow neutrons. The fast neutrons released in fission reactions are slowed down by collisions with moderator atoms such as hydrogen. The water in the core of a LWR therefore serves two purposes, cooling the reactor and slowing down the neutrons.
23. Certain nuclides can be made to chain react with slow as well as fast neutrons and certain others only with fast neutrons. In addition, many nuclides can be made to fission (split) when bombarded with suitable particles (not only neutrons), releasing energy, but without leading to a chain reaction.
24. The information given in the preceding paragraphs is intended to give the necessary background for appreciating a specific problem with the name of the FMT, i.e. understanding what is meant (or intended to be meant) by "fissile material". Various definitions for this term exist in the technical literature. For example, in a 1999 Technical Note of the IAEA, the following definition is given: "All nuclear weapons employ fission energy components. All isotopes of all elements beginning with uranium will fission when struck by a neutron, i.e., they are to some extent fissionable. The fissionability of the isotopes of a given element show marked differences (e.g., ²³⁵U is much more

fissionable than ^{238}U). Most heavy nuclei require that the incident neutron has a substantial amount of kinetic energy to induce fission, however, a few heavy nuclei will fission when the kinetic energy of the incident neutrons is essentially zero; such nuclei are said to be fissile. ^{233}U , ^{235}U , ^{239}Pu and ^{241}Pu are the most common fissile nuclides".

25. Without further discussion of the various definitions, it is clear that the term "fissile material" is usually associated with materials chain-reacting with slow neutrons, i.e. materials used in power reactors. However, the term also includes weapons materials because materials which chain-react with slow neutrons also do so with fast neutrons. In using the word "fissile" in the FMT, it should be made very clear that it does not include stopping the production of "fissile material" for other than nuclear explosive uses. Without such a qualifier, a ban on production for nuclear weapons purposes could mean stopping the production of commercial reactor fuel and of weapons materials. Whereas it is accepted that it would be difficult if not impossible to change the name of the Treaty at this stage it should be clear that "fissile material" should be defined as addressing nuclear materials that can be made to chain react for the purpose of a nuclear weapon.

OTHER TRANSURANIC ELEMENTS

26. The IAEA has recently shown an interest in the proliferation potential of neptunium (Np) and americium (Am). These elements are formed at very low concentrations in nuclear fuel when irradiated in a reactor and need specially designed industrial scale facilities to separate it from unused uranium or produced Pu recovered in plants which reprocess irradiated fuel, or in plants processing the high level waste resulting from reprocessing. Present quantities of separated Np and Am are small. However, Np is suitable for making a nuclear explosive device (even a relatively simple gun-type device). There is a difference of opinion regarding the credible use of Am for such a purpose due to its physical (not nuclear) characteristics. Np should probably be included in the FMT.

A POSSIBLE MODEL FOR THE FMT

What would remain outside the FMT

27. As long as there is no final agreement on nuclear disarmament, certain activities OUTSIDE THE FMT would continue :
- (a) The isotope required for a plutonium device, i.e. Pu^{239} , is inevitably accompanied by other isotopes of Pu such as Pu^{241} and Pu^{240} . Being radioactive some of these decay to americium with a half-life of 14,4 years, which in itself is radioactive. Radioactive decay is accompanied by heat production which is detrimental to the fine engineering tolerances required in the core of the weapon. The plutonium cores of weapons therefore have to be removed from time to time and reworked to remove the americium and other decay products. In addition, tritium has to be replenished.

There will consequently be facilities associated with fabrication, refabrication and storage of weapons material and the weapons themselves, that would exist outside the FMT as long as there are nuclear weapons.

- (b) Facilities for dismantling nuclear weapons agreed to under disarmament (or voluntary) undertakings would most probably also not be accessible to international inspections due to proliferation concerns.
 - (c) Fuel fabrication for military naval reactors, would also not be accessible for reasons discussed above.
28. In summary, what would not be covered by the FMT would probably be :
- (a) Weapons-grade material in existing weapons and in reserve for such weapons;
 - (b) Associated fabrication, refabrication and storage facilities;
 - (c) Facilities for the active dismantling of obsolete and redundant weapons, as well as those agreed to in terms of disarmament undertakings; and
 - (d) Fuel fabrication and reprocessing facilities associated with military naval reactors.

What could be covered by the FMT

29. Production facilities for the nuclear materials agreed to under the FMT will obviously be closed down/decommissioned¹. It is possible that certain redundant fabrication or refabrication facilities will also be closed down. In addition certain facilities will be required to store the nuclear components declared as excess in their original geometrical or compositional forms. If these components are to be reworked to a less sensitive form, dedicated facilities may be employed for that purpose.
30. It is evident that most of these facilities and the warheads themselves may contain very sensitive information from a proliferation point of view. A special verification regime (no direct access for measurements, managed access in certain areas, etc) will be necessary with the prime purpose to ensure irreversibility, i.e that material declared as excess does not return to the weapons/military domain and facilities are not re-used for their original weapons-related purposes.
31. In summary :

¹ See IAEA definitions as they appear in the Additional Protocol (INFCIRC/540), namely:

Closed-down facility: An installation where operations have been stopped and the nuclear material removed but which has not been decommissioned.

Decommissioned facility: An installation at which residual structures and equipment essential for its use have been removed or rendered inoperable so that it is not used to store and can no longer be used to handle, process or utilise nuclear material.

- (a) The type of 'fissile material' agreed to under the FMT will no longer be produced (probably only HEU and weapons-grade Pu). However, if fresh HEU needs to be produced for use in naval reactors, it will be done under strict verification.
- (b) Material declared as excess (the result of parallel disarmament undertakings) would be covered by the FMT and be subject to appropriate verification.
- (c) Facilities that will be closed down/decommissioned in terms of the Treaty and facilities for reworking the material which has been declared as excess and which is still in sensitive forms should be subject to appropriate verification.
- (d) The verification regime would consequently have to be adapted to minimize proliferation concerns.
- (e) The main purpose of verification will be to ensure irreversibility (materials and facilities).

Excess material in non-sensitive form

- 32. Once original weapons material has been reworked into a less sensitive form, it can be introduced into the verification system as new nuclear material. Since it would be HEU or predominantly Pu239, the material would probably be downgraded (to LEU in the case of HEU) or used for the production of MOX (mixed oxide) fuel as the need arises. The rest of the material will be stored under normal verification conditions. These processes or the storage of the material should be subject to verification similar to IAEA safeguards.
- 33. As more and more material is transferred from the military to the civil domain, this material could be used in power reactors after suitable fuel fabrication. This could impact on the need for the production of new low enriched uranium from source material and reprocessing of spent fuel for the recovery of unused U235 and newly produced Pu. However, it would not obviate the need for enrichment and reprocessing capabilities in the long-term and these activities should therefore be allowed to continue under normal safeguards verification procedures. The FMT should not prohibit these activities - adequate safeguards measures exist to ensure that enrichment and reprocessing facilities are not used contrary to non-proliferation requirements.

THE INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA) AS A POTENTIAL VERIFICATION ORGANISATION FOR THE FMT

- 34. In spite of the fact that verification of the FMT will in practice have a significant impact only on those few States that produce or possess nuclear weapons and/or weapons-grade materials, verification by the IAEA could mean a 2 to 3 fold increase in the Safeguards budget because of the extended nuclear activities of these States. This will create its own problems amongst the Member States of the IAEA. Creating a new verification

organization may be even more costly. Another serious problem is the unavailability of adequately trained and experienced inspectors. This could create serious problems if the number of IAEA inspectors has to be doubled, say, in the short term.

35. Some of the problems may be addressed in the following ways:

- (a) Budget costs : The FMT could have its own budget. The IAEA could then be contracted for its verification service. This would avoid the traditional problem of linkage between the Safeguards and Technical Cooperation budgets in the IAEA.
- (b) The costs of verification : Given the large quantities of new material and number of additional facilities to be covered it is unavoidable that the costs of IAEA safeguards implementation will have to be fundamentally reviewed. This can be done through legal rights that the IAEA always had but never exercised; new rights acquired by the Agency in terms of the Additional Protocol; and the use of new technological advances.
- (c) Availability of inspectors : There is no short-term solution for this problem. A build-up of the required number of inspectors will have to be a combined effort between the IAEA and its Member States and could take several years.

36. The adoption of the Integrated Safeguards System under the umbrella of Strengthened Safeguards, already provides for the reduction of traditional safeguards verification activities under certain conditions. This should be even further developed in view of the possible additional burden of the FMT, the main focus being on the verification of nuclear materials which are of real proliferation concern.

CONCLUSIONS

- 37. It is accepted that the FMT would be a significant step in the process leading to nuclear disarmament.
- 38. A clear understanding should be reached on which "fissile materials" should be covered by the treaty.
- 39. In addition to a ban on the further production of nuclear materials for nuclear weapons, the FMT's other main function would be to act as a receptacle for excess weapons material and associated closed-down/decommissioned facilities, in transition from military explosive use to peaceful use, to ensure the irreversibility of the transition.
- 40. The IAEA has the potential to take-up the responsibility for verification of FMT undertakings but certain proliferation and resource constraints will have to be addressed.

41. Once the nuclear material of weapons origin has passed into the peaceful, safeguarded, domain (together with the associated facilities) this could overburden the existing IAEA safeguards verification regime and adjustments will have to be made to the traditional way in which, for example, safeguards are implemented - e.g. with regard to the treatment of all plutonium (weapons- and reactor-grade) as weapons-usable material.
 42. Declarations of historical production could be seen as a political gesture of goodwill although the practical difficulties regarding completeness will need to be acknowledged.
 43. The production of tritium in civil power reactors for use in nuclear explosive devices and the production of nuclear material for naval reactors will require special consideration in the FMT.
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CONFERENCE ON DISARMAMENT

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SOUTH AFRICA

Working Paper

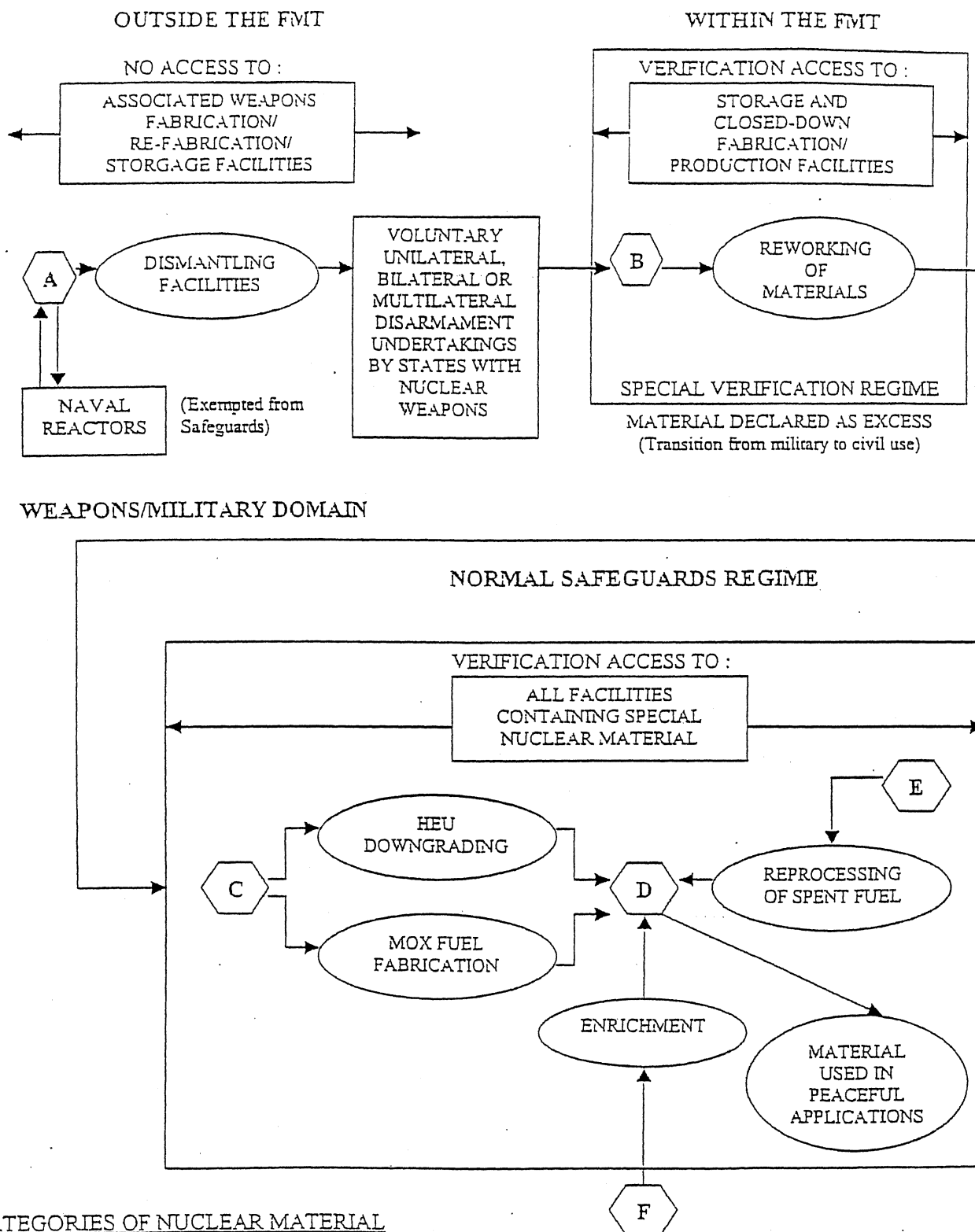
The Possible Scope and Requirements of the Fissile Material Treaty (FMT)

Addendum



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CONFERENCE ON DISARMAMENT

CD/1676

19 June 2002

Original: ENGLISH

LETTER DATED 11 JUNE 2002 FROM THE PERMANENT REPRESENTATIVE OF THE NETHERLANDS TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING A SUMMARY OF THE OPEN-ENDED INFORMAL MEETING ON A TREATY BANNING THE PRODUCTION OF FISSILE MATERIAL FOR NUCLEAR WEAPONS AND OTHER NUCLEAR EXPLOSIVE DEVICES HELD IN GENEVA ON 7 JUNE 2002

I have the honour to forward to you a summary of the open-ended informal meeting on the issue of banning the production of fissile material for nuclear weapon and other nuclear explosive devices, which was organized in Geneva on Friday, 7 June 2002 by the delegation of the Kingdom of the Netherlands to the Conference on Disarmament.

The total number of participants in this meeting was well over 100. Over 40 countries attended this meeting as well as representatives from NGOs, some international organizations as well as the IAEA in Vienna.

In his introduction, Dr. Barnaby – a well-known nuclear physicist and former director of SIPRI in Stockholm – outlined the need for such a treaty. The CTBT – apart from being an efficient non-proliferation instrument – sets a qualitative limit to the development of nuclear weapons. The treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices will set a quantitative limit on the production of fissile material. It therefore will be an important contribution towards non-proliferation and an essential next step towards nuclear disarmament. It will also contribute to reducing the risks of nuclear terrorism.

The discussion afterwards highlighted the need for a better understanding of the subject. Issues raised in the discussion included the risks of proliferation of plutonium and highly enriched uranium, the physical protection of fissile material stocks, reprocessing, MOX-ing, semi-military uses like naval-propulsion, nuclear terrorism and the feasibility of producing a so-called “dirty bomb” from highly enriched uranium.

Participants encouraged my delegation to continue this exercise. My delegation intends to organize the next meeting on substantive issues in this exercise mid-September.

GE.02-62233

I would be grateful if you could issue this letter as well as the attachments to this letter as an official document of the Conference on Disarmament, and distribute it to all Member States of the Conference and non-member States participating in its work.

(Signed:)

Chris C. Sanders
Ambassador
Permanent Representative of the Netherlands
to the Conference on Disarmament

Non-Paper on the Exercise on Banning the Production of Fissile Material for Nuclear Weapons and Other Nuclear Explosive Devices: an Essential Step Towards Nuclear Disarmament and Non-Proliferation

Organized by the Permanent Mission of the Netherlands to the Conference on Disarmament
Geneva, 7 June 2002

Banning the production of fissile material for nuclear weapons and other nuclear explosive devices is an essential step towards nuclear disarmament and non-proliferation.

For several years now, the UN General Assembly has adopted – by consensus – a resolution, which calls for the immediate commencement in the Conference on Disarmament of negotiations on such a treaty. Although the mandate for these negotiations (CD/1299) dates back to 1995, these negotiations have still not yet begun because of the stalemate in the Conference on Disarmament.

Our first and foremost priority is, and will be, to reach a consensus on a Program of Work for the Conference on Disarmament, which is a vital instrument and the sole body for multilateral disarmament negotiations. Many Presidents of the Conference have made great endeavours to reach that consensus; unfortunately, however, up till now their efforts have not led to the desired result.

As long as the CD has not reached consensus on its Program of Work, we consider it important and necessary to address the important nuclear disarmament and non-proliferation issues in a constructive way. With that objective the Permanent Mission of the Netherlands to the Conference on Disarmament will organize a sequence of open-ended informal meetings of an informative and educational nature on the issue of fissile material for nuclear weapons and other nuclear explosive devices.

The purpose of this exercise is to better prepare delegations in Geneva for the actual negotiations in the Conference on Disarmament on a treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices.

This will be done through informative and educational briefings, followed by a discussion and exchange of views among participants in the exercise. The topics of these meetings will be of a general nature, concerning issues relevant to these negotiations.

The exercise is open to all Member States to the Conference on Disarmament, as well as to those States that have Observer Status to the Conference on Disarmament. Occasionally, experts from e.g. the IAEA, think tanks and NGOs will also be invited to participate in and contribute to this exercise.

This exercise will be organized in a fully transparent way. The Permanent Mission of the Netherlands to the Conference on Disarmament will provide brief summaries of topics discussed in the meetings of this exercise to all interested delegations.

Attendance at the informal meetings of this exercise, organized by the Permanent Mission of the Netherlands to the Conference on Disarmament, or participation in the discussions, will in no way affect your national position on the Program of Work of the Conference in general, nor on the future negotiations on a treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices in particular.

PUTTING A BAN ON THE PRODUCTION OF FISSILE MATERIALS
FOR USE IN NUCLEAR WEAPONS INTO CONTEXT

*Its role in nuclear proliferation, nuclear
disarmament and nuclear terrorism*

Frank Barnaby

When the Cold War ended, about 10 years ago, it was generally assumed that the importance given by political leaders to nuclear weapons would dramatically decrease, and many hoped that there would be fast progress in nuclear disarmament leading to the abolition of nuclear weapons. The first step in this direction would be a Comprehensive Test Ban Treaty (CTBT), closely followed by a ban on the production of fissile materials for use in nuclear weapons.

Unfortunately, this was not to be. In fact, nuclear weapons are now back on the agenda to an extent reminiscent to that at the height of the Cold War. For example, according to leaks to the press, the US Nuclear Policy Statement, completed at the end of 2001, describes the role of nuclear weapons well into the future, not as part of a nuclear deterrent policy but as part of America's war-fighting strategy. Apparently, the Pentagon is preparing contingency plans to use nuclear weapons against targets in seven or more countries – including China, Iran, Iraq, Libya, Russia and Syria.

And in March 2002, the British Minister of Defence announced, for the first time ever, that British nuclear weapons could be used in a first strike and against countries that used biological or chemical weapons against British forces or against targets in the UK. Both the American and British governments have now reneged on their security assurance guarantees not to use nuclear weapons against countries that do not have them and are not allied to a nuclear-weapon power.

These new policies have been adopted in spite of the "unequivocal undertaking to accomplish the total elimination" of their nuclear weapons entered into by the USA and the UK, along with the other established nuclear-weapon states (China, France and Russia) at the 2000 Review Conference of the Non-Proliferation Treaty (NPT).

One hundred and eighty-seven countries have ratified the NPT, making it the world's most comprehensive multilateral nuclear arms control treaty.

How could far-reaching nuclear disarmament be achieved?

It is hard to see far-reaching nuclear disarmament being achieved except by a phased programme of measures, which many believe should be a timed programme. The programme should first aim to prevent both horizontal nuclear proliferation (the spread of nuclear weapons to countries which do not now have them) and vertical nuclear proliferation (increases in the numbers and improvements in the quality of the nuclear weapons in the arsenals of the nuclear-weapon powers). It should then move to reducing the nuclear arsenals, eventually to zero.

This would involve the following major measures:

(1) existing treaties, the most important of which are:

- the 1991 START I Treaty and the 1993 START II Treaty;
- the 1972 Anti-Ballistic Missile Treaty;
- the 1987 Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles (INF Treaty);
- the 1968 Nuclear Non-Proliferation Treaty (NPT);
- the 1996 Comprehensive Nuclear Test Ban Treaty (CTBT);
- the four treaties creating nuclear-weapon-free zones (in Latin America [1967], in the South Pacific [1985], in South East Asia [1995], and in Africa [1996]); and

(2) measures yet to be negotiated, including:

- further reductions in the American and ex-Soviet tactical and strategic nuclear arsenals below the levels so far bilaterally negotiated or unilaterally announced;
- * reductions in the British, French, and Chinese nuclear arsenals by multilateral negotiations;
- the standardization of the nuclear-export policies of the nuclear suppliers that should be made legally enforceable with sanctions, preferably in a treaty;
- a treaty prohibiting the first use of nuclear weapons, ratified by all the nuclear-weapon powers;
- a strengthening of the international nuclear safeguards system; and
- a ban on the further production of fissile materials for use in nuclear weapons.

Of the existing treaties, the START II Treaty has yet to be ratified by the USA and will not be during the Bush Presidency, if ever; the US will leave the ABM Treaty in June 2002; and the CTBT, fatally weakened by the failure of the US to ratify it, has yet to come into force.

It is generally assumed that the next nuclear arms control measure negotiated will be a multilateral treaty prohibiting the further production of fissile material for nuclear weapons (often called a Fissile Material Cut-Off Treaty, FMCT) and that the negotiations will take place in the Conference on Disarmament (CD) in Geneva.

American and Russian bilateral talks

The vast bulk of the 30,000 or so nuclear weapons in today's world are American or Russian (see table below). The other countries with nuclear weapons – China, France, the United Kingdom, India, Israel and Pakistan – have a total of about 1,200 in their nuclear arsenals.

Although the Bush Administration has announced its willingness and intention to cut the number of nuclear weapons it deploys, it is maintaining thousands of nuclear weapons in its core stocks and is planning the development of new nuclear weapons – a nuclear warhead able to penetrate deep into the ground, to destroy hardened underground targets like bunkers; a new intercontinental ballistic missile to be deployed in 2020; and a new bomber to be operational in 2040. By turning its back on the CTBT, the US may have signalled an intention to start nuclear testing again. There is also talk of putting nuclear warheads on anti-ballistic missiles as part of the US National Missile Defence programme. The pressure to use nuclear-typed anti-ballistic missiles will increase as more tests using conventional hit-to-kill anti-ballistic missiles fail.

These new developments are planned to revitalize American nuclear forces to include a “new Triad of nuclear capabilities that combine nuclear and conventional offensive strikes with missile defences and nuclear-weapons infrastructure”. They demonstrate that the Bush Administration believes that nuclear weapons will be an integral part of US military forces for at least the next 50 years.

The Americans have officially announced that they would like to reduce the number of their deployed strategic nuclear weapons from the current 7,000 or so nuclear warheads, most of which are on alert status able to be fired on 15 minutes notice, to between 1,700 and 2,200 deployed strategic nuclear weapons.

At the Bush-Putin summit, May 23 to 26, 2002, the Russians and Americans agreed to a Treaty reducing the numbers of deployed strategic nuclear warheads to between 1,700 and 2,200 by the year 2012. This is a considerable reduction in the current number of about 6,000 on each side.

But there are serious objections to the Treaty. There is no requirement to dismantle retired warheads; each side can return to any force level it chooses after 2012; each side can pull out of the Treaty with 90 day's notice; there are no controls on tactical nuclear weapons; and there are no commitments on the verification of the Treaty. And a major question is: Will the Russian Duma and the USA Senate ratify the Treaty?

The USA and Russia are likely to retain a stockpile of whole weapons and components that will allow them to deploy about 16,000 more nuclear weapons very rapidly if they take the political decision to do so.

The treaty is hardly a nuclear disarmament treaty. Rather it is an agreement to limit the number of deployed nuclear weapons kept on alert status. This is, of course, something to be pleased about. Given the current high level of trust between the USA and Russia, many observers argue that they could have irreversibly reduced their nuclear arsenals to a much greater extent.

The next steps

It is apparent that the Bush Administration sees no point in negotiating multilateral treaties. It prefers unilateral steps. The only multilateral treaty that the Bush Administration is really keen to maintain is the Non-Proliferation Treaty. It also wants negotiated a ban on the further production of fissile materials for use in nuclear weapons. This gives some hope that such a ban will in due course be negotiated.

What has happened so far

The concept of a FMCT dates back 56 years to the end of World War II, making it the first officially suggested nuclear arms control measure. A FMCT was part of American Baruch Plan. It was further advanced by President Dwight Eisenhower in his 'Atoms for Peace' speech at the United Nations General Assembly on 8 December, 1953, when he said: "The United States would seek more than the mere reduction or elimination of atomic materials for military purposes".

During the 1960s, when the negotiations for a NPT were in progress, a ban on the production of fissile materials for military purposes was included in a group of measures - together with a CTBT, reductions in the nuclear arsenals of the nuclear-weapon powers, and the international management, control, and storage of plutonium. After 1978, resolutions calling for a ban on the production of fissile materials for nuclear weapons were regularly passed by the General Assembly but there was little hope of progress while the Cold War was on.

With the end of the Cold War and the perceived need to make progress in arms control, the concept in its own right was given a considerable impetus by President Bill Clinton. In his speech to the General Assembly in September 1993 he said: "We will pursue new steps to control the materials for nuclear weapons. Growing global stockpiles of plutonium and highly enriched uranium are raising the danger of nuclear terrorism in all nations. We will press for international agreement that would ban production of these materials for ever." Strong American support seemed to make such a ban realistic and attainable.

In 1993, General Assembly Resolution 48/75L recommended the negotiation of a non-discriminatory, multilateral, and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices. It requests the "International Atomic Energy Agency to provide assistance for examination of verification arrangements for such a treaty" but it does not say precisely what the role of the Agency should be. The treaty described in the Resolution would ban production but it says nothing about existing stocks of fissile materials. The Resolution was adopted by consensus.

As defined in the United Nations General Assembly Resolution, a treaty banning the production of fissile materials would cover the production of weapon-grade plutonium (plutonium containing more than 93 per cent of the isotope plutonium-239), weapon-grade highly-enriched uranium (uranium enriched to over 90 per cent uranium-235), and uranium-233 for nuclear weapons or other nuclear explosive devices, or outside of international safeguards.

On 25 January 1994, the members of the CD in Geneva agreed to appoint a Special Co-ordinator to "seek the views of its members on the most appropriate arrangement to negotiate" a FMCT. Although there was support for the negotiations of a FMCT to be conducted in the CD, it was soon apparent to the Special Co-ordinator, Canadian Ambassador Gerald E. Shannon, that a crucial political issue was the scope of the FMCT. Would it include the past production as well as the future production of fissile materials for nuclear weapons?

It was not until 23 March 1995 that Ambassador Shannon was able to report consensus on the negotiating mandate for the fissile-material ban and the establishment of an "*Ad hoc* Committee to negotiate a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other explosive devices." The difficulty about defining the scope of the ban was not solved but the adoption of the mandate was achieved by a compromise (some would say a fudge).

In the words of Ambassador Shannon: "During the course of my consultation, many delegations expressed concerns about a variety of issues relating to fissile material,

including the appropriate scope of the convention. Some delegations expressed the view that this mandate would permit consideration in the Committee only of the future production of fissile material. Other delegations were of the view that the mandate would permit consideration not only of future but also of past production. Still others were of the view that consideration should not only relate to production of fissile materials (past or future) but also to other issues, such as the management of such material. It has been agreed by delegations that the mandate for the establishment of the ad hoc Committee does not preclude any delegation from raising for consideration in the ad Hoc Committee any of the above noted issues”.

No further progress on discussions in the CD about a FMCT was made until after the 1998 Indian and Pakistani nuclear-weapon tests. Until then, a number of CD members, mainly non-aligned, wanted the negotiation of a FMCT to be linked with discussions of a phased timetable of nuclear disarmament. The established nuclear-weapon powers have consistently refused to agree to such a link.

At the end of its 1998 session, the CD did establish an *ad hoc* committee to start negotiations of a FMCT. Canadian Ambassador Mark Moher chaired the committee. The committee lasted only three weeks before the session ended.

Obstacles to a FMCT

No decision was possible at the CD to reconvene the committee in 1999. Major obstacles to getting the negotiation of treaty underway were conflicts over how to deal with existing military stockpiles of fissile materials and over the relation of a FMCT to nuclear disarmament, particularly to a timed programme of nuclear disarmament.

The attitudes of the India, Pakistan and Israel, all of them nuclear-weapon powers, to the negotiation of a FMCT are, of course, very important. Pakistan has announced its willingness to agree to the negotiations of a FMCT at the CD but wants stocks to be included. The five established nuclear-weapon states, India and Israel want stocks to be excluded. Israel agreed to the commencement of negotiations but stated that it “reserved its position on the substance” of the issues negotiated.

Currently (June 2002), a (if not the) main obstacle to the commencement of negotiations of a FMCT is the attitude of China. Other members of the CD who were demanding a linkage of a FMCT to a timed programme of nuclear disarmament appear to have dropped their demands.

China argues strongly that a treaty on the prevention of an arms race in outer space (PAROS) should be negotiated at the CD. And it will not agree to the reconvening of the *ad hoc* committee to negotiate a FMCT unless an *ad hoc* committee to negotiate a treaty on PAROS is also established. China would also like a third *ad hoc* CD committee to discuss nuclear disarmament, all three committees to work in parallel.

If China would drop its linkage of a FMCT with PAROS, there seems to be no reason why negotiations for a FMCT should not quickly begin

The benefits of a FMCT

In summary, a FMCT is needed to:

- Restart negotiations on further nuclear arms control and disarmament measures - without a FMCT there is, to say the least, unlikely to be any progress in nuclear arms control and disarmament;
- Control the spread of nuclear weapons to countries that do not now have them;
- Encourage the control of fissile materials from which nuclear weapons or nuclear explosives can be fabricated;
- Increase the amount of weapon-usable fissile materials under international safeguards;
- Improve the effectiveness of nuclear export policies; and
- Reduce the risk of nuclear terrorism.

It should be noted that almost all plutonium, including that produced in civil nuclear reactors, could be used to produce effective nuclear weapons. The global stock of civil plutonium, separated from spent nuclear-power reactor fuel elements and kept in plutonium stores, is currently about 300 tonnes, enough to produce at least 60,000 nuclear weapons – twice the number now in the world's nuclear arsenals. A major issue is, therefore, whether or not a FMCT should somehow include civil plutonium within its scope.

In conclusion, an effective FMCT would reduce access to fissile materials by preventing the production of more of them for use in nuclear weapons and would

increase the amount of weapon-usable fissile materials under international safeguards. Both of these factors would make it more difficult to divert illegally fissile materials for the fabrication of nuclear weapons and explosives. The risk of both nuclear proliferation and nuclear terrorism would be reduced.

Table. THE NUCLEAR ARSENALS

Country total number of nuclear weapons deployed (strategic and tactical)

	Strategic	tactical	total
USA	7,200	1,670	8,870
Russia	5,600	3,600*	9,200
China	281	120	401
France	288	60	348
United Kingdom	85	0	185
India			about 35
Israel			about 200
Pakistan			about 36

TOTAL about 20,000**

- * includes 1,200 nuclear warheads on anti-ballistic missiles around Moscow
** in addition, there are over 10,000 nuclear weapons in reserve, mainly in the USA and Russia.

CONFERENCE ON DISARMAMENT

CD/1683*
3 September 2002

Original: ENGLISH

LETTER DATED 27 JUNE 2002 FROM THE PERMANENT REPRESENTATIVE OF IRELAND ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE ENGLISH TEXT OF THE PAPER SUBMITTED BY EGYPT ON BEHALF OF THE NEW AGENDA COUNTRIES TO THE FIRST SESSION OF THE PREPARATORY COMMITTEE FOR THE 2005 REVIEW CONFERENCE OF THE PARTIES TO THE TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS

I have the honour to forward to you the English language version of the paper submitted by Egypt on behalf of the New Agenda countries to the First Session of the Preparatory Committee for the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons.

I would be grateful if you would issue this paper as an official document of the Conference on Disarmament and distribute it to all member States and non-member participants of the Conference.

(Signed:) Mary WHELAN
Ambassador
Permanent Representative

* Reproduced from previously issued document NPT/CONF.2005/PC.I/9 of 5 April 2002 as attached.
GE.02-63853

New Agenda Coalition
Paper submitted by Egypt on behalf of the New Agenda Countries

I. Background

1. In 1995, the States parties extended the Nuclear Non Proliferation Treaty indefinitely and undertook to make every effort to achieve its universality. The Review Process of the Treaty was strengthened and Principles and objectives to address the implementation of the Treaty were adopted. The Resolution on the Middle East was adopted as an integral part of the 1995 package.
2. In 1996, the Advisory Opinion of the International Court of Justice concluded unanimously that: "There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control".
3. The Final Document of the 2000 NPT Review Conference represents a positive step on the road to nuclear disarmament. In particular, nuclear-weapon States made the unequivocal undertaking to accomplish the total elimination of their nuclear arsenals and agreed on practical steps to be taken by them that would lead to nuclear disarmament. To this end, additional steps were necessary to improve the effectiveness of the strengthened review process for the Treaty.

II. Fundamental Principles

4. The participation of the international community as a whole is central to the maintenance and enhancement of international peace and stability. International security is a collective concern requiring collective engagement. Internationally negotiated treaties in the field of disarmament have made a fundamental contribution to international peace and security. Unilateral and bilateral nuclear disarmament measures complement the treaty-based multilateral approach towards nuclear disarmament. It is essential that fundamental principles, such as transparency, verification and irreversibility, be applied to all disarmament measures.
5. We reaffirm that any presumption of the indefinite possession of nuclear weapons by the nuclear-weapon States is incompatible with the integrity and sustainability of the nuclear non-proliferation regime and with the broader goal of the maintenance of international peace and security.
6. Irreversibility in nuclear disarmament, nuclear reductions, and other related nuclear arms control measures is imperative. A fundamental pre-requisite for promoting nuclear non-proliferation is continuous irreversible progress in nuclear arms reductions.
7. Each article of the Treaty is binding on the respective State parties at all times and in all circumstances. It is imperative that all States parties be held fully accountable with respect to the strict

compliance of their obligations under the Treaty.

8. Further progress on disarmament must be a major determinant in achieving and in sustaining international stability. The 2000 NPT undertakings on nuclear disarmament have been given and implementation of them remains the imperative.

9. A nuclear weapon-free world will ultimately require the underpinning of a universal and multilaterally negotiated legally binding instrument or a framework encompassing a mutually reinforcing sets of instruments.

III. Developments since the 2000 NPT Review Conference

10. To date, there have been few advances in the implementation of the thirteen steps agreed to at the 2000 NPT Review Conference.

11. We remain concerned that in the post Cold War security environment, security policies and defense doctrines continue to be based on the possession of nuclear weapons. The commitment to diminish the role of nuclear weapons in security policies and defense doctrines has yet to materialize. This lack of progress is inconsistent with the unequivocal undertaking by the nuclear-weapon States to achieve the total elimination of their nuclear arsenals.

12. In addition, we are deeply concerned about emerging approaches to the future role of nuclear weapons as a part of new security strategies.

13. The Conference on Disarmament has continued to fail to deal with nuclear disarmament and to resume negotiations on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices taking into consideration both nuclear disarmament and nuclear non proliferation objectives. The expectations of progress that resulted from the 2000 NPT Review Conference have to date not been met.

14. Although implementation of the CTBT's international monitoring system has proceeded, the CTBT has not yet entered into force.

15. There are no indications that nuclear-weapon States have increased transparency measures.

16. Measures have been taken by one nuclear-weapon State to unilaterally reduce the operational status of its nuclear weapons systems.

17. To date, there is no evidence of any agreed concrete measures to reduce the operational status of nuclear weapon systems.

18. There is no sign of efforts involving all of the five nuclear-weapon States in the process leading

to the total elimination of nuclear weapons. On the contrary, there are worrying signs of the development of new generations of nuclear weapons.

19. While welcoming the statements of intent regarding substantial cuts by the United States and Russian Federation to deployed nuclear arsenals, we remain deeply concerned at the continuing possibility that nuclear weapons could be used. Despite the intentions of, and past achievements in bilateral and unilateral reductions, the total number of nuclear weapons deployed and stockpiled still amounts to thousands.

20. There is concern that the notification of withdrawal by one of the State parties to the treaty on the limitation of Anti-Ballistic Missile systems (ABM), the additional element of uncertainty it brings and its impact on strategic stability as an important factor contributing to and facilitating nuclear disarmament, will have negative consequences on nuclear disarmament and non-proliferation. It could also have grave consequences for the future of global security and create an apparent rationale for action based solely on unilateral concerns. Any action, including development of missile defense systems, which could impact negatively on nuclear disarmament and non-proliferation, is of concern to the international community. We are concerned about the risk of a new arms race on earth and in outer space.

21. The achievements and promise the bilateral START process held, including the possibility it offered for development as a plurilateral mechanism including all the nuclear-weapon States, for the practical dismantling and destruction of nuclear armaments, undertaken in the pursuit of the elimination of nuclear weapons, is in jeopardy.

22. In the United Nations Millennium Declaration, the heads of State and Government resolved to strive for the elimination of weapons of mass destruction, in particular nuclear weapons, and to keep all options open for achieving this aim, including the possibility of convening an international conference to identify ways of eliminating nuclear dangers.

23. We are concerned by the continued retention of the nuclear-weapons option by those three States that operate unsafeguarded nuclear facilities and have not acceded to the Treaty on the Non-Proliferation of Nuclear Weapons, as well as their failure to renounce that option.

24. There has been progress in the further development of nuclear-weapon-free zones in some regions, and, in particular, the movement towards freeing the Southern Hemisphere and adjacent areas from such weapons. In this context, the ratification of the Treaties of Tlatelolco, Rarotonga, Bangkok and Pelindaba by all States of the region, and all concerned States is of great importance. They should all work together in order to facilitate adherence to the protocols to nuclear-weapon-free zone treaties by all relevant States that have not yet done so. States Parties to those treaties should be encouraged to promote their common objectives with a view to enhance cooperation among the nuclear-weapon-free zones and to working together via the proponents of other such zones. On the other hand, no progress has been achieved in the establishment of nuclear-weapon-free zones in the Middle East, South Asia and other regions.

IV. The Way Ahead

25. We remain determined to pursue, with continued vigour, the full and effective implementation of the substantial agreements reached at the 2000 NPT Review Conference. That outcome provides the requisite blueprint to achieve nuclear disarmament.

26. Multilaterally negotiated legally binding security assurances must be given by the nuclear-weapon States to all non-nuclear weapon States parties. The Preparatory Committee should make recommendations to the 2005 Review Conference on the modalities for immediate negotiations on this issue. Pending the conclusion of such negotiations, the nuclear-weapon States should fully respect their existing commitments in this regard.

27. The nuclear-weapon States must increase their transparency and accountability with regard to their nuclear weapons arsenals and their implementation of disarmament measures.

28. Further efforts by nuclear-weapon States to effectively reduce their nuclear arsenals unilaterally are required. Formalization by nuclear-weapon States of their unilateral declarations in a legally binding agreement including provisions ensuring transparency, verification and irreversibility is essential. Nuclear-weapon States should bear in mind that reductions of deployments are a positive signal but no replacement for the actual elimination of nuclear weapons.

29. Nuclear-weapon States should implement the NPT commitments to apply the principle of irreversibility by destroying the nuclear warheads in the context of strategic nuclear reductions and avoid keeping them in a state that lends itself to their possible redeployment. While deployment reduction, and reduction of operational status, give a positive signal, it cannot be a substitute for irreversible cuts and the total elimination of nuclear weapons.

30. Further reduction of non-strategic nuclear weapons should be a priority. Nuclear-weapons States must live up to their commitments. Reductions of non-strategic nuclear weapons should be carried out in a transparent and irreversible manner and to include reduction and elimination of non-strategic nuclear weapons in the overall arms reductions negotiations. In this context, urgent action should be taken to achieve:

- (a) further reduction of non-strategic nuclear weapons, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process;
- (b) further confidence-building and transparency measures to reduce the threats posed by non-strategic nuclear weapons;
- (c) concrete agreed measures to reduce further the operational status of nuclear weapons systems, and to
- (d) formalizing existing informal bilateral arrangements regarding non-strategic nuclear reductions, such as the Bush-Gorbachev declarations of 1991, into legally binding agreements.

31. Nuclear-weapon States must undertake the necessary steps towards the seamless integration of all five nuclear-weapon States into a process leading to the total elimination of nuclear weapons.
32. We underline the importance and urgency of signatures and ratifications to achieve the early entry into force of the CTBT without delay and without conditions. This gains additional urgency since the process of the installation of an international system to monitor nuclear weapons tests under the CTBT is more advanced than the real prospects of entry into force of the treaty. This is a situation not consistent with the idea of elaborating a universal and comprehensive test ban treaty. In the interim, it is necessary to uphold and maintain the moratorium on nuclear-weapon-test explosions or any other nuclear explosions pending entry into force of the CTBT. The strict observance of the CTBT's purposes, objectives and provisions is imperative.
33. The Conference on Disarmament should establish without delay an ad hoc committee to deal with nuclear disarmament.
34. The Conference on Disarmament should resume negotiations on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices taking into consideration both nuclear disarmament and nuclear non proliferation objectives.
35. The Conference on Disarmament, as the single multilateral negotiating forum, has the primary role in the negotiation of a multilateral agreement or agreements, as appropriate, on the prevention of an arms race in outer space in all its aspects. The Conference should complete the examination and updating of the mandate contained in its decision of 13 February 1992, and to establish an ad hoc committee as early as possible.
36. The international community must redouble its efforts to achieve universal adherence to the NPT and to be vigilant against any steps that would undermine its determination to prevent the proliferation of nuclear weapons. Those three States¹, which are not yet parties to the NPT, must accede to the Treaty as non-nuclear weapon States, promptly and without condition, and bring into force the required comprehensive safeguards agreements, together with additional model protocol, for ensuring nuclear non-proliferation, and to reverse clearly and urgently any policies to pursue any nuclear weapons development or deployment and refrain from any action that could undermine regional and international peace and security and the efforts of the international community towards nuclear disarmament and the prevention of nuclear weapons proliferation.
37. The Trilateral initiative between the IAEA, the Russian Federation and the United States must be implemented, and consideration should be given to the possible inclusion of other nuclear-weapons States.
38. Arrangements should be made by all nuclear-weapon States to place, as soon as practicable, fissile material no longer required for military purposes under IAEA or other relevant international verification.

¹ India, Pakistan and Israel.

39. International treaties in the field of nuclear disarmament and non-proliferation must be observed, and all obligations flowing from those treaties must be duly fulfilled.
40. All States should refrain from any action that could lead to a new nuclear arms race or that could impact negatively on nuclear disarmament and non-proliferation.

V. The Strengthened Review Process

41. The Preparatory Committee should deal with the procedural issues necessary to take its work forward but also with matters of substance as was decided in the 1995 and 2000 outcomes, and to ensure that the issues of substance deliberated upon are recorded in the factual summary of the Preparatory Committee.
42. The Preparatory Committee should substantively focus on nuclear disarmament so as to ensure that there is a proper accounting in the reports by States of their progress in achieving nuclear disarmament. Accountability will be assessed in the consideration of these reports that the States parties agreed to submit.
43. The Preparatory Committee should consider regular reports to be submitted by all States parties on the implementation of article VI and paragraph 4 (c) of the 1995 Decision. The strengthened review process envisioned in the 2000 NPT Final Document concerning the implementation of the Treaty and Decisions 1&2 as well as the Resolution on the Middle East adopted in 1995 should be fully implemented.
44. These reports should be submitted to each session of the Preparatory Committee. The reports on article VI should cover issues and principles addressed by the thirteen steps and include specific and complete information on each of these steps (*inter alia*, the number and specifications of warheads and delivery systems in service and number and specifications of reductions, dealing measures, existing holdings of fissile materials as well as reduction and control of such materials, achievements in the areas of irreversibility, transparency and verifiability). These reports should address current policies and intentions, as well as developments in these areas.
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Original: ENGLISH

**LETTER DATED 7 JANUARY 2003 FROM THE PERMANENT REPRESENTATIVE
OF THE NETHERLANDS TO THE CONFERENCE ON DISARMAMENT
ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON
DISARMAMENT TRANSMITTING A SUMMARY OF THE SECOND OPEN-ENDED
INFORMAL MEETING IN THE FRAMEWORK OF THE NETHERLANDS' FMCT-
EXERCISE, ON A TREATY BANNING THE PRODUCTION OF FISSILE MATERIAL
FOR NUCLEAR WEAPONS AND OTHER NUCLEAR EXPLOSIVE DEVICES, HELD
IN GENEVA ON 25 SEPTEMBER 2002**

I have the honor to forward to you a summary of the second open-ended informal meeting in the framework of the Netherlands' FMCT-Exercise on the issue of banning the production of fissile material for nuclear weapons and other nuclear explosive devices (FMCT).

This meeting was organized on Wednesday September 25, 2002, by the delegation of the Kingdom of the Netherlands to the Conference on Disarmament. The total number of participants in this meeting was well over 100. Over 50 countries attended this meeting as well as representatives from NGO's, some international organizations as well as the IAEA in Vienna.

The scope of an FMCT: a presentation by Tom Shea (IAEA)

At this meeting, Mr. Thomas Shea, head of the Trilateral Initiative Office of the Department of Safeguards of the International Atomic Energy Agency (IAEA) in Vienna, gave on behalf of the IAEA a presentation on the possible framework of a treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices (FMCT). A copy of his presentation is attached to this document.

Issues that were addressed in the presentation of Mr. Shea, include:

- what could an FMCT cover (scope, definitions, what kind of facilities);
- how could an FMCT be verified (declarations, verification);
- what exceptions for military use are to be made (naval propulsion and other non-explosive military applications);
- what other relevant elements need to be considered (organization, costs and legal elements like entry-into-force).

Issues raised in the discussion that immediately followed Mr Shea's presentation, included the scope of the verification regime of an FMCT, the financing of the verification regime of an FMCT, the issue of stockpiles (including the relevance of the Trilateral Initiative for an FMCT) and the relevance of an FMCT to prevent nuclear terrorism.

Scope of the verification regime of an FMCT

Regarding the scope of the verification regime of an FMCT, the discussion focused on the issue whether verification of an FMCT should apply to all states, or only to those states that are not prohibited under the NPT to produce and possess nuclear weapons (i.e. the five nuclear weapon states and those three states that are not a member to the NPT). Furthermore whether it should closely resemble the current system of IAEA-Safeguards for non-nuclear weapon states (INFCIRC/153 and INFCIRC/540) or separate verification regimes should be developed for the nuclear weapon states and the non-nuclear weapon states respectively.

The financing of the verification regime of an FMCT

The financing modalities of the verification regime are closely inter-linked with the scope of that regime, in particular the categories of facilities that should be covered by the verification regime. Options for financing that were mentioned in the discussion included were financing by those states that produce fissile material for nuclear weapons and other nuclear explosive devices or by all States Parties to the FMCT through the application of the UN scale of assessments or a comparable model.

An alternative model for the financing of the verification regime of the future organization that was mentioned in the discussion was based on a surcharge per kiloton nuclear energy produced.

The issue of stockpiles (including the relevance of the Trilateral Initiative) Regarding the issue of stocks of excess fissile material, it was recognized that the mandate for the FMCT-negotiations (the Shannon-mandate as contained in document CD/1299) is ambiguously formulated. In the discussion 3 options were raised: whether (a) the issue of stocks is more properly dealt with within the scope of the treaty, (b) through separate but supporting mechanisms (like the Trilateral Initiative), or (c) should not be dealt with at all within the framework of an FMCT. Regarding separate supporting mechanisms, it was discussed whether already existing mechanisms like the Trilateral Initiative (a framework between the IAEA, the Russian Federation and the United States on collective monitoring of the respective excess stockpiles) could for example be used as an alternative way to deal with this issue.

In this respect, the working paper of South Africa on a so-called baseline model for stocks of excess material (document CD/1671), was also mentioned during the discussion. In this working paper of South Africa, it is argued that including stocks of fissile material in the negotiations would be very difficult; not only from a political, but also from a practical point of view. Also based on their own experience, there appears to be a significant gap between the actual size of stocks and the quantity of fissile material that the NWS could be supposed to possess on the basis of their past production records.

The relevance of an FMCT to prevent nuclear terrorism

The last issue that was raised during the discussion that followed Dr. Shea's presentation, dealt with the relevance (or not) of an FMCT to prevent nuclear terrorism. It was widely felt that the contribution of an FMCT in this respect would be limited. Although an FMCT would provide additional opportunities for verification, the already existing conventions against terrorism, as well as the Convention on Physical Protection of Nuclear Materials were generally deemed to be more relevant in this respect.

I would be grateful, if you could issue this letter as well as the attachment to this letter as an official document of the Conference on Disarmament, and distribute it to all Member States of the Conference and non-member States participating in its work,

Yours Sincerely,

(Signed):

Chris C. Sanders
Ambassador
Permanent Representative of the Netherlands
to the Conference on Disarmament

LETTER DATED 12 MAY 2003 FROM THE PERMANENT REPRESENTATIVE OF THE NETHERLANDS TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A SUMMARY OF THE FOURTH OPEN-ENDED INFORMAL MEETING IN THE FRAMEWORK OF THE NETHERLANDS' FMCT-EXERCISE, ON A TREATY BANNING THE PRODUCTION OF FISSILE MATERIAL FOR NUCLEAR WEAPONS AND OTHER NUCLEAR EXPLOSIVE DEVICES, HELD IN GENEVA ON 4 APRIL 2003

I have the honor to forward to you a summary of the fourth open-ended informal meeting in the framework of the Netherlands' FMCT-Exercise on the issue of banning the production of fissile material for nuclear weapons and other nuclear explosive devices (FMCT). This meeting was organized on Friday April 4, 2003 by the delegation of the Kingdom of the Netherlands to the Conference on Disarmament.

The topic of this fourth meeting was the issue of stockpiles of fissile material for nuclear weapon purposes. At this meeting Ambassador Pablo Macedo, Deputy Permanent Representative of Mexico to the Conference on Disarmament, and Mr. Morten Bremer Maerli, Senior Researcher at the Norwegian Institute of International Affairs, gave introductions on this issue.

The total number of participants in this meeting was well over 100. Over 45 countries attended this meeting as well as representatives from 4 international organizations and 2 NGO's.

I would be grateful, if you could issue this letter as well as the attachment to this letter as an official document of the Conference on Disarmament, and distribute it to all Member States of the Conference and non-member States participating in its work.

Scope of the treaty

Bremer Maerli outlined that there are basically 4 different scope-variants regarding stocks of fissile material:

1. Full incorporation of stocks into the FMCT;
2. Partial stock incorporation into the FMCT;
3. Normative stock guidance within the FMCT;
4. Exclusion of stocks under an FMCT.

For each of these scope-variants Bremer Maerli outlined the advantages and disadvantages (see his presentation in attachment).

Some participants argued that stocks need to be part of the scope of a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices (FMCT). Otherwise, the FMCT would remain a non-proliferation instrument and would not address nuclear disarmament. In this respect it was argued that the issue of stocks arises mainly because it is felt that the issue of nuclear disarmament is not seriously addressed by the nuclear weapon states.

Other participants argued that an FMCT, even without stocks, would still be an important step since it would put a quantitative ceiling on the amount of fissile material. Next to the CTBT that puts a qualitative cap on the development of nuclear weapons by prohibiting testing, the FMCT will put a quantitative ceiling on the production of fissile material.

It was recognized that the mandate for the FMCT-negotiations (the Shannon-mandate as contained in document CD/1299) is ambiguously formulated. It was generally recognized that the issue of stocks should not be a pre-condition for the negotiations.

Definition of stocks of fissile material for nuclear weapon purposes

Apart from the scope of the treaty, the term "stocks" needs to be defined. Some participants noted that the term "stocks" at present in the discussion is used in a general way, leaving it unclear what is actually meant with the term.

Bremer Maerli outlined 8 different categories of stocks, in his presentation (see attachment):

1. Military direct use material in operational nuclear weapons and "pipelines";
2. Military direct use material held in reserve for military purposes;
3. Military direct use material withdrawn from dismantled weapons;
4. Military direct use material considered excess and designated for transfer into civilian use;
5. Military direct use material considered excess and declared for transfer into civilian use;
6. Military direct use material destined for or in naval nuclear reactors;
7. Direct use material currently in reactors or "pipelines" and storages;
8. Irradiated Highly Enriched Uranium (HEU) and Plutonium (Pu) in spent fuel from reactors, or in vitrified form for final disposal.

Actions undertaken by the nuclear weapon states as regards stocks of fissile material for nuclear weapon purposes

It was noted that at present some nuclear weapon states have already declared part of their stock as excess. Two of the five nuclear weapon states have put their excess stocks under EURATOM-safeguards. Other nuclear weapon states have already shut down some or all their fissile material production facilities. The United States and the Russian Federation have declared 34 m³ weapon grade plutonium and 540 m³ weapon grade uranium as excess stock and are in the process of down blending this excess stock. Furthermore the Trilateral Initiative of the Russian Federation, the United States and the International Atomic Energy Agency (IAEA), aims to develop a new IAEA-verification system for weapon-origin material designated as released from defense programs of both countries. IAEA-verification under the Trilateral Initiative is intended to promote international confidence that fissile material made subject by either of the two states to IAEA-verification remains irreversibly removed from nuclear weapon programs. The first phase of the Trilateral Initiative was completed by September 2002.

Physical protection, safety and disposition of stocks of fissile material for nuclear weapon purposes

Apart from an FMCT, some other conventions deal with aspects of fissile material, which could be relevant for future FMCT-negotiations. In the discussion were mentioned the Convention on the Physical Protection of Nuclear Material (CPPNM), the Convention on Nuclear Safety, as well as the Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

Yours Sincerely,

(Signed):

Chris C. Sanders
Ambassador
Permanent Representative of the Netherlands
to the Conference on Disarmament

Annex

Forth informal and open-ended meeting of the FMCT-Exercise of the Netherlands. Conference on Disarmament, Geneva, 04.04.2003.

A Fissile Material Cut-Off Treaty: Considerations on "Stocks"

Morten Bremer Maerli, mbrm@nust.no
Norwegian Institute of International Affairs

Norwegian Institute of International Affairs
Norsk Utenrikspolitisk Institutt

Outline

- The Importance of a Fissile Material Cut-Off Treaty (FMCT)
- The purpose and scope of an FMCT
- FMCT target states
- Defining "stocks"
- Some variations on FMCT "scopes"
- Stockpile control mechanisms and principles
- Summing up
- Further reading

Norwegian Institute of International Affairs
Norsk Utenrikspolitisk Institutt

The importance of an FMCT

- Capping the number of warheads possible to produce.
→ effective nuclear disarmament
- Excessive stockpiles, definitive risk of fissile materials in wrong (terrorist/state) hands. → non-proliferation
- Accountability in all nuclear weapon states
- Together with a CTBT, the single most important mechanism for building a control regime for states outside the NPT (states what will remain outside!)

Norwegian Institute of International Affairs
Norsk Utenrikspolitisk Institutt

The importance of an FMCT (cont.)

- Next natural step on multinational arms control agenda
- Only item in the list of 13 steps from the 2000 RevCon given a timeframe for completion, signalling the importance attached to the treaty by the NPT-states.
- Failure to implement an FMCT will inevitably harm the NPT in the longer-run.
- Just a reminder - without the NPT:
 - No legal nuclear obstacles to states
 - Military intervention, incl. pre-emptive strikes, most prominent alternative?

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The purpose and scope of a Fissile Material Cut-Off Treaty (FMCT)

- Set out in by two international decisions, both adopted by consensus:
 - a 1993 UN General Assembly (UNGA) resolution (48/751)
 - a 1995 decision by the CD to adopt what is known as the "Shannon mandate" (CD/ 1299)

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- Both decisions call for the negotiation of

"a non-discriminatory, multilateral and internationally effectively verifiable treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices".

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Mandate fairly clear on verification objectives

- However, the Shannon mandate does not specify options for the *scope* of the treaty.
- What to be covered by the treaty:
 - left for future discussions....

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Main dispute:

- Should an FMCT deal with existing unsafeguarded stocks (disarmament & non-proliferation) ?
- ... Or solely with future production (primarily non-proliferation, but re-enforcing nuclear status quo) ?

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FMCT target states

- Will affect states differently :
 - variance in nuclear fuel cycles
 - inventories of fissile material
- Non-nuclear weapon states under the NPT with comprehensive safeguards agreement :
 - De facto FMCT compliant

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- Target states: states without comprehensive safeguards agreements, primarily:

- Nuclear weapon states under the NPT
- Nuclear weapon states outside the NPT
- (Any breakout states)

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Scope of an FMCT: Stocks

- Center of concern: Direct use material:
 - Material that can be used for nuclear warheads without any further enrichment or reprocessing
- Includes: Highly enriched uranium and plutonium

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- Plutonium containing less than 80% Pu-238,
 - Weapons-grade
 - Reactor-grade (crude nukes)
 - Unirradiated MOX

- Highly enriched uranium
 - > 20% U-235 (but no ban on naval fuel?)

- U-233
 - Irradiating thorium (Th-232) in reactors

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Other (IAEA) categories

- "Special fissionable material"
- "Nuclear material"
- "Alternative nuclear material"
- (Tritium)

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Special fissionable material

- A broader category of material, containing *any* fissile isotopes
 - Includes *direct use material*, natural uranium (contains 0.7% U-235), LEU, irradiated HEU and spent fuel.
 - IAEA definition: "Pu-239, U-233, and uranium enriched in the isotopes U-233 and U-235, or any material containing one or more of the foregoing".

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Nuclear material

- Even broader category of material:
 - In addition to *special fissionable material*, this category also contains so-called *source materials*;
 - Materials that contain U-238 from which plutonium is bred when irradiated in a nuclear reactor.

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Alternative nuclear material

- Material that is capable of undergoing fission
 - Neptunium-237 and americium can be used for a nuclear explosion device.
 - Curium: potential nuclear weapon ingredient, although its use entails more severe radiological safety hazards.
 - At least one of the nuclear weapon states has successfully demonstrated a nuclear test explosion with an "alternative nuclear material"
- The separated stocks of all three isotopes are increasing worldwide, representing additional proliferation risks and safeguards challenges.

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Tritium

- Not a fissile material, but may undergo fusion. Used in modern warheads.
 - Tritium boosts the chain reaction by releasing fast neutrons in a fusion reaction with deuterium.
 - As a result, a larger fraction of the nuclear material is fissioned and more energy is released.
- Tritium has a short half-life (12.3 years). Regular replacement needed to maintain optimal yields.
- The United States has restarted its tritium production
- FMCT prohibition??

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Categories of HEU and plutonium (Based on Schaper, 1997)

1. Military direct use material in operational nuclear weapons and "pipelines"
2. Military direct use material held in reserve for military purposes
3. Military direct use material withdrawn from dismantled weapons
4. Military direct use material considered excess and designated for transfer into civilian use

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5. Military direct use material considered excess and declared for transfer into civilian use
6. Military direct use material destined for or in naval nuclear reactors.
7. Direct use material currently in reactors or "pipelines" and storages
8. Irradiated HEU and Pu in spent fuel from reactors, or in vitrified form for final disposal.

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Some variations of different FMCT scopes (based on Walker, Berkout, 1999)

1. Full incorporation of stocks into the FMCT
2. Partial stock incorporation into the FMCT
3. Normative stock guidance within the FMCT
4. Exclusion of stocks under an FMCT

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1) Full incorporation of stocks into the FMCT

- Comprehensive control, past and future production
- A set of states' stock obligations would have to be defined, with procedural/verification issues

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Full incorporation of stocks into the FMCT

- Pros:
 - Meet both disarmament and non-proliferation (NPT) goals
 - FMCT an integral step of nuclear disarmament
 - Accountability and transparency in all states
 - Global and regional security benefits likely
- Cons:
 - Costs, implementation
 - Huge NWS opposition (all NWS)
 - A non-starter ??

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2) Partial stock incorporation

- Focus on future production
- Some stockpile issues would be addressed, e.g.
 - safeguarding of excess material
 - commitment not to withdraw material from safeguards

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Partial stock incorporation

- Pros:
 - One-way reduction of military stocks
 - Possible NWS interest
 - Flexibility, allowing *some* unsafeguarded stocks:
 - Easier to attract NWS outside the NPT?
- Cons:
 - (Large) stocks unaccounted/unsafeguarded
 - Only limited non-proliferation benefits (transfers)
 - Only limited disarmament benefits

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3) Normative stock guidance within the FMCT

- Focus on future production
- The treaty *includes* reference to concerns about the stocks, expressing expectations that steps will be taken to address them:
 - Use preambular language
 - Articles enshrining stockpile principles and objectives
 - Outline important next steps
 - Periodic reviews of progress made in implementation

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Normative stock guidance within the FMCT

- Pros:
 - Probable one-way reduction of military stocks
 - NWS interest likely
 - Flexibility – get NWS outside the NPT onboard?
- Cons:
 - Fewer constraints, less control of NWS stock policies
 - Even less non-proliferation benefits (transfers)?
 - Even less disarmament benefits?

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4) Exclusion of stocks under an FMCT

- Focus on future production
- Stocks will not be addressed under the auspices of the treaty, but the treaty may include guiding principles
- Stocks excluded: Primarily non-proliferation

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Exclusion of stocks under an FMCT

- Special efforts would be taken (outside the treaty) to hasten progress on specific issues (e.g. physical protection, excess declarations, disposition), through unilateral, bilateral and multilateral initiatives.
- A set of principles would be established to guide states' stocks policies (e.g. irreversibility, minimization, transparency, protection and review)

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Exclusion of stocks under an FMCT

- Pros:
 - Broad NWS acceptance
 - Some control on NWS outside NPT
 - Some support for the NPT-process
 - Limited costs and implementation

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Exclusion of stocks under an FMCT

- Cons:
 - Reservoir of direct-useable material outside international control/safeguards
 - Limited transparency, accountability
 - No real limitation on number of nuclear warheads to be produced
 - Non-proliferation limitations: Transfers from NWS cannot be controlled.
 - Lost disarmament opportunity. Long-term impact on NPT?

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International stockpile control mechanisms

- **Safeguards**
 - Comprehensive (INFCIRC/153), Additional protocol (INFCIRC/540), Voluntary offer agreements (VOAs)
- **Convention on the Physical Protection of Nuclear Material (INFCIRC/274)**
 - Amendment (weak) under way
- **Trilateral: US, Russia, IAEA**
 - Safeguarding excess material
- **Bilateral (US-Russian) disposition agreements**
 - HEU deal, plutonium disposition agreement

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Stockpile control principles

- **Minimisation of stocks:**
 - End accumulation of unsafeguarded materials
 - Define military requirements/excess stocks
- **Irreversibility:**
 - Extend IAEA verification of non-military material
 - Extend HEU and Pu disposition (states/quantities)
 - Self-auditing and transparency (multilat.) declarations
- **Effective protection:**
 - Extend and strengthen physical protection standards
- **Review:**
 - Multinational, formalized review process for stocks (reductions)

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Summing up

- FMCT important next step in multinational arms control
- FMCT still on the agenda of leading nations
- But strong political, practical and financial constraints
 - Different schemes – different benefits!
 - Failure to implement an FMCT will harm the NPT
- Pragmatism needed!
 - Current political climate
 - Urgency of the task

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Summing up – pragmatic approach:

- Primary concern: Direct-useable material
- Full incorporation of stocks into the FMCT: obvious and important ideal, but unrealistic
- Best compromise: Focus on future production, but
 - With partial stock (declared excess) incorporation (2)
 - With expressed expectations about other stocks (3)
 - With a set of principles for states' stocks policies (4)
 - ... and a strong peer-review process – with sanctions

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Some words of wisdom...

"for both practical and political reasons, the regulatory situation in all countries, including the NWS, should be approached as if the world is preparing for total nuclear disarmament - whether or not that is a desirable or realistic prospect"

(Albright, Berkoul, Walker, 1996, p. 456)

-> An FMCT is key...

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Further reading:

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- Annette Schaper "A Treaty on the Cutoff of Fissile Material for Nuclear Weapons - What to cover? How to verify?", Peace Research Institute Frankfurt, Report no. 48, July 1997
- William Walker and Frans Berkoul, "Fissile Material Stocks: Characteristics, Measures and Policy Options", UNIDIR 99/8, 1999
- David Albright, Lauren Barbour, Corey Gay, Todd Lowery, "Ending the Production of Fissile Material for Nuclear Weapons: Background Information and Key Questions", The Institute for Science and International Security (ISIS) [www.isis-online.org/publications/fmct/primer/tableofcontents.html](http://isis-online.org/publications/fmct/primer/tableofcontents.html)
- Oxford Research Group: "The FMCT Handbook", February 2003
- Morten Bremer Maerli, "A Pragmatic Approach for Negotiating a Fissile Material Cut-Off Treaty", International Negotiation, Volume 6, Number 1, July, (2001). <http://internat.org/in/volumes/6/1/abstracts.html>

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CONFERENCE ON DISARMAMENT

CD/1707

26 May 2003

Original: ENGLISH

LETTER DATED 22 MAY 2003 FROM THE PERMANENT REPRESENTATIVE OF NEW ZEALAND ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE ENGLISH TEXT OF THE PAPER SUBMITTED BY NEW ZEALAND ON BEHALF OF THE NEW AGENDA COUNTRIES TO THE SECOND SESSION OF THE PREPARATORY COMMITTEE FOR THE 2005 REVIEW CONFERENCE OF THE PARTIES TO THE TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS

I have the honour to forward to you the English language version of the paper submitted by New Zealand on behalf of the New Agenda countries to the Second Session of the Preparatory Committee for the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons*.

I would be grateful if you would issue this paper as an official document of the Conference on Disarmament and distribute it to all member States and non-member participants of the Conference.

(Signed:)

Tim CAUGHLEY
Ambassador
Permanent Representative
to the Conference on

Disarmament

* Reproduced from previously issued document NPT/CONF.2005/PC.II/16 of 29 April 2003 as attached.

NEW AGENDA COALITION PAPER

Submitted by New Zealand

**on behalf of Brazil, Egypt, Ireland, Mexico, South Africa and Sweden
as members of the New Agenda Coalition (NAC)**

I. Background

1. In 1995, the State parties extended the Nuclear Non-Proliferation Treaty indefinitely and undertook to make every effort to achieve its universality. The Review Process of the Treaty was strengthened and Principles and Objectives to address the implementation of the Treaty were adopted. The Resolution on the Middle East was adopted as an integral part of the 1995 package.
2. In 1996, the Advisory Opinion of the International Court of Justice concluded unanimously that: "There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control."
3. The Final Document of the 2000 NPT Review Conference represents a positive step on the road to nuclear disarmament. In particular, nuclear-weapon States made the unequivocal undertaking to accomplish the total elimination of their nuclear arsenals and agreed on practical steps to be taken by them that would lead to nuclear disarmament. To this end, additional steps were necessary to improve the effectiveness of the strengthened review process for the Treaty.

II. Fundamental Principles

4. The participation of the international community as a whole is central to the maintenance and enhancement of international peace and stability. International security is a collective concern requiring collective engagement. Internationally negotiated treaties in the field of disarmament have made a fundamental contribution to international peace and security. Unilateral and bilateral nuclear disarmament measures complement the treaty-based multilateral approach towards nuclear disarmament. It is essential that fundamental principles, such as transparency, verification and irreversibility, be applied to all disarmament measures.
5. We reaffirm that any presumption of the indefinite possession of nuclear weapons by the nuclear-weapon States is incompatible with the integrity and sustainability of the nuclear non-proliferation regime and with the broader goal of the maintenance of international peace and security.
6. Irreversibility in nuclear disarmament, nuclear reductions, and other related nuclear arms control measures is imperative. A fundamental pre-requisite for promoting nuclear non-proliferation is continuous irreversible progress in nuclear arms reductions.

7. Each article of the Treaty is binding on the respective State parties at all times and in all circumstances. It is imperative that all States parties be held fully accountable with respect to the strict compliance of their obligations under the Treaty.
8. Further progress on disarmament must be a major determinant in achieving and in sustaining international stability. The 2000 NPT undertakings on nuclear disarmament have been given and implementation of them remains the imperative.
9. A nuclear-weapon-free world will ultimately require the underpinning of a universal and multilaterally negotiated legally binding instrument or a framework encompassing mutually reinforcing sets of instruments.

III. Developments since the 2000 NPT Review Conference

10. To-date there have been few advances in the implementation of the thirteen steps agreed to at the 2000 NPT Review Conference.
11. We remain concerned that in the post Cold War security environment, security policies and defence doctrines continue to be based on the possession of nuclear weapons. The commitment to diminish the role of nuclear weapons in security policies and defence doctrines has yet to materialise. This lack of progress is inconsistent with the unequivocal undertaking by nuclear-weapon States to achieve the total elimination of their nuclear arsenals.
12. In addition, we are deeply concerned about emerging approaches to the future role of nuclear weapons as a part of new security strategies.
13. The Conference on Disarmament has continued to fail to deal with nuclear disarmament and to resume negotiations on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices taking into consideration both nuclear disarmament and nuclear non-proliferation objectives. The expectations of progress that resulted from the 2000 NPT Review Conference have to date not been met.
14. Although implementation of the CTBT's international monitoring system has proceeded, the CTBT has not yet entered into force.
15. There are no indications that nuclear-weapon States have increased transparency measures.
16. Measures have been taken by one-nuclear weapon State to unilaterally reduce the operational status of its nuclear weapons systems. The Treaty on Strategic Offensive Reductions ("the Moscow Treaty") is but one step towards this goal.

17. To date, there is limited evidence of any further agreed measures to reduce the operational status of nuclear weapon systems

18. There is no sign of efforts involving all of the five nuclear weapon States in the process leading to the total elimination of nuclear weapons. On the contrary there are worrying signs of the development of a new generation of nuclear weapons.

19. We remain deeply concerned at the continuing possibility that nuclear weapons could be used. Despite the intentions of, and past achievements in, bilateral and unilateral reductions, the total number of nuclear weapons deployed and stockpiled still amounts to thousands.

20. We acknowledge that reductions in the numbers of deployed strategic nuclear warheads envisaged by the Moscow Treaty represents a positive step in defining the new relationship between the United States of America and the Russian Federation. We however question the Treaty's contribution to nuclear disarmament. The Treaty does not contain verification provisions, is not irreversible, and ignores non-operational warheads. Reductions in deployments and operational status of strategic nuclear warheads cannot substitute for irreversible cuts in, and the total elimination of, nuclear weapons.

21. There is concern that the abrogation of the Treaty on the Limitation of Anti-Ballistic Missile Systems (ABM) has brought an additional element of uncertainty to international security, has impacted negatively on strategic stability as an important factor contributing to and facilitating nuclear disarmament, and will have negative consequences on nuclear disarmament and non-proliferation. It could also have grave consequences for the future of global security and create apparent rationales for action based solely on unilateral concerns. Any action, including the development of missile defence systems, which could impact negatively on nuclear disarmament and non-proliferation, is of concern to the international community. We are concerned about the risk of a new arms race on earth and in outer space.

22. The achievements and the promise the bilateral START process held, including the possibility it offered for development as a plurilateral mechanism including all the nuclear-weapon States, for the practical dismantling and destruction of nuclear armaments, undertaken in the pursuit of the elimination of nuclear weapons, is in jeopardy.

23. In the UN Millennium Declaration, the Heads of State and Government resolved to strive for the elimination of weapons of mass destruction, in particular nuclear weapons, and to keep all options open to achieving this aim, including the possibility of convening an international Conference to identify ways of eliminating nuclear dangers.

24. We believe that the recent international debate in the United Nations Security Council, including statements made by its Permanent Members, on weapons of mass destruction, including nuclear weapons, underlined international concerns about the legitimacy, possession and possible use of weapons of mass destruction. These statements should provide a further impetus to international

efforts to de-legitimise all nuclear weapons and to hasten international efforts towards nuclear disarmament. These statements furthermore underline our basic belief that the only real guarantee against the use of any weapons of mass destruction anywhere, including nuclear weapons, is their complete elimination and the assurance that they will never be used or produced again.

25. Of particular concern has been the decision of the Democratic People's Republic of Korea to withdraw from the NPT and also its declared intention to restart the Yongbyon nuclear reactor, without IAEA safeguards. Leaving aside the circumstances that led to these decisions, the implications are grave and affect us all. Like the rest of the international community, the New Agenda supports dialogue over confrontation. We hope for an early, peaceful resolution of the situation, leading to the DPRK's return to full compliance with the Treaty's terms and we call on the DPRK to reconsider its decisions.

26. We are concerned by the continued retention of the nuclear weapons option by those three States – India, Israel and Pakistan – that operate unsafeguarded nuclear facilities and have not acceded to the NPT, as well as at their failure to renounce that option.

27. The continued possession of nuclear weapons or the retention of the nuclear weapons option by some States exacerbates the possibility of these weapons falling into the hands of terrorists. The only complete defence against this prospect is the elimination of nuclear weapons and the assurance that they will never be produced again.

28. There has been further progress in establishing nuclear-weapon-free zones in some regions. We welcome Cuba's accession as a State Party of both the NPT and the Tlatelolco Treaty, which makes the regime of the nuclear-weapon-free zone in Latin America and the Caribbean complete. We also welcome the endeavours of the five Central Asian States to establish a nuclear-weapon-free zone in that region and trust that these efforts will add further impetus to the establishment of nuclear-weapon-free zones in other parts of the world, including the Middle East and South Asia. Progress continues towards freeing the Southern Hemisphere and adjacent areas from such weapons. In this context, the ratification of the Treaties of Rarotonga, Bangkok and Pelindaba by all States of the region, and all concerned States is of great importance. They should all work together in order to facilitate adherence to the protocols to nuclear-weapon-free zone treaties by all relevant States that have not yet done so. States Parties to those treaties should be encouraged to promote their common objectives with a view to enhancing co-operation among the nuclear-weapon-free zones and to working together with the proponents of other such zones.

IV. The Way Ahead

29. We remain determined to pursue, with continued vigour, the full and effective implementation of the substantial agreements reached at the 2000 NPT Review Conference. That outcome provides the requisite blueprint to achieve nuclear disarmament.

30. Multilaterally negotiated legally binding security assurances must be given by the five nuclear-weapon States to all non-nuclear weapon States parties. The Final Document of the 2000 Review Conference calls upon the Preparatory Committee to make recommendations to the 2005 Review Conference on security assurances. Pending the conclusion of such negotiations, the five nuclear weapon States should fully respect their existing commitments in this regard.

31. The nuclear-weapon States must increase their transparency and accountability with regard to their nuclear weapons arsenals and their implementation of disarmament measures.

32. Further efforts by nuclear-weapon States to effectively reduce their nuclear arsenals unilaterally are required. Formalisation by nuclear-weapon States of their unilateral declarations in a legally binding agreement including provisions ensuring transparency, verification and irreversibility is essential. Nuclear-weapon States should bear in mind that reductions of deployments are a positive signal but no replacement for the actual elimination of nuclear weapons.

33. Nuclear-weapon States should implement the NPT commitments to apply the principle of irreversibility by destroying the nuclear warheads in the context of strategic nuclear reductions, and avoid keeping them in a state that lends itself to their possible redeployment. While deployment reduction, and reduction of operational status sends a positive signal, it cannot be a substitute for irreversible cuts and the total elimination of nuclear weapons.

34. Further reduction of non-strategic nuclear weapons should be a priority. Nuclear-weapon States must live up to their commitments. Reductions of non-strategic nuclear weapons should be carried out in a transparent and irreversible manner and to include reduction and elimination of non-strategic nuclear weapons in the overall arms reduction negotiations. In this context, urgent action should be taken to achieve:

- i. further reduction of non-strategic nuclear weapons in a transparent, verifiable and irreversible manner, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process;
- ii. further confidence-building and transparency measures to reduce the threats posed by non-strategic nuclear weapons. These measures should include the exchange of data on holdings and status of non-strategic nuclear weapons, safety provisions, types of weapons, yields, ranges of their designated delivery systems, distribution by region and weapons elimination;
- iii. concrete agreed measures to reduce further the operational status of nuclear weapons systems so as to reduce the risk of use, pre-emptive or accidental, of non-strategic nuclear weapons;

- iv. formalising existing informal bilateral arrangements, initiatives and declarations regarding non-strategic nuclear reductions, such as the Presidential Nuclear Initiatives of 1991/92, into legally binding agreements;
- v. prohibiting, as a first step, those types of non-strategic nuclear weapons that have already been removed from the arsenals of some nuclear-weapon States and the development of transparency mechanisms for the verification of the elimination of these weapons, as well as an undertaking not to increase the number or types of non-strategic nuclear weapons deployed; and
- vi. enhancement of security and physical protection measures for the transport and storage of non-strategic nuclear weapons, their components and related materials.

35. Nuclear-weapon States must undertake the necessary steps towards the seamless integration of all five nuclear-weapon States into a process leading to the total elimination of nuclear weapons.

36. We underline the importance and urgency of signatures and ratifications to achieve the early entry into force of the CTBT, without delay and without conditions, and in the context of the progress in implementing the international system to monitor nuclear weapons tests under the Treaty. In the interim, it is necessary to uphold and maintain the moratorium on nuclear-weapon-test explosions or any other nuclear explosion pending entry into force of the CTBT. The strict observance of CTBT purposes, objectives and provisions is imperative.

37. The Conference on Disarmament should establish without delay an ad hoc committee to deal with nuclear disarmament.

38. The Conference on Disarmament should resume negotiations on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices taking into consideration both nuclear disarmament and nuclear non-proliferation objectives.

39. The Conference on Disarmament, as the single multilateral negotiating forum, has the primary role for the negotiation of a multilateral agreement or agreements, as appropriate, on the prevention of an arms race in outer space in all its aspects. The Conference should complete the examination and updating of the mandate contained in its decision of 13 February 1992, and to establish an ad hoc committee as early as possible.

40. The international community must redouble its efforts to achieve universal adherence to the NPT and to be vigilant against any steps that would undermine the determination of the international community to prevent the proliferation of nuclear weapons. Those three States, which are not yet parties to the NPT, must accede to the Treaty as non-nuclear weapon States, promptly and without condition, and bring into force the required comprehensive safeguards agreements, together with

Additional Model Protocol, for ensuring nuclear non-proliferation, and to reverse clearly and urgently any policies to pursue any nuclear weapons development or deployment and refrain from any action that could undermine regional and international peace and security and the efforts of the international community towards nuclear disarmament and the prevention of nuclear weapons proliferation.

41. The Trilateral initiative between IAEA the Russian Federation and the United States must be implemented and consideration should be given to the possible inclusion of other nuclear-weapon States.

42. Arrangements should be made by all nuclear-weapon States to place, as soon as practicable, fissile material no longer required for military purposes under IAEA or other relevant international verification.

43. International treaties in the field of nuclear disarmament and non-proliferation must be observed and all obligations flowing from those treaties must be duly fulfilled.

44. All States should refrain from any action that could lead to a new nuclear arms race or that could impact negatively on nuclear disarmament and non-proliferation.

45. We remain gravely concerned at heightened tensions in the Middle East and Asian regions. We renew our support for the establishment of a Middle East zone free of nuclear weapons including other weapons of mass destruction. In this regard, we note that all states of the region with the exception of Israel are States Parties to the NPT and call upon Israel to accede to the Treaty as soon as possible and to place all of its nuclear facilities under comprehensive IAEA safeguards. We also renew our support for the establishment of nuclear weapons free zones in Central Asia and South Asia and in this context, urgently call on India and Pakistan to pull back from their aspirations to nuclear weapons and to accede to the Treaty without condition.

V. The Strengthened Review Process

46. The Preparatory Committee should continue to deal with the procedural issues necessary to take its work forward but also with matters of substance as was decided in the 1995 and 2000 decisions, and to ensure that the issues of substance deliberated upon are recorded in the factual summary of the Preparatory Committee.

47. The Preparatory Committee should substantively focus on nuclear disarmament so as to ensure that there is a proper accounting in the reports by States of their progress in achieving nuclear disarmament. Accountability will be assessed in the consideration of these reports that the States parties agreed to submit.

48. The Preparatory Committee should continue to consider regular reports to be submitted by all States Parties on implementation of Article VI and paragraph 4 (c) of the 1995 Decision. The

strengthened review process envisioned in the 2000 NPT Final Document concerning the implementation of the Treaty and Decisions 1 and 2 as well as the Resolution on the Middle East adopted in 1995 should be fully implemented.

49. These reports should be submitted to each session of the Preparatory Committee. The reports on Article VI should cover issues and principles addressed by the thirteen steps and include specific and complete information on each of these steps (*inter alia*, number and specification of warheads and delivery systems in service and number and specifications of reductions, de-alerting measures, existing holdings of fissile materials as well as reduction and control of such materials, achievements in the areas of irreversibility, transparency and verifiability). These reports should address current policies and intentions, as well as developments in these areas.

50. The States parties need to better utilise the opportunity of the preparatory meetings to make further substantive progress in the implementation of the Treaty and the strengthened review process and to interact substantively on contributions made.

51. The Review Process should continue to be strengthened.

Original: ENGLISH

**LETTER DATED 13 JUNE 2003 FROM THE PERMANENT REPRESENTATIVE
OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND TO
THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE
SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE TEXT OF A
WORKING PAPER SUBMITTED TO THE SECOND SESSION OF THE
PREPARATORY COMMITTEE FOR THE 2005 REVIEW CONFERENCE OF THE
PARTIES TO THE TREATY ON THE NON-PROLIFERATION OF NUCLEAR
WEAPONS HELD IN GENEVA FROM 28 APRIL TO 9 MAY 2003**

I have the honour to forward to you the English language version of a working paper submitted by the United Kingdom of Great Britain and Northern Ireland to the Second Session of the Preparatory Committee for the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons*.

I would be grateful if you would issue this paper as an official document of the Conference on Disarmament and distribute it to all member states and non-member participants of the Conference.

(Signed):

David Broucher
Ambassador

Permanent Representative of the United Kingdom of
Great Britain and Northern Ireland

* Reproduced from previously issued document NPT/CONF.2005/PC.II/WP.1 of 23 April 2003 as attached.

Verification of nuclear disarmament: first interim report on studies into the verification of nuclear warheads and their components

Working paper submitted by the United Kingdom of Great Britain and Northern Ireland

Introduction

1. At the 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons the United Kingdom identified three areas relevant to nuclear arms control measures, including, ultimately, the global elimination of nuclear weapons. These were the ability to verify:

- i. that States are not testing nuclear weapons or other nuclear explosive devices;
- ii. that States are not producing fissile material for nuclear weapons or other nuclear explosive devices;
- iii. reductions and dismantlement of nuclear weapons and warheads in any State that might have produced or otherwise acquired them, and disposition of the fissile material arising.

2. The United Kingdom is well known for its long-standing support of international efforts being made in the first two of these areas. The United Kingdom contributed significantly to the negotiation of a Comprehensive Nuclear-Test Ban Treaty and it has ratified the Treaty, being, jointly with France, the first of the Nuclear Weapon States to do so. It fully supports the efforts being made by the Preparatory Commission of the Comprehensive Nuclear-Test Ban Treaty Organisation in Vienna to develop and establish an effective verification regime for this Treaty - for example, by conducting research into events-screening methods, providing technical and other experts at appropriate meetings, attending workshops and contributing to the debate on the civil and scientific benefits of verification systems. The United Kingdom also supports the work of the International Atomic Energy Agency, including its work on safeguards. The United Kingdom continues to support negotiations on a Fissile Material Cut-Off Treaty and announced in 1995 that it had ceased the production of fissile material for explosive purposes. The purpose of this paper, therefore, is to provide information about the work in the third area, which is particularly relevant to the 13th "practical step" as set out in the NPT 2000 Review Conference Final Document, Article VI, paragraph 15.

The United Kingdom Programme

3. At the 2000 Review Conference, the United Kingdom announced that it had just commenced a programme to consider technologies that could be used in the verification of any future arrangement seeking to reduce and ultimately eliminate stockpiles of nuclear weapons. The programme includes work on:

- the authentication of warheads and their components, i.e. establishing that an item declared to be a nuclear warhead or a component from a nuclear warhead is consistent with those declarations;
- the dismantlement of warheads and their components;
- the disposition of the fissile material arising, to ensure that it can no longer be used in nuclear weapons or other explosive nuclear devices; and
- the monitoring of nuclear complexes.

4. Initial studies into some of these areas are being conducted at the United Kingdom's Atomic Weapons Establishment (AWE), Aldermaston.¹ The United Kingdom intends to present the consolidated findings of these at the 2005 Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons. However, following the interest shown at the 2002 Preparatory Committee meeting, the United Kingdom has decided to give an interim report on some aspects of the work conducted to-date, principally on the technical approaches potentially applicable to the authentication of nuclear warheads and their components. The United Kingdom's work to date has focused on warhead authentication, because this will almost certainly be the most technically challenging verification task arising from any potential arrangements to control nuclear warheads directly.

Technical approaches to Authentication

5. Technical approaches to authentication could rely on identifying characteristic "signatures" associated with nuclear warheads. Alternatively, or in parallel, the establishment of provenance and subsequent maintenance of a robust chain of custody could also be used to good effect. Nuclear warheads have various signatures. Passive and active radiation signatures are likely to contain the most information about them and have therefore been an important subject of the United Kingdom's work to date.

6. All nuclear warheads contain the fissile isotopes of plutonium or uranium, and these all emit radiation, either spontaneous neutron or gamma radiation. Depending on their energies, and also the amount of shielding (both by the item itself or by additional external shielding), this radiation can be detected passively and externally to the nuclear device. By measuring passively these "radiation signatures" valuable deductions can be made about the existence, type, distribution and quantity of the radioactive materials present within the item under examination. The detection and identification of such radiation therefore offers a step in the process of authenticating or disproving that an object is a nuclear warhead.

7. Nuclear warheads may also contain components made of, or containing, various low atomic number elements such as, for example, deuterium, tritium and beryllium. These do not give off characteristic radiation signatures which can be passively detected and measured. But when

¹ Research has concentrated on the unique aspects of warhead verification in the warhead complex. However, it is recognised that there is much experience in other areas that may contribute to future treaty verification, e.g. work related to IAEA and Euratom Safeguards, and in the context of the United States-Russian Federation-IAEA Trilateral initiative.

actively irradiated by gamma or X-rays, some of these elements can undergo various reactions resulting in the emission of neutrons. These neutrons can then be detected externally to the warhead using simple detectors, and, if some energy resolution is applied, can be used to indicate the presence of some specific elements and hence to increase confidence that the object under consideration is a nuclear warhead.

Studies conducted to date

8. During the first three years of the research programme the radiation signatures from a number of United Kingdom nuclear warheads, both those recently decommissioned (WE1772 and Chevaline3) and those in-service (Trident), have been examined using both passive and active techniques.

9. The items investigated have included:

- WE177 primary and secondary sub-assemblies in containers;
- Chevaline Re-entry Bodies (ReB) in various configurations e.g. direct, close access or uncontained and in various containers;
- Chevaline ReBs in storage containers through earth mounded magazines and metal doors;
- Chevaline primary and secondary sub-assemblies in various containers;
- A Trident Re-entry Body assembly (RBA) in a storage container;
- Trident primary and secondary sub-assemblies in various containers.

10. Different approaches have been adopted for passively detecting and measuring radiation from either the warheads or their components. These have included low and high resolution gamma ray spectroscopy and time-correlated neutron spectroscopy. Active interrogation techniques have included using X-radiation to determine the presence of low atomic number elements in warheads or their components. The experimental work on both passive and active measurements has been supplemented by modelling/computer calculation.

Conclusions from the Technical Authentication work conducted to date

11. The interpretation of the measurements made during this programme is difficult and often requires detailed knowledge or understanding of the relevant nuclear warhead designs. Much of this information is sensitive and classified and thus detailed conclusions cannot be revealed fully. Nevertheless, the studies to date suggest that:

2 WE177 was a free-fall nuclear bomb or nuclear depth charge deployed by the Royal Air Force and the Royal Navy respectively.

3 Chevaline was the nuclear warhead for the Royal Navy's submarine-deployed Polaris missile system.

- fissile material in a number of different types of nuclear warheads or nuclear warhead components can be detected externally using relatively simple instrumentation;
- detection can be made of a nuclear warhead in a number of locations such as in storage and various containers;
- in many instances detection requires access close to the item, often of the order of a few metres;
- the number of warheads inside containers can be assessed;
- in some cases isotopic composition, fissile material mass, and some geometrical dispositions of nuclear materials can be estimated using high resolution spectroscopic techniques;
- it may be possible to "reverse engineer" design information from raw radiometric data, which means that great caution would need to be exercised in using technical transparency technology within any dismantlement verification arrangements;
- X-ray interrogation of components is a technique that could be used to verify non-fissile strategic materials often found in nuclear warheads, but requires further investigation.

12. Overall the information obtained so far should be of significant value in discussing verification arrangements for any decommissioning of nuclear warheads that may be required by some future Treaty. However, in developing technologies and technical approaches applicable to such arrangements, consideration will need to be given to how far such instruments and information are sensitive from non-proliferation and national security points of view.

Other verification aspects of the United Kingdom's work

13. As well as authentication, the United Kingdom is considering other aspects of verification, such as chain of custody, provenance, and managed access techniques.

14. The technical approaches to authentication would need to be carefully supported by verifying the maintenance of the chain of custody of warheads and their components and materials, during the decommissioning, dismantlement, demilitarisation and disposition sequence. Maintaining an adequate chain of custody of key items and materials through these processes would also be a demanding task. The work conducted so far has included conceptual studies relating to tags and seals, and has considered how various signatures could play a role.

15. A potential alternative or addition to authentication would be to establish the provenance of an item, to build confidence that an item comes from its declared origin. Approaches to establishing the provenance of an item could include measures to establish that it has come from place that supports the declaration, for example from a submarine returning from deployment to base. This could be achieved, through inspection or remote monitoring, by tagging and then tracking the item from such a point through the remainder of the processes. Increasing confidence about provenance could also involve inspection of manufacturing, service deployment, and transport records, as well as any authentication activities.

16. As these approaches might require the presence of an international verification team, the United Kingdom has also examined managed access processes that could allow such a team to enter sensitive nuclear facilities, so as not to reveal sensitive information. As part of this study the United Kingdom conducted an exercise at its nuclear weapons' assembly and disassembly facility at the Atomic Weapons Establishment, Burghfield in order to examine representative managed access arrangements for such a sensitive facility. Making arrangements to allow access for a verification team into warhead disassembly facilities is likely to be difficult. Considerable effort would be needed to overcome the formidable challenge of enabling any such access without compromising sensitive information.

The future

17. The United Kingdom is continuing to fund this work through its Ministry of Defence through to the year 2005. The aim is to continue to develop an information and knowledge base of technologies potentially applicable to the verification of any international arrangement for the decommissioning and dismantlement of nuclear warheads and the disposition of any resulting surplus material. It is our intention to produce another interim report at the 2004 Preparatory Committee meeting and a consolidated report on our work at the 2005 NPT Review Conference.

Original: ENGLISH

**LETTER DATED 15 AUGUST 2003 FROM THE PERMANENT REPRESENTATIVE
OF JAPAN TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE
SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE TEXT OF
THE WORKING PAPER ON A TREATY TO BAN THE PRODUCTION OF FISSILE
MATERIAL FOR NUCLEAR WEAPONS AND OTHER NUCLEAR EXPLOSIVE
DEVICES**

I have the honour to forward herewith the text of the *Working Paper on a Treaty to Ban the Production of Fissile Material for Nuclear Weapons and Other Nuclear Explosive Devices* issued to the Conference on Disarmament on 14 August 2003 by the Japanese Delegation.

For the past decade, the FMCT has been the priority in multilateral nuclear disarmament and non-proliferation for the international community and will be more so in the future due to the growing threat of proliferation of weapons of mass destruction to States and non-state actors. Japan has been doing its utmost to promote this priority issue, and we hope that this working paper will provide a structure to facilitate understanding on related issues and provide a useful format for multilateral debate.

I would be very grateful if this working paper could be issued as an official document of the Conference on Disarmament and distributed to the delegations of all member States of the Conference, as well as non-member States participating in its work.

(Signed): Kuniko INOBUCHI, Ph.D.,
Ambassador and Permanent Representative of Japan
to the Conference on Disarmament

Annex

Working Paper on a Treaty to Ban the Production of Fissile Material for Nuclear Weapons and Other Nuclear Explosive Devices

Submitted by Japan

I. Introduction

1. The Treaty to ban the production of fissile material for nuclear weapons and other nuclear explosive devices (the FMCT) has been the priority for the past decade in multilateral nuclear disarmament and non-proliferation and in multilateral arms control fora as a whole. It still remains the priority despite a sea change in the international security and political landscape and will be more so due to the growing threats of proliferation of weapons of mass destruction to States and non-state actors such as terrorists.

2. The FMCT will represent a significant step forward in the promotion of nuclear disarmament. A conclusion of the FMCT will be an essential building block towards the total elimination of nuclear arsenals. The FMCT will also contribute to the prevention of nuclear proliferation by banning globally the production of fissile materials for nuclear weapons and enhancing transparency and accountability in the management of such material through its verification system.

3. The international community has, for the past decade, expressed its ardent desire for negotiations on many occasions and in many forums. Examples include:

4. The UN General Assembly Resolution A/RES/48/75/L adopted in December 1993 which recommended “the negotiation in the most appropriate international forum of a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices.”

5. The “Principles and Objectives for Nuclear Disarmament and Non-Proliferation” adopted at the 1995 Nuclear Non-Proliferation Treaty (NPT) Review and Extension Conference, which called for the immediate commencement and early conclusion of negotiations on the FMCT; this was widely regarded as part of a political bargaining process between nuclear-weapon States and non-nuclear-weapon States, when the latter abandoned the nuclear option forever as a means for national security;

6. The Final Document adopted at the 2000 NPT Review Conference which contained the “immediate commencement of negotiations” on the FMCT “with a view to their conclusion within five years” as one of the thirteen practical steps for systematic and progressive efforts to implement Article VI of the NPT and paragraph 3 and 4(c) of the 1995 Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament”;

7. Annual consensus resolutions of the United Nations General Assembly since 2000 urging the Conference on Disarmament (CD) to agree on a program of work that includes FMCT negotiations; and

8. The Shannon Report (CD/1299), which included a mandate to negotiate a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices, and was adopted by the CD in March 1995. The CD actually commenced negotiations in 1998. Negotiations, however, were too short-lived to reach any tangible outcome.

9. The CD is still unable to start FMCT negotiations despite the political commitment continuously shown by the international community over the past decade, including those above-mentioned. This fact puts into question the relevance and usefulness of the CD as the only global forum to negotiate multilateral disarmament treaties. It is also a negative factor for the regime of the NPT.

10. The purpose of this paper is primarily to structure discussion on the FMCT by categorizing various issues according to the following items: (1) scope, (2) technical issues including verification and (3) organizational and legal issues. Individual issues can be identified through surveying the debate that has been held informally (and officially to a very limited extent) on the FMCT. Structuring and categorization of the issues will facilitate understanding on them, provide a useful format for future multilateral debate and thereby contribute to enhancing the level of discussion.

II. Scope

Existing Stocks

11. Future negotiators will have to define the scope of the FMCT. The best way to handle the question of existing stocks effectively is to start negotiations based on the Shannon report (CD/1299), which contains a mandate, but avoids precluding any delegation from raising the issue for consideration in the negotiations.

12. The issue of past production is arising from political will to make the FMCT more effective by enhancing transparency, or promoting reduction, of existing stocks of fissile material for nuclear weapons. Thus, this question is a very controversial part of the entire debate and requires thorough examination.

13. Various suggestions have been made in the past on the modality to deal with the issue of stocks. Theoretically, there are several options, ranging from the total exclusion of existing stocks from the FMCT to the inclusion of legally binding provisions to eliminate them. As a middle way, Canada, for example, proposed in its working paper (CD/1578) "a separate but parallel process" to deal with this matter. Also, South Africa proposed in its working paper (CD/1671) "to ensure irreversibility" of material declared as excess by placing such material under a special verification arrangement until it becomes of a less sensitive form. Voluntary confidence-building measures with respect to the stocks may be considered to enhance transparency. Another interesting option would be to make such provisions in the FMCT, whether in the preamble or in the body, so as to keep open the way for a more substantive exercise to be conducted in the future.

14. Most importantly, deliberations on *future production* should be conducted without being linked to the issue of existing stocks, because such a linkage would only complicate the debate. Any tactics to link the two issues will unnecessarily prolong negotiations and therefore will not be useful, but rather harmful, to the entire negotiation process.

15. Japan is, at this stage, open on this matter to any suggestions that are conducive to further nuclear disarmament and non-proliferation and also to the facilitation of the FMCT negotiation process.

Fissile Material for Peaceful Purposes

16. In relation to the scope, one view is that fissile material for the peaceful use of nuclear energy should be included in the scope of the prohibition under the FMCT. Japan neither does, nor will, accept such an argument because the negotiating mandate is crystal clear in defining the objective of the FMCT as the banning of the production of fissile material for nuclear weapons or other nuclear explosive purposes. Japan opposes reopening this question, already settled in the negotiating mandate, because such a move would only complicate negotiations. Safeguarded peaceful uses of nuclear energy do no harm to the purpose of nuclear non-proliferation and disarmament.

Examination of Fissile Material and Other Nuclear Materials

17. Defining “fissile material” and other nuclear materials is of essential importance in determining the scope of the FMCT. The term “fissile material” is not used in the IAEA safeguards system, and therefore it is the right and the task of negotiators of the FMCT to decide on how to define this term.

18. Nonetheless, deliberations must, to a large extent, benefit from the experiences of the IAEA in its safeguards system. Nuclear materials that are subject to International Atomic Energy Agency (IAEA) safeguards comprise two mutually exclusive categories: special fissionable materials and source materials. According to the IAEA Statute, “special fissionable material” is mainly comprised of plutonium-239, uranium-233, and uranium enriched in the isotopes 235 or 233.

19. Two transuranic elements, neptunium and americium, have fissionable capabilities. The Board of Governors of the IAEA indicated that some controlling measures might have to be applied to these two materials. In this regard, past discussions in the IAEA fora should be carefully followed.

20. Tritium is used as a booster for thermonuclear weapons and is therefore essential to increase the yield of warheads. However, tritium is neither a fissile material nor a nuclear material, and does not explode alone. The FMCT should focus on fissile material that is indispensable for the manufacture of nuclear weapons and other nuclear explosive devices.

21. Thorium is a fertile material that can be converted to uranium-233. However, thorium itself is not directly usable for the manufacture of nuclear weapons.

III. Verification System

22. As for the verification system of the FMCT, two approaches, comprehensive and focused, have been proposed and discussed extensively. Although there is no precise understanding on these ideas and there are some variations on each, the comprehensive approach is generally understood to be a verification system covering all nuclear fuel cycle facilities and not only fissile material, but also other nuclear materials. On the other hand, the focused approach concentrates on enrichment and reprocessing facilities and fissile material in downstream facilities. This latter approach may cover R&D laboratories, including hot cells with a capability for the separation of fissile material.
23. With regard to the verification system, whether a comprehensive approach should be taken or a focused approach will be an optimum solution is an important but difficult question. In order to find an answer to this question, it will be necessary to consider factors such as security benefits, confidentiality, effectiveness of verification and cost-efficiency.
24. The negotiators will also be able to benefit greatly from the experiences of the IAEA in the consideration of possible key components of a FMCT verification system. The scope of declarations and routine inspections will be discussed in the light of the examinations of fissile material. The issue of non-routine inspections is important because such inspections are one means to detect undeclared activities.
25. The IAEA Additional Protocol (INFCIRC 540) has already introduced verification arrangements (expanded declaration and complementary access) for the detection of undeclared activities, and such a set of measures should be considered as one of the pillars of verification.
26. It is basically considered that IAEA safeguards measures provided by both the Comprehensive Safeguards Agreement and the Additional Protocol will provide a good basis for the considerations of a future verification system for "banning the production of fissile material for nuclear weapons or other nuclear explosive devices." Therefore, additional obligations should not, in principle, be imposed on non-nuclear-weapon States which adopt both the Comprehensive Safeguards Agreement and the Additional Protocol.
27. FMCT verification will also deal with military facilities that have been producing fissile material for the manufacture of nuclear weapons, whether exclusively for such purposes or for dual purposes with non-proscribed purposes. IAEA Safeguards are not applied to such facilities. The concept of managed access will be relevant in order to ensure that the issue of confidentiality be duly addressed, particularly with respect to such military or dual-use facilities.
28. Reactor fuel for naval vessels, including military ones, is for non-explosive purposes, and therefore the production of such fuel should not be prohibited. However, difficulties lie in the verification of non-diversion of such material to explosive purposes because confidentiality of the production process of fuel for military vessels is so high that the normal verification approach may not be applicable.

Other Verification Issues

29. Another question is whether or not the FMCT verification should also be tasked to ensure irreversibility with respect to closed-down reprocessing or enrichment facilities for weapon purposes and to fissile material declared as excess.

IV. Organization and Legal Issues

Future Organization

30. The FMCT requires a body to implement verification. There is an advantage to using existing expertise and knowledge of the IAEA, and its robust infrastructure, including administration and equipment of the IAEA. Best utilization of the already existing expertise and infrastructure will save administrative costs and reduce financial burdens on States parties. In any circumstances, the relationship between the implementing organization for the FMCT and the IAEA should be clearly defined.

The Entry-Into-Force Clause

31. The entry-into-force clause is a sensitive issue. Lessons can be learned from the history of the CTBT that has a very high requirement for entry-into-force. At the same time, ratifications by the recognized five nuclear weapon States and those States non-party to the NPT are essential for the operation of the FMCT.

Other Provisions

32. The FMCT should also have provisions, such as (a) amendment, (b) withdrawal, (c) review process, (d) depositary, (e) accession and (f) languages, as do other multilateral arms control conventions and treaties. Depending upon the prospective for an early entry into force of the FMCT, provisions regarding arrangements before the Treaty enters into force, such as hosting facilitating entry-into-force conferences may also be included in the Treaty provisions. Financial arrangements should also be discussed.

V. Conclusion

33. Given the diversity and complexity of the issues of the FMCT, negotiations require extensive technical expertise as well as difficult political judgements. It is an urgent priority to resolve the stalemate in the CD and to commence FMCT negotiations with a view to their conclusion within five years.

34. The structuring of the debate on the FMCT can be categorized into three items, namely scope, technical deliberations including verification issues and organizational and legal issues. And, for the sake of future negotiation, these can be factorized and further recomposed to: (a) group for legal and political issues; and (b) group for technical issues.

35. The Shannon mandate is clear in seeking a treaty to prohibit the production of fissile material for nuclear weapons and other nuclear explosive devices and in precluding fissile

material for peaceful purposes from the scope of the prohibition. This question should not be reopened.

36. Negotiations should involve substantial technical deliberations focused on *future production*. Through such deliberations, a verification system will be elaborated. Any tactics to link the banning of future production with the issue of existing stocks will unnecessarily prolong negotiations and is harmful to nuclear non-proliferation and disarmament. An argument that technical issues cannot be dealt with until the scope of the Treaty is determined is not viable.

37. With regard to the verification system, whether a comprehensive approach should be taken or a focused approach will be an optimum solution is an important but difficult question. In order to find an answer to this question, it will be necessary to consider factors such as security benefits, confidentiality, effectiveness of verification and cost-efficiency.

38. It is basically considered that IAEA safeguards measures provided by both the Comprehensive Safeguards Agreement and the Additional Protocol will provide a good basis for the considerations of a future verification system for "banning the production of fissile material for nuclear weapons or other nuclear explosive devices." Therefore, additional obligations should not, in principle, be imposed on non-nuclear-weapon States which adopt both the Comprehensive Safeguards Agreement and the Additional Protocol.

39. Given the complexity of the technical deliberations, the idea to establish a group of experts, similar to the one established for technical work on the verification of the CTBT, may merit serious consideration in order to prepare a common knowledge ground for future negotiations.

40. In order to facilitate negotiations on the FMCT verification system, it would be beneficial to make full use of past experience, expertise, and infrastructure of the IAEA to an extent comparable with the scope and aim of the FMCT. Organizational matters should also be discussed in terms of the potentiality for the FMCT verification system to become the future organization to verify nuclear disarmament and ultimately underpin the nuclear-weapon-free world.

CONFERENCE ON DISARMAMENT

CD/1719
9 October 2003

Original: ENGLISH

**LETTER DATED 1 OCTOBER 2003 FROM THE PERMANENT REPRESENTATIVE
OF THE NETHERLANDS TO THE CONFERENCE ON DISARMAMENT
ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON
DISARMAMENT TRANSMITTING A SUMMARY OF THE FIFTH OPEN-ENDED
INFORMAL MEETING IN THE FRAMEWORK OF THE NETHERLANDS' FMCT-
EXERCISE, ON A TREATY BANNING THE PRODUCTION OF FISSILE MATERIAL
FOR NUCLEAR WEAPONS AND OTHER NUCLEAR EXPLOSIVE DEVICES, HELD
IN GENEVA ON 26 SEPTEMBER 2003**

I have the honor to forward to you a summary of the fifth open-ended informal meeting in the framework of the Netherlands' FMCT-Exercise on the issue of banning the production of fissile material for nuclear weapons and other nuclear explosive devices (FMCT). This meeting was organised on Friday September 26, 2003, by the delegation of the Kingdom of the Netherlands to the Conference on Disarmament.

The topic of this fifth meeting was the non-weapon-use of fissile material: naval propulsion. At this meeting Dr. Marvin Miller, Research Affiliate, Center for International Studies, Department of Nuclear Engineering, Massachusetts Institute of Technology, and Dr. Tariq Rauf, in his personal capacity, gave introductions on this issue.

The total number of participants in this meeting was well over 100. Over 45 countries attended this meeting, some of them for the first time, demonstrating the growing interest in substantive debate on this issue.

I would be grateful, if you could issue this letter as well as the attachments to this letter as an official document of the Conference on Disarmament, and distribute it to all Member States of the Conference and non-members States participating in its work.

GE.03-64775

Introduction

Dr. Miller, who emphasised to be speaking in a personal capacity, outlined the dangers of the diversion of HEU (Highly Enriched Uranium), particularly WGU (Weapon Grade Uranium) with regard to possible terrorist use to build a gun-type nuclear weapon. By means of examples (the widely spread HEU research reactors and nuclear powered submarines) Dr. Miller gave an overview of the difficulties in relation to a future FMCT and the present dangers of proliferation (see his presentation in attachment for more detailed information).

Dr. Rauf, who was also speaking in a personal capacity, gave a presentation on the problems arising from the use of fissile material as fuel for submarines in relation to non-proliferation implications. He especially drew the attention of the meeting to the lack of safeguards in this respect. He added that if a future FMCT would not cover naval propulsion, an important gap in the system of safeguards would remain (see his presentation in attachment for more detailed information).

Paragraph 14

Both Dr. Miller and Dr. Rauf drew attention to the problem that might be caused by invoking the 'escape' of paragraph 14 of INFCIRC/153, the NPT model safeguards agreement. Paragraph 14 creates a loophole in regard to comprehensive verification, since it allows states to make certain exceptions on the mandatory inspections.

Some participants argued that due to the highly classified nature of submarine operations and due to the fact that they operate most of the time out on the sea, it will be virtually impossible to develop a comprehensive safeguard-system. In this respect it was argued that the design of the submarine, reactor, composition of fuel, etc. are also highly classified information which parties would be very reluctant to make available for inspection.

It was also mentioned that under the NPT basically two categories of actions exist: allowed and prohibited activities. It was argued that it would pose difficulties to distinguish between those categories if an inspection, due to the classified nature of the reactor, submarine, etc. is limited to specific elements.

Role of the IAEA

Other participants argued that this is a loophole that should be mended. Dr. Miller replied that in his view the IAEA should investigate the possibilities and try to come to a solution. Dr. Rauf stated that if naval propulsion would be excluded from inspections by the IAEA this would leave an important gap in the system of safeguards. However, Dr. Rauf added that to a certain extent the loophole is already mended because the IAEA does investigate and keep track of non-declared stocks of HEU. The specific topic of naval propulsion though has not been subject of discussion within the IAEA. He furthermore added that the IAEA has developed a technique, which allows dismantling warheads, without revealing the composition of the used isotopes. This technique might be a solution for inspecting naval reactors. Remotely monitoring a reactor can prove difficult, because this might disclose its ships position.

Development of new techniques

Other participants emphasised the need for developing new techniques, which might simplify monitoring of non-described military use. The diplomatic community should no longer patiently wait and see what new techniques science is developing, instead diplomats should demand for the development of techniques that can be used to tackle the problems they are facing.

FMCT

Several participants stressed the importance of a Fissile Material Cut-off Treaty as a means of preventing proliferation of fissile material and prevention of non-conventional terrorism. Even the use of HEU for powering spacecraft was mentioned in this regard as a possible problem.

The readiness for starting negotiations on a FMCT was broadly acknowledged. By some it was argued that a FMCT would only relate to war materiel, not to the civilian or peaceful use of fissile material, although leaving the problem of verification of the latter unresolved. This issue should be dealt with after negotiations had commenced, it was argued.

(Signed):

Chris C. Sanders
Ambassador

Permanent Representative of the Netherlands
to the Conference on Disarmament

Annex I

*The Use of HEU in Naval Nuclear Reactors and
Its Implications for a Fissile Material Cutoff Treaty (FMCT)*

Marvin Miller
Center for International Studies & Department of Nuclear Engineering
Massachusetts Institute of Technology

Geneva, Switzerland September 26, 2003

1. As many of you know, the Bush administration's strategy paper, *National Strategy to Combat WMD*, issued in December 2002 supports the negotiation of an FMCT that "advances U.S. security interests". For some enlightenment on what this phrase means, I consulted a colleague at the U.S. State Dept. who told me that this document was an unclassified version of a classified Presidential Decision Directive that went into more details, but wasn't quotable at a public meeting. However, beyond noting that an FMCT wasn't high on the Bush administration's nonproliferation agenda, he said that the U.S. position was consonant with the views expressed in a recently published paper by William McCarthy and Andrew Barlow, "Verification of an FMCT". In particular, the U.S. government would only support a treaty that: applied to future production not existing stocks; took a focused approach to verification; and allowed the production of tritium and fissile material for civil purposes and non-explosive military applications, such as naval propulsion. Regarding the last, he commented, only half in jest, that the U.S. government would not allow "the FMCT tail to wag the Nuclear Navy dog." That is, the U.S. Navy would continue to use HEU, specifically weapons-grade uranium (WGU: 93.5% U-235), in its naval reactors, and would oppose intrusive verification of HEU in the naval fuel cycle.

2. On the other hand, the risk of diversion of HEU, particularly WGU, is, post 9/11, of growing international concern, particularly with regard to the possibility that a terrorist group could make a gun-type nuclear weapon from such material. This has motivated renewed emphasis in arms control circles on eliminating the use of HEU in both civilian land-based and naval reactors. Indeed, an effort to accomplish the former, the Reduced Enrichment Research and Training Reactor (RERTR) program has been underway since 1978 at the Argonne National Laboratory in the U.S. To date, 38 HEU-fueled research reactors in the U.S. and 19 other countries had been converted to the use of LEU, or are in the process of converting. In addition, 21 new research reactors have been built, are being built, or are planned with the new LEU fuels developed by the RERTR program. [For more information on the U.S. RERTR program, see their website: <http://www.td.anl.gov/Programs/RERTR/RERTR.htm>]

3. However, the task of eliminating the use of HEU in research reactors is far from complete. Although Russia launched its own RERTR program in parallel to the U.S., and succeeded in converting a significant number of WGU reactors it had exported to 36% enrichment, the program shut down in 1988 for lack of funding. In 1993, it restarted in cooperation with the US RERTR program with the goal of converting all US and Russian -designed research reactors to LEU by the end 2012. To this end, new and better LEU fuels - specifically fuels of higher uranium density to compensate for the reduction in enrichment -are needed to convert the most

demanding existing HEU reactors, e.g., the research reactor at MIT, and to encourage the use of LEU fuels in all future research reactors.

4. [The simple substitution of LEU for HEU in the reactor fuel elements without compensatory measures will reduce both the neutron intensity (flux) in the reactor and the lifetime of the fuel, and thus the reactor's potential utility as an experimental facility and its cost of operation, respectively. The major compensatory measure is to increase the amount (the loading or the density) of uranium in the fuel – either by increasing the proportion of uranium in an existing fuel type, e.g., a mixture of uranium and aluminum, or by the use of new fuels that have an inherently higher uranium density such as uranium silicides. The increase in density required may be decreased somewhat if it is possible to redesign the fuel element. For example, conversion of the 93.5% enriched MIT research reactor fuel to 20% would require uranium fuel densities of 8.6 g/cm³ and 7.6 g/cm³ for fuel of current and modified geometry, respectively. While the highest uranium density fuel currently licensed has a density of 4.8g/cm³, fuels with much higher density, e.g., so-called monolithic Uranium-Molybdenum (U-Mo) fuel with a density of 16g/cm³, are under development. (The existing MIT reactor fuel has a uranium density of 1.7g/cm³.)]

5. Thus, the prospects for LEU operation of all existing and future research reactors are good. However, there are still about 50 HEU-fueled research reactors with a power level of at least 1 MW for which no conversion to LEU is underway, and there are also a large number of officially shut-down, but not decommissioned research reactors, some of which may have significant quantities of poorly-secured HEU in inventory. The existing inventory of HEU for research reactors is estimated to be about 20 MT. [Also, a new 20 MW German reactor, the FRM-2, is scheduled to operate using HEU, but may be converted to LEU in the future if higher density fuels are developed.]

6. What about the prospects of converting HEU naval reactors to LEU? Currently, there are about 170 nuclear-powered vessels at sea; about 150 are submarines, and of these there are about 2X as many attack and cruise missile (SSN and SSGN) submarines combined as ballistic missile (SSBN) subs. [For a detailed breakdown, see Table 1 on p. 91 of the paper by Ma Chunyan & Frank von Hippel, "Ending the Production of HEU for Naval Reactors", *Nonproliferation Review*, 8 (2001), pp. 86-101.] Although the only states that currently have nuclear-powered vessels are the P-5, mostly in the US and Russia (~135), over the years several non-nuclear weapon states have indicated an interest in also acquiring SSNs. In fact, as most of you know, it was at the insistence of states such as Italy and Holland that wanted to retain an SSN option that the right to withdraw nuclear material from safeguards for such non-explosive military purposes was incorporated into paragraph 14 of INFCIRC/153, the NPT model safeguards agreement. [For a comprehensive analysis of the proliferation implications of invoking either paragraph 14 of INFCIRC/153 or Article III.2 of the NPT in order to utilize nuclear material in non-explosive military applications without safeguards, see Marie-France Desjardins and Tariq Rauf. See, e.g., "Opening Pandora's Box? Nuclear-Powered Submarines and the Spread of Nuclear Weapons" Aurora Papers 8 (Ottawa: The Canadian Centre for Arms Control and Disarmament, 1988)]

7. However, the paragraph 14 "loophole" was an academic issue until June 1987 when Canada announced plans to purchase a fleet of SSNs. At the time, I had recently returned from a leave of absence from MIT at the US Arms Control & Disarmament Agency (ACDA) where we had become aware of a secret Brazilian project to construct a centrifuge plant to produce enriched uranium to fuel a planned Brazilian SSN. The concern of the US government was that

if the fuel were weapons grade, as was the case for US and British subs, Brazil, at that time not a signatory of the NPT, would simultaneously acquire a nuclear weapons option. Since the admiral in charge of the Brazilian nuclear program and several of his associates were graduates of the MIT Nuclear Engineering Department (NED), while several of our senior professors had come from the US Nuclear Navy program, starting a research project at MIT on the feasibility of using LEU for naval propulsion seemed like a good idea.

8. [The challenge of converting existing HEU-fueled naval reactors, particularly submarine reactors, to the use of LEU fuel is more daunting than conversion of land-based research reactors. Space on ships, especially submarines, is very tight, and thus the option of enlarging the core volume as a means of maintaining the same reactor power and fuel lifetime in the absence of suitable higher uranium density fuels is not practical. Moreover, naval reactors must operate reliably for long periods of time, ideally for the life of the vessel, in a much more hostile and hazardous environment, e.g., in combat and underwater, and this may rule out the use of higher density fuels that are suitable for converting research reactors to LEU. However, as discussed below, it may be possible to design new nuclear-powered ships “from the ground up” to use LEU. See the following. Currently, the US and the UK use WGU to fuel their nuclear-powered subs and surface ships, Russia uses HEU up to 45% enrichment for its subs and up to 90% for its icebreakers, France uses both LEU and WGU for its existing subs, depending on the type, but future designs will use LEU, while China uses LEU. For details, see Ma Chunyan and Frank von Hippel, op. cit., Table 2, p. 92.]

9. By the time of the Canadian announcement, such a project was already underway, but the competition between the UK and France to supply Canada with SSNs soon supplied us with an “existence proof” for the feasibility of an LEU-fueled submarine reactor. In a meeting in early 1988, with Yves Girard, a member of the French team that was promoting the sale of the French SSN, the *Rubis*, to Canada, I learned that the this submarine had been designed “from the bottom up” to use LEU instead of HEU. Specifically, the 50 MW *Rubis* reactor used fuel with three different enrichment levels, with an average enrichment of 7%. This required refueling every 10 years compared to 20 years for the larger US Los Angeles class SSNs. This in turn led to a decision to build hatches into the hull that in turn limited the diving depth to 350 meters. The other consequence of using 7% enrichment instead of the 97.3 % enrichment then used in US naval reactors was a significant increase in the volume of the reactor core, which was partially compensated for by using a compact “integral” reactor layout in which the steam generators are inside the pressure vessel instead of being outside as in a standard loop-type reactor layout. In sum, Girard said: “You must understand that we don’t have an unlimited budget. So our reasonable goal was not to make the best submarine in the world, but to get the best efficiency/cost ratio.”

10. The “existence proof” for the feasibility of an LEU-fueled sub provided by the *Rubis* was confirmed and extended by researchers in the MIT NED. They demonstrated that increasing the enrichment of the *Rubis* fuel from 7% to 20% permitted an extension of the core lifetime from 10 to 20 years, the same as that of the 97.3% enriched model reactor core that represented their best guess of the secret design of US naval reactor fuel. For reactors of the same power rating, the penalty for using 20 % enrichment was an increase in the core volume of about 2.5.

11. By the time the US Nuclear Navy got around to responding to the possibility of converting naval propulsion fuel from weapons-grade to LEU – in a June 1995 *Report on Use of Low Enriched Uranium in Naval Nuclear Propulsion* – the concern about SSN proliferation had

abated considerably. Canada had given up its SSN ambitions in 1990, primarily because of cost; nuclear subs are much more expensive to build and maintain than modern diesels. In addition, India had quietly returned the SSN it had leased from the Soviet Union amidst great fanfare in 1988 after a nuclear accident at sea, and Brazil had both scaled back its SSN program significantly, and pledged not to use fuel of >20% enrichment. Nonetheless, the report's bottom line - that the increase in core volume attendant in reducing the fuel enrichment from weapons grade to 20% was unacceptable to the U.S. Navy - has significant technical and political implications. The goal of the US Navy is to build the best nuclear-powered vessels in the world, and their fuel design has been optimized during an ongoing development program of more than 50 years to provide a rugged and reliable power source in the smallest possible volume that can respond to the need for rapid and frequent power changes to support tactical maneuvering, and last for the lifetime of the vessel. Their contention - that attempting to increase the uranium density of this fuel sufficiently to compensate for going to LEU without an increase in core volume would seriously compromise its performance - is both strongly held and impossible to verify without access to classified information.

12. Where does this leave us? The fact that the lifetime of the new US SSNs has been increased from 20 to 33 years indicates that some tweaking of their WGU fuel to increase the uranium density and/or that an increase in core volume *has* occurred. Could further changes in this direction permit the use of LEU? Perhaps. The good news from the perspective of the need to produce more HEU for naval propulsion is that both the U.S. and Russia are awash in stocks of HEU to fuel their nuclear-powered fleets for a long time without any further production. In particular, the U.S. Navy has stated that it has enough HEU stockpiled to fuel its nuclear ships at the current rate - estimated at ~2tons/year - for "many decades". During this time, the US could provide leadership by example by seriously investigating the potential for using new LEU fuels, possibly of the type being developed under the RERTR program to convert the remaining HEU research reactors, and also the possibility of non-intrusive but credible monitoring of the naval fuel cycle.

13. Re the former, I note that the high density U-Mo fuel previously mentioned is, unfortunately, not a suitable candidate for naval reactors primarily because of its poor metallurgical performance at the high temperatures characteristic of naval reactor operation. Re the latter, the need for credible, but non-intrusive verification in arms control agreements, e.g., the provisions for "managed access" to facilities in both the so-called "Additional Protocol" to IAEA safeguards agreements, INFCIRC/540, and in the Chemical Weapons Convention, is well recognized and accepted. Of course, "the devil is in the details", but it should be possible to devise credible nuclear naval safeguards procedures. For a detailed discussion, see the series of papers on the subject by Morten Bremer Maerli, the latest being "Timely Options for Increased Transparency and Non-Intrusive Verification on Highly Enriched Uranium Naval Fuel", *Journal of Nuclear Materials Management*, vol. XXXI, no. 4, Summer 2003.

Annex II

FMCT Exercise, Geneva: 25 September 2003

**THE CANADIAN NUCLEAR
SUBMARINE ACQUISITION
PROGRAMME OF 1987-1990**

by
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PERSONAL COMMENTS

Disclaimer

During 1986-1995, Tariq Rauf worked at the Canadian Centre for Arms Control and Disarmament in Ottawa – an independent think-tank funded in part by External Affairs and International Trade Canada (EAITC), i.e. the Canadian foreign ministry – and during that time he actively covered Canadian nuclear arms control and disarmament policy issues, including Canadian defence policy issues. During 1990-2001, he served as Non-Proliferation Expert / Advisor with Canada's delegations to NPT Review Conferences and their Preparatory Committees. The contents of this presentation derive from his publications and notes dating to 1987-1990, and do not in any way reflect the views of any organization or entity – the views expressed are entirely personal and for purposes of facilitating discussion only.

**Canadian Nuclear Submarine Acquisition Programme:
1987-1990**

- June 1987: Canadian Defence White Paper identifies a requirement for the acquisition of 10-12 SSNs for the Canadian Navy
- Stated Mission Requirements: protection of SLOCs, GIUK gap, Defence of territorial waters
- Unstated Mission Requirements: assertion of Canadian territorial claims in the Arctic, including protection of the Northwest Passage and other Arctic sea-channels from foreign shipping
- Candidate SSN Suppliers: UK (*Trafalgar*) / France (*Rubis/Amethyste*)
- SSN Fuel: *Trafalgar* (HEU), *Rubis* (LEU)

**Canadian Nuclear Submarine Acquisition Programme:
Non-Proliferation Implications**

- NPT: no prohibition on acquisition of SSNs
- INFCIRC/164: Canadian CSA
- Paragraph 14, INFCIRC/164: Non-application of safeguards to nuclear material to be used in non-peaceful activities
- Model arrangement to implement para. 14 (?)
- Precedent for safeguards (?)
- Precedent for non-proliferation (?)

**Canadian Nuclear Submarine Acquisition Programme:
Non-Proliferation Implications**

- Key issue: exemption from safeguards of HEU/(LEU) used for nuclear submarine fuel?
- *Trafalgar*: ship propulsion reactor (SP-5) licensed for production and use by the UK from the USA
- US-UK nuclear cooperation agreement does not allow retransfer or supply to third country, without specific prior permission from the US
- Isotopic composition of HEU-fuel, fabrication information, etc. remain highly classified
- Requirement for exemption of HEU-fuel from safeguards on the grounds of protection of classified information

**Canadian Nuclear Submarine Acquisition Programme:
Non-Proliferation Implications**

- Key issue: exemption from safeguards of HEU/(LEU) used for nuclear submarine fuel?
- *Rubis*: ship propulsion reactor of indigenous French design burning LEU in pellet forms
- Isotopic composition of LEU-fuel, fabrication information, etc. remain highly classified (?)
- Requirement for exemption of LEU-fuel from safeguards on the grounds of protection of classified information (?)

Canadian Nuclear Submarine Acquisition Programme:
Non-Proliferation Implications

■ Paragraph 14, INFIIRC/153 (INFICRC/164)

Non-Application of Safeguards to Nuclear Material to be used in non-peaceful activities

14. The Agreement should provide that if the State intends to exercise its discretion to use *nuclear material* which is required to be safeguarded thereunder in a nuclear activity which does not require the application of safeguards under the Agreement, the following procedures will apply:

Canadian Nuclear Submarine Acquisition Programme:
Non-Proliferation Implications

Paragraph 14, INFIIRC/153 (INFICRC/164)

- a) The State shall inform the Agency of the activity, making it clear:
 - i. That the use of the nuclear material in a non-proscribed military activity will not be in conflict with an undertaking the State may have given and in respect of which Agency safeguards apply, that the nuclear material will be used only in a peaceful nuclear activity; and
 - ii. That during the period of non-application of safeguards the nuclear material will not be used for the production of nuclear weapons or other nuclear explosive devices;

**Canadian Nuclear Submarine Acquisition Programme:
Non-Proliferation Implications
Paragraph 14, INFIIRC/153 (INFICRC/164)**

- b) The Agency and the State shall make an arrangement so that only while the nuclear material is in such an activity, the safeguards provided for in this Agreement will not be applied. The arrangement shall identify, to the extent possible, the period or circumstances during which safeguards will not be applied.... The Agency shall be kept informed of the total quantity and composition of such unsafeguarded nuclear material in the State and of any exports of such material; and

**Canadian Nuclear Submarine Acquisition Programme:
Non-Proliferation Implications
Paragraph 14, INFIIRC/153 (INFICRC/164)**

- c) Each arrangement shall be made in agreement with the Agency...but shall not involve any approval or classified knowledge of the military activity or relate to the use of the nuclear material therein.

Canadian Nuclear Submarine Acquisition Programme:
Non-Proliferation Implications

- Central purpose of the Agency's safeguards system is to verify non-proliferation commitments (non-diversion of safeguarded nuclear material and absence of undeclared nuclear material & activities.
- In practice Agency safeguards apply to all nuclear material in a NPT NNWS.
- Exemption under para. 14 would affect verification of compliance and continuity of safeguards knowledge
- Practically impossible to create a "good precedent" for exemption under para. 14.

Canadian Nuclear Submarine Acquisition Programme:
Non-Proliferation Implications

- Para. 14 exemption was put in place during the negotiations on INFCIRC/153 (1970-1971), in deference to the wishes of certain advanced industrial States with advanced nuclear programmes
- Nuclear-powered civilian ships: *Otto Hahn* (German), and "*Mutsu*" (Japanese) – Soviet nuclear-powered ice-breaker fleet

**Canadian Nuclear Submarine Acquisition Programme:
Non-Proliferation Implications**

- Para. 14 exemption tried to limit the scope:
 - Non-proscribed military activity will not be in conflict with safeguards undertaking
 - Nuclear material will be used only in peaceful nuclear activity
 - During the period of non-application of safeguards, the nuclear material will not be used for the production of nuclear weapons or other nuclear explosive devices
 - The period / circumstances of non-application will be identified (to the extent possible)
 - The Agency shall be kept informed of the total quantity and composition of the nuclear material on which safeguards are not being applied
 - Approval / classified knowledge of non-proscribed military activity, or use of nuclear material therein, not required

**Canadian Nuclear Submarine Acquisition Programme:
Non-Proliferation Implications**

- Canada initiated discussions with the IAEA to negotiate a "model" paragraph 14 arrangement, with a view to: (a) ensuring the protection of classified information involving the ship-propulsion reactor, isotopic composition and fabrication of the nuclear fuel; (b) setting a "good precedent" to the extent possible by minimizing the break in safeguards; and (c) committing to the return to safeguards of the spent fuel (while protecting classified information relating to its composition).

**Canadian Nuclear Submarine Acquisition Programme:
Non-Proliferation Implications**

- Canadian critics of the SSN acquisition of the programme charged that, in practice, it would not be possible to set a "good precedent" in invoking the paragraph 14 exemption; that a Pandora's Box could be opened leading other NPT NNWS to opt for exemptions thus leading to a weakening of the international safeguards system; that there was no internationally agreed definition of "non-proscribed military activity"; and that such action would break a "taboo" on the non-invocation of paragraph 14.

Canadian Nuclear Submarine Acquisition Programme

- In 1990, the Canadian government abandoned the SSN acquisition programme on the grounds of costs. A fleet of four diesel-powered submarines (SSKs) was eventually acquired from the UK in 2000-2002.

CONFERENCE ON DISARMAMENT

CD/1724

31 December 2003

Original: ENGLISH, FRENCH
and SPANISH

**LETTER DATED 19 DECEMBER 2003 FROM THE PERMANENT
REPRESENTATIVE OF ITALY TO THE CONFERENCE ON DISARMAMENT ON
BEHALF OF THE EUROPEAN UNION ADDRESSED TO THE
SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT
TRANSMITTING THE TEXT OF THE EU STRATEGY AGAINST PROLIFERATION
OF WEAPONS OF MASS DESTRUCTION, ADOPTED BY THE EUROPEAN
COUNCIL IN BRUSSELS ON 12 - 13 DECEMBER 2003**

As Presidency of the European Union, I would appreciate it if you could kindly circulate the enclosed text as an official document of the Conference on Disarmament: "The EU strategy against proliferation of weapons of mass destruction" which was adopted by the European Council held in Brussels on 12 – 13 December 2003.

(Signed):

Carlo Trezza,
Ambassador
Permanent Representative of Italy
to the Conference on Disarmament

AnnexEU STRATEGY AGAINST PROLIFERATION OF WEAPONS OF MASS DESTRUCTION

At Thessaloniki, the European Council adopted a Declaration on non-proliferation of Weapons of Mass Destruction. Member States made the commitment, drawing on the Basic Principles already established, to further elaborate before the end of 2003 a coherent EU strategy to address the threat of proliferation, and to continue to develop and implement the Action Plan adopted in June by the Council as a matter of priority.

Delegations will find herewith the draft strategy elaborated to fulfil the commitment taken in Thessaloniki.

INTRODUCTION

1. The proliferation of weapons of mass destruction and their means of delivery such as ballistic missiles are a growing threat to international peace and security. While the international treaty regimes and export controls arrangements have slowed the spread of WMD and delivery systems, a number of states have sought or are seeking to develop such weapons. The risk that terrorists will acquire chemical, biological, radiological or fissile materials and their means of delivery adds a new critical dimension to this threat.

2. As the European Security Strategy makes clear, the European Union cannot ignore these dangers. WMD and missile proliferation puts at risk the security of our states, our peoples and our interests around the world. Meeting this challenge must be a central element in the EU's external action. The EU must act with resolve, using all instruments and policies at its disposal. Our objective is to prevent, deter, halt and, where possible, eliminate proliferation programmes of concern worldwide.

3. Non-proliferation, disarmament and arms control can make an essential contribution in the global fight against terrorism by reducing the risk of non state actors gaining access to weapons of mass destruction, radioactive materials, and means of delivery. We recall in this context the Council conclusions of 10 December 2001 on implications of the terrorist threat on the non-proliferation, disarmament, and arms control policy of the EU.

**CHAPTER I PROLIFERATION OF WMD AND MEANS OF DELIVERY IS A
GROWING THREAT TO INTERNATIONAL PEACE AND
SECURITY**

4. The proliferation of weapons of mass destruction and their means of delivery are a growing threat. Proliferation is driven by a small number of countries and non-state actors, but presents a real threat through the spread of technologies and information and because proliferating countries may help one another. These developments take place outside the current control regime.

5. Increasingly widespread proliferation of weapons of mass destruction increases the risk of their use by States (as shown by the Iran/Iraq conflict) and of their acquisition by terrorist groups who could conduct actions aimed at causing large-scale death and destruction.
6. Nuclear weapons proliferation: the Treaty on the Non-proliferation of Nuclear Weapons (NPT) must be preserved in its integrity. It has helped to slow and in some cases reverse the spread of military nuclear capability, but it has not been able to prevent it completely. The possession of nuclear weapons by States outside the NPT and non-compliance with the Treaty's provisions by states party to the Treaty, risk undermining non-proliferation and disarmament efforts.
7. Chemical Weapons Proliferation: A particular difficulty with verification and export control regimes is that the materials, equipment, and know-how are dual use. One way of assessing the level of risk is to see whether there is indigenous ability to produce chemical warfare (CW) agent precursors and to weaponise chemical warfare agents. In addition, several countries still possess large chemical weapons stockpiles that should be destroyed, as provided for in the Chemical Weapons Convention. The possible existence of chemical weapons in States not party to the Chemical Weapons Convention is also a matter of concern.
8. Biological weapons proliferation: although effective deployment of biological weapons requires specialised scientific knowledge including the acquisition of agents for effective dissemination, the potential for the misuse of the dual-use technology and knowledge is increasing as a result of rapid developments in the life sciences. Biological weapons are particularly difficult to defend against (due to their lack of signature). Moreover, the consequence of the use maybe difficult to contain depending on the agent used and whether humans, animals, or plants are the targets. They may have particular attractions for terrorists. Biological weapons, as well as chemical weapons, pose a special threat in this respect.
9. Proliferation of means of delivery related to weapons of mass destruction: development by several countries of concern of ballistic programmes, of autonomous capacity in the production of medium and long range missiles, as well as cruise missiles and UAV are a growing cause of concern.
10. All such weapons could directly or indirectly threaten the European Union and its wider interests. A WMD attack on the EU's territory would involve the risk of disruption on a massive scale, in addition to grave immediate consequences in terms of destruction and casualties. In particular, the possibility of WMD being used by terrorists present a direct and growing threat to our societies in this respect.
11. In areas of tension where there are WMD programmes, European interests are potentially under threat, either through conventional conflicts between States or through terrorist attacks. In those regions, expatriate communities, stationed and deployed troops (bases or external operations), and economic interests (natural resources, investments, export markets) can be affected, whether or not specially targeted.
12. All the States of the Union and the EU institutions have a collective responsibility for preventing these risks by actively contributing to the fight against proliferation. 13. The EU Situation Centre has prepared and will continuously update a threat assessment using all

available sources; we will keep this issue under review and continue to support this process, in particular by enhancing our co-operation.

CHAPTER II **THE EUROPEAN UNION CANNOT IGNORE THESE DANGERS.
IT MUST SEEK AN EFFECTIVE MULTILATERALIST
RESPONSE TO THIS THREAT.**

14. To address with unceasing determination the threat posed by WMD a broad approach covering a wide spectrum of actions is needed. Our approach will be guided by:

- our conviction that a multilateralist approach to security, including disarmament and non-proliferation, provides the best way to maintain international order and hence our commitment to uphold, implement and strengthen the multilateral disarmament and non-proliferation treaties and agreements;
- our conviction that non-proliferation should be mainstreamed in our overall policies, drawing upon all resources and instruments available to the Union;
- our determination to support the multilateral institutions charged respectively with verification and upholding of compliance with these treaties;
- our view that increased efforts are needed to enhance consequence management capabilities and improve coordination;
- our commitment to strong national and internationally-coordinated export controls;
- our conviction that the EU in pursuing effective non-proliferation should be forceful and inclusive and needs to actively contribute to international stability;
- our commitment to co-operate with the United States and other partners who share our objectives.

At the same time, the EU will continue to address the root causes of instability including through pursuing and enhancing its efforts in the areas of political conflicts, development assistance, reduction of poverty and promotion of human rights.

15. Political and diplomatic preventative measures (multilateral treaties and export control regimes) and resort to the competent international organisations form the first line of defence against proliferation. When these measures (including political dialogue and diplomatic pressure) have failed, coercive measures under Chapter VII of the UN Charter and international law (sanctions, selective or global, interceptions of shipments and, as appropriate, the use of force) could be envisioned. The UN Security Council should play a central role.

A) Effective multilateralism is the cornerstone of the European strategy for combating proliferation of WMD.

16. The EU is committed to the multilateral treaty system, which provides the legal and normative basis for all non-proliferation efforts. The EU policy is to pursue the implementation and universalisation of the existing disarmament and non-proliferation norms. To that end, we will pursue the universalisation of the NPT, the IAEA Safeguard agreements and protocols additional to them, the CWC, the BTWC, the HCOC, and the early entry into force of the CTBT. The EU policy is to work towards the bans on biological and chemical weapons being declared universally binding rules of international law. The EU policy is to pursue an international agreement on the prohibition of the production of fissile material for nuclear weapons or other nuclear explosive devices. The EU will assist third countries in the fulfilment of their obligations under multilateral conventions and regimes.

17. If the multilateral treaty regime is to remain credible it must be made more effective. The EU will place particular emphasis on a policy of reinforcing compliance with the multilateral treaty regime. Such a policy must be geared towards enhancing the detectability of significant violations and strengthening enforcement of the prohibitions and norms established by the multilateral treaty regime, including by providing for criminalisation of violations committed under the jurisdiction or control of a State. The role of the UN Security Council, as the final arbiter on the consequence of non-compliance – as foreseen in multilateral regimes – needs to be effectively strengthened.

18. To ensure effective detectability of violations and to deter non-compliance the EU will make best use of, and seek improvements to, existing verification mechanisms and systems. It will also support the establishment of additional international verification instruments and, if necessary, the use of non-routine inspections under international control beyond facilities declared under existing treaty regimes. The EU is prepared to enhance, as appropriate, its political, financial and technical support for agencies in charge of verification.

19. The EU is committed to strengthening export control policies and practices within its borders and beyond, in co-ordination with partners. The EU will work towards improving the existing export control mechanisms. It will advocate adherence to effective export control criteria by countries outside the existing regimes and arrangements.

B) Promotion of a stable international and regional environment is a condition for the fight against proliferation of WMD

20. The EU is determined to play a part in addressing the problems of regional instability and insecurity and the situations of conflict which lie behind many weapons programmes, recognizing that instability does not occur in a vacuum. The best solution to the problem of proliferation of WMD is that countries should no longer feel they need them. If possible, political solutions should be found to the problems, which lead them to seek WMD. The more secure countries feel, the more likely they are to abandon programmes: disarmament measures can lead to a virtuous circle just as weapons programmes can lead to an arms race.

21. To this end, the EU will foster regional security arrangements and regional arms control and disarmament processes. The EU's dialogue with the countries concerned should take account of the fact that in many cases they have real and legitimate security concerns, with the clear understanding that there can never be any justification for the proliferation of WMD. The EU will encourage these countries to renounce the use of technology and facilities that might cause a particular risk of proliferation. The EU will expand co-operative threat reduction activities and assistance programmes.

22. The EU believes that political solutions to all of the different problems, fears and ambitions of countries in the most dangerous regions for proliferation will not be easy to achieve in the short run. Our policy is therefore to prevent, deter, halt and, where possible, eliminate proliferation programmes of concern, while dealing with their underlying causes.

23. Positive and negative security assurances can play an important role: they can serve both as an incentive to forego the acquisition of WMD and as a deterrent. The EU will promote further consideration of security assurances.

24. Proliferation of WMD is a global threat, which requires a global approach. However, as security in Europe is closely linked to security and stability in the Mediterranean, we should pay particular attention to the issue of proliferation in the Mediterranean area.

C) Close co-operation with key partners is crucial for the success of the global fight against proliferation

25. A common approach and co-operation with key partners is essential in order to effectively implement WMD non-proliferation regime.

26. Co-operation with the US and other key partners such as the Russian Federation, Japan and Canada is necessary to ensure a successful outcome of the global fight against proliferation.

27. In order to tackle and limit the proliferation risk resulting from weaknesses in the administrative or institutional organisation of some countries, the EU should encourage them to be partners in the fight against proliferation, by offering a programme aimed at assisting these countries in improving their procedures, including the enactment and enforcement of implementing penal legislation. Assistance should be associated with regular joint evaluations, reinforcing the collaborative spirit and the confidence building.

28. Appropriate cooperation with the UN and other international organisations will assist in ensuring a successful outcome of the global fight against proliferation. The EU will ensure, in particular, exchange of information and analysis with NATO, within the agreed framework arrangements.

CHAPTER III **THE EUROPEAN UNION MUST MAKE USE OF ALL ITS INSTRUMENTS TO PREVENT, DETER, HALT, AND IF POSSIBLE ELIMINATE PROLIFERATION PROGRAMMES THAT CAUSE CONCERN AT GLOBAL LEVEL.**

29. The elements of the EU's Strategy against proliferation of weapons of mass destruction need to be integrated across the board. We have a wide range of instruments available: multilateral treaties and verification mechanisms; national and internationally-coordinated export controls; cooperative threat reduction programmes; political and economic levers (including trade and development policies); interdiction of illegal procurement activities and, as a last resort, coercive measures in accordance with the UN Charter. While all are necessary, none is sufficient in itself. We need to strengthen them across the board, and deploy those that are most effective in each case. The European Union has special strengths and experience to bring to this collective effort. It is important that the EU's objectives, as set out in this strategy, be factored in its policy approach in each area, so as to maximise its effectiveness.

30. In implementing our strategy we have decided to focus in particular on the specific measures contained in this chapter. It is a "living action plan" whose implementation will be constantly monitored. It will be subjected to regular revision and updating every six months.

A) Rendering multilateralism more effective by acting resolutely against proliferators.

1) *Working for the universalisation and when necessary strengthening of the main treaties, agreements and verification arrangements on disarmament and non-proliferation.*

- Carrying out diplomatic action to promote the universalisation and reinforcement of multilateral agreements, in implementation of the Council Common Position of 17 November 2003.

2) *Fostering the role of the UN Security Council, and enhancing expertise in meeting the challenge of proliferation.*

- Working inter alia to enable the Security Council to benefit from independent expertise and a pool of readily available competence, in order to carry out the verification of proliferating activities that are a potential threat to international peace and security. The EU will consider how the unique verification and inspection experience of UNMOVIC could be retained and utilised, for example by setting up a roster of experts.

3) *Enhancing political, financial and technical support to verification regimes.*

- Now that all EU Member States have ratified the IAEA Additional Protocols, the EU will redouble its efforts to promote their conclusions by third States.

- Fostering measures aimed at ensuring that any possible misuse of civilian programmes for military purposes will be effectively excluded.

- Releasing financial resources to support specific projects conducted by multilateral institutions (i.a. IAEA, CTBTO Preparatory Commission and OPCW) which could assist in fulfilling our objectives.
- Promoting challenge inspections in the framework of the Chemical Weapons Convention and beyond. This issue will be addressed in the CWC competent bodies as well as in the framework of political dialogue with third States.
- Reinforcing the BTWC and the CWC and, in this context, continuing the reflection on verification instruments. The BTWC does not contain at present a verification mechanism. The EU must find ways to strengthen compliance. A group of experts to give advice on how this could be done could be established. The EU will take the lead in efforts to strengthen regulations on trade with material that can be used for the production of biological weapons. The EU will also take the lead in supporting national implementation of the BTWC (e.g. in providing technical assistance). The EU will consider giving support to states with administrative or financial difficulties in their national implementation of the Chemical Weapons Convention and the BTWC.

4) *Strengthening export control policies and practices in co-ordination with partners of the export control regimes; advocating, where applicable, adherence to effective export control criteria by countries outside the existing regimes and arrangements; strengthening suppliers regimes and European co-ordination in this area.*

- Making the EU a leading co-operative player in the export control regimes by coordinating EU positions within the different regimes, supporting the membership of acceding countries and where appropriate involvement of the Commission, promoting a catch-all clause in the regimes, where it is not already agreed, as well as strengthening the information exchange, in particular with respect to sensitive destinations, sensitive end-users and procurement patterns.
- Reinforcing the efficiency of export control in an enlarged Europe, and successfully conducting a Peer Review to disseminate good practices by taking special account of the challenges of the forthcoming enlargement.
- Setting up a programme of assistance to States in need of technical knowledge in the field of export control.
- Working to ensure that the Nuclear Suppliers Group make the export of controlled nuclear and nuclear related items and technology conditional on ratifying and implementing the Additional Protocol.
- Promoting in the regimes reinforced export controls with respect to intangible transfers of dual-use technology, as well as effective measures relating to brokering and transshipment issues.
- Enhancing information exchange between Member States. Considering exchange of information between the EU SitCen and like-minded countries.

5) *Enhancing the security of proliferation-sensitive materials, equipment and expertise in the European Union against unauthorised access and risks of diversion.*

- Improving the control of high activity radioactive sources. After the adoption of the Council Directive on the control of high activity sealed radioactive sources, Member States should ensure its fast implementation at national level. The EU should promote the adoption of similar provisions by third countries.
- Enhancing, where appropriate, the physical protection of nuclear materials and facilities, including obsolete reactors and their spent fuel.
- Strengthening of EC and national legislation and control over pathogenic microorganisms and toxins (both in Member States and in Acceding Countries) where necessary. Co-operation between the public health, occupational health and safety and the non-proliferation structures should be reinforced. The creation of an EU Centre for Disease Control and the task that it would perform should be analysed.
- Fostering the dialogue with industry to reinforce awareness. An initiative will be taken in order to promote firstly a dialogue with EU industry with a view to raising the level of awareness of problems related to the WMD and secondly, a dialogue between EU and US industry, in particular in the biological sector.

6) *Strengthening identification, control and interception of illegal trafficking.*

- Adoption by Member States of common policies related to criminal sanctions for illegal export, brokering and smuggling of WMD-related material.
- Considering measures aimed at controlling the transit and transshipment of sensitive materials.
- Supporting international initiatives aimed at the identification, control and interception of illegal shipments.

B) Promoting a stable international and regional environment

1) *Reinforcing EU co-operative threat reduction programmes with other countries, targeted at support for disarmament, control and security of sensitive materials, facilities and expertise.*

- Prolonging the Programme on disarmament and non-proliferation in the Russian Federation beyond June 2004.
- Increasing EU co-operative threat reduction funding in the light of financial perspectives beyond 2006. The creation of a specific Community budget line for nonproliferation and disarmament of WMD should be envisaged. Member States should be encouraged to contribute also on a national basis. These efforts should include measures aimed at reinforcing the control of the non-proliferation of WMD related expertise, science and technology.

- Setting up of a programme of assistance to States in need of technical knowledge in order to ensure the security and control of sensitive material, facilities and expertise.

2) *Integrate the WMD non-proliferation concerns into the EU's political, diplomatic and economic activities and programmes, aiming at the greatest effectiveness.*

- Mainstreaming non-proliferation policies into the EU's wider relations with third countries, in accordance to the GAERC conclusions of 17 November 2003, inter alia by introducing the non-proliferation clause in agreements with third countries.
- Increasing Union efforts to resolve regional conflicts by using all the instruments available to it, notably within the framework of CFSP and ESDP.

C) Co-operating closely with the United States and other key partners.

- 1) *Ensuring adequate follow up to the EU-US declaration on non-proliferation issued at the June 2003 summit.*
- 2) *Ensuring coordination and, where appropriate, joint initiatives with other key partners.*

D) Developing the necessary structures within the Union

- 1) *Organising a six monthly debate on the implementation of the EU Strategy at the External Relations Council.*
 - 2) *Setting up, as agreed in Thessaloniki, a unit which would function as a monitoring centre, entrusted with the monitoring of the consistent implementation of the EU Strategy and the collection of information and intelligence, in liaison with the Situation Centre. This monitoring centre would be set up at the Council Secretariat and fully associate the Commission.*
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CONFERENCE ON DISARMAMENT

CD/1734
7 May 2004

Original: ENGLISH

**LETTER DATED 23 APRIL 2004 FROM THE PERMANENT REPRESENTATIVE OF
THE NETHERLANDS TO THE CONFERENCE ON DISARMAMENT ADDRESSED
TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT
TRANSMITTING A SUMMARY OF THE SIXTH OPEN-ENDED INFORMAL
MEETING IN THE FRAMEWORK OF THE NETHERLANDS' FMCT-EXERCISE, ON
A TREATY BANNING THE PRODUCTION OF FISSILE MATERIAL FOR NUCLEAR
WEAPONS AND OTHER NUCLEAR EXPLOSIVE DEVICES, HELD IN GENEVA ON
2 APRIL 2004**

I have the honour to forward to you a summary of the sixth open-ended informal meeting in the framework of the Netherlands' FMCT-Exercise on the issue of banning the production of fissile material for nuclear weapons and other nuclear explosive devices (FMCT). This meeting was organised on Friday April 2, 2004, by the delegation of the Kingdom of the Netherlands to the Conference on Disarmament.

The topic of this sixth meeting was, unlike previous meetings where we would have a specific topic to talk about, try once again to take a look at the FMCT as a whole and to come to an exchange of views on what should be – in very general terms – the contents of such a treaty, and to explore possibilities and obstacles when drafting a FMCT. At this meeting Mr. Paul Meyer, Canadian ambassador to the United Nations in Geneva and Mr. Arend J. Meerburg, Special adviser on nuclear issues to the Minister of Foreign Affairs of the Netherlands, both in their personal capacity, gave presentations on this issue.

The total number of participants in this meeting was well over 100. Over 45 countries and in addition a substantial number of representatives of Non Governmental Organisations attended this meeting.

I would be grateful, if you could issue this letter as well as the attachments to this letter as an official document of the Conference on Disarmament, and distribute it to all Member States of the Conference and non-members States participating in its work.

(Signed):

Chris C. Sanders
Ambassador
Permanent Representative of the Netherlands
to the Conference on Disarmament

Summary of the sixth open-ended informal meeting in the framework of the Netherlands' FMCT-Exercise on the issue of banning the production of fissile material for nuclear weapons and other nuclear explosive devices (FMCT)

Introduction

Ambassador Meyer commented in his presentation on the impediments to the advancement of negotiations of an Fissile Material Cut-off Treaty and on ways to overcome these difficulties. After identifying three key issues that might hinder negotiations of an FMCT and discussing the two draft treaty texts that were circulated prior to the meeting, Ambassador Meyer reiterated an earlier proposal of establishing an Experts Group, perhaps even in advance of beginning negotiations, to start considering a number of key issues for an FMCT. He ended his presentation with an appeal to all delegations to initiate the work on negotiations for an FMCT. (see his presentation in attachment for more detailed information).

Mr. Meerburg in his presentation focussed on the nuclear fuel cycle itself, both military and civilian and underlined the need for the international community to develop a general guideline on controlling nuclear non-proliferation. An FMCT is an essential element to achieve results in this regard. Further to this Mr. Meerburg stressed that decreasing stockpiles of fissile material (i.e. of Highly Enriched Uranium and/or Plutonium) should be an essential part of a treaty, since a treaty would otherwise put countries that have (large) stocks in a more favourable position over countries that do not have such stocks. Finally Mr. Meerburg discussed in his presentation a possible system of verifying an FMCT. (see his presentation in attachment for more detailed information).

Following the presentations of both speakers a debate about the topics that were tackled was started.

Negotiations on FMCT

With regard to the lack of progress in initiation of negotiations on an FMCT it was argued that delegations should try to convince capitals and political leaders of the priority of the matter. However, acquiring political attention has proven to be difficult. Still, consensus on a mandate was reached more than nine years ago. Why not make use of that?

It was also argued by some that negotiations in the Conference on Disarmament on an FMCT should not include topics concerning the fuel cycle. However, what if HEU from a military stock is (partially) transferred to a civilian stock? Conversely others argued that the nuclear fuel cycle and FMCT are complementary and that an FMCT relates very much to the Nuclear Weapon States.

In addition it was argued that pending an FMCT a unilateral moratorium should be promulgated by states-parties concerned.

Plutonium

On the matter of (the disposal of) plutonium different solutions were suggested. Solutions that were put forward were: burning it in reactors, if so desired mixed with other fissile material (mox) and storing the material. The latter solution however involves severe risks since it will take decades or even centuries, before radiation has decreased to a more or less harmless level. No matter what solution would be picked, the financial consequences would be great.

Role of the IAEA

The IAEA it was argued has the means to do reliable verifications without disclosing sensitive information. After successful completion of negotiations on an FMCT, the IAEA could play an important role with regard to verification and safeguarding production and stockpiling of fissile material and monitoring compliance with regulations of the FMCT.

Terrorism

Several participants stressed the importance of a Fissile Material Cut-off Treaty as a means of preventing proliferation of fissile material and prevention of non-conventional terrorism. Mr. Meerburg pointed out that HEU is the most "attractive" material for possible nuclear terrorist attacks. Use of plutonium is more difficult. However this material can be used as a component of a radiological weapon ("dirty bomb").

Radiological sources, to be found for instance in hospitals, used for medical treatment are often overlooked as a possible danger.

Ambassador Meyer stressed these were all different aspects of the same threat. There should be more recognition for dangers of nuclear materials of all kinds

Annex I

The Fissile Material Cut-off Treaty: A Mandate in Search of a Mission

Presentation by Paul Meyer, Canadian Ambassador to the UN for Disarmament
FMCT "Exercise" organised by Dutch CD Delegation - Geneva, April 2, 2004

1. Pleased to be part of another in the series of "exercises" organised by the Dutch delegation to the CD with a view to ensuring that our minds continue to be active in considering the challenges posed by a FMCT, while we await the onset of a dedicated negotiation within the CD.

2. I have entitled this presentation - the FMCT: A Mandate in Search of a Mission, to recall that the goal of negotiating a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices, has been a shared goal amongst the members of the CD for some time. It has been encapsulated in a mandate agreed nine years ago last month and one which was actually operationalised for a few weeks of negotiation in 1998. This Shannon mandate, after an earlier Canadian Ambassador for Disarmament, has been for years, regularly re-affirmed in UNGA First Committee resolutions adopted by consensus. The final document of the 2000 NPT Review Conference also called for the "immediate commencement of negotiations" on the FMCT "with a view to their conclusion within five years". Recent concerns about clandestine enrichment and reprocessing activities in certain states and black market procurement networks for related equipment and technology are of direct relevance to the FMCT issue as enrichment and reprocessing facilities would be a central focus of a FMCT. This non-proliferation concern coupled with fears over nuclear terrorism provide a further impetus for concluding a FMCT as an important instrument for limiting the quantity of fissile material in existence and strengthening controls over it.

3. The FMCT's broad, might one say universal appeal, also reflected its crucial role in the systematic progress on advancing the nuclear disarmament and non-proliferation objectives of the NPT. As the CTBT would halt further proliferation or enhancement of nuclear weapons by prohibiting explosive testing, so would the FMCT turn off the tap of fissile material required for the production of such weapons in the first place. It is not a coincidence that the CTBT and FMCT figure number 1 and number 3 in the 13 practical steps for disarmament set out in the 2000 NPT Review Conference outcome. Why is it then that such an apparent high priority negotiation linked to a mandate adopted by consensus and regularly reaffirmed, has not been advanced in over 6 years? The easiest answer, of course, is to say that FMCT negotiations have been held hostage by the protracted disagreement over a program of work in the CD. This as they say is a necessary, but not a sufficient explanation. It is incumbent on us advocates of the FMCT to probe a little further into the matter to discern what the impediments are and to consider how they might be overcome as part of the development of a treaty. There are political-security concerns, which if left unaddressed, could militate against the conclusion, and indeed even the initiation, of a FMCT negotiation. Three key issues in this regard are i) scope, ii) verification and iii) the relationship with the NPT regime as a whole. Allow me to briefly take up each one of these in turn. I will then make a few comments on the draft treaty texts circulated prior to this meeting.

4. **Scope:** A chronic concern for the FMCT has been the question of whether or not it should embrace existing stockpiles of fissile material. With the overt nuclearisation of India and Pakistan and the express pursuit of a nuclear weapons program by the DPRK, this issue has taken on additional strategic significance. The Shannon mandate artfully avoided the issue of stocks while recognising that it could well return during the course of the negotiations. Various ideas have been put forward, including Canadian suggestions for "a separate but parallel process" involving a series of declarations and commitment of excess material under international control. Others have proposed unilateral confidence building measures that would ideally be reciprocated by other states or leaving an opening in any FMCT text to extend its coverage when circumstances permit. With the acute awareness currently of the risks of illegal trafficking of fissile material and its acquisition by terrorist or criminal organisations, there is additional impetus for arrangements that will extend to stocks. The cooperative threat reduction programs and activities like the Global Partnership directed against the spread of WMD materials may offer up other avenues for obtaining more accurate information on holdings that could complement a FMCT.

5. **Verification:** The high standard of a internationally and effectively verifiable treaty has arguably been another factor that has constrained the onset of negotiations. While many may say that there is nothing in the realm of verification that cannot be achieved with the right combination of political will, diplomatic ingenuity and practical arrangements - the FMCT does pose substantial verification challenges. As has been considered in a previous FMCT "exercise" the question of how fissile material for non-explosive military purposes and in particular naval nuclear propulsion fuel could be covered by a verification regime requires careful consideration. There have been some ingenious proposals, but they require a willingness on the part of the users of such naval propulsion system to accept a degree of oversight and monitoring that hitherto they were free of. Are the high standards of secrecy attached to what is after all a non-explosive military use with no proliferation risk still warranted in contemporary circumstances? Here again fundamental issues of the overall benefits to be achieved by conclusion of a FMCT as against sectoral interests within the national security establishment of certain states will need to be weighted and trade-offs made. Similarly, judgments will have to be exercised as to the costs associated with a verification regime and the level of performance required of it. Examining synergies and economies that could arise from associating FMCT verification with the oversight exercised by the IAEA pursuant to the international safeguards system is a crucial area. Despite the absence of an active negotiation or specific invitation by concerned states, the IAEA has expressed its openness to assuming verification responsibilities for an FMCT. This is an area that could benefit from a renewal of earlier feasibility studies and revised modelling by the IAEA to share with interested states.

6. **Relationship to the NPT regime:** Another factor that may be inhibiting some countries from embracing the FMCT relates to the overall state of the NPT and the role of the FMCT within it. States outside the NPT, especially those engaged in an active program of nuclear weaponisation may reject any constraint on their production of fissile material. Even some NPT NWS may be reluctant to foreclose the option of future production if they deem that strategic developments may oblige them to build-up nuclear deterrent forces. The reaction of China for example to the deployment of missile defences that could potentially neutralise its modest nuclear deterrent will bear watching in this regard. If the perception grows that the NPT is beginning to fray around the edges and the proliferation dynamic quickens, commitment to concluding a FMCT may weaken accordingly as states hedge their strategic bets. If this scenario is not to be played out, some countervailing pressures have to be brought to bear. The essential inter-dependency of the major

components of the NPT-centered nuclear disarmament and non-proliferation regime - including the CTBT and the FMCT, needs to be re-affirmed. The non-proliferation structure will be dangerously undermined, if its disarmament supports are neglected and allowed to rot. Alternatively, the FMCT can be seized upon as a potential vehicle for a comprehensive multilateral nuclear control regime that covers for the first time both the military and civilian sectors and provide a solid basis for the eventual movement towards a nuclear weapon free world.

It is this brighter scenario that I hope can be developed over the next months reflecting today's heightened proliferation concerns and the need to reinforce our international defences against it. In this regard, the commencement of FMCT negotiations could help generate a powerful positive momentum to advance common nuclear disarmament and non-proliferation goals.

7. Draft Treaties: Having set a broader policy context, I will now turn to the theme of this exercise which was to consider the FMCT as a whole. While the previous Exercises have focussed on particular key elements, it is useful to take again a more holistic approach, reflecting on the range of issues that will need to be addressed. The two texts that were circulated for this meeting offer a wealth of interesting, even at times controversial ideas about elements for a FMCT. I will not go into these texts in any depth as I am sure that many of you will want to comment on various provisions. Let me just refer to each draft briefly.

8. Tom Shea has provided an extensive, detailed text, coupled with most useful commentary and explanations. Whether or not one agrees with his proposals or rationales, he does provide a wealth of ideas that merit serious reflection and study. What I find particularly useful is the very concrete focus of how a Treaty would actually be operationalized and implemented. This reminds us that, as an integral part of any negotiation, we must always bear in mind how the resulting product will actually function in a practical sense. An example of an issue that not many of us have considered, I suspect, is the governance structures associated with an FMCT and the nature of the Conference of States Parties, a body to which he ascribes considerable policy and approval powers. He has provided some interesting ideas about entry into force, suggesting an approach that ensures a "critical mass" so to speak of states possessing military fissile material, while not allowing any single state to exercise a veto over entry into force. A useful part of his text covers specific technical issues, such as technical features and physical protection, areas that negotiators will need to be mindful of. His innovative proposal for financing through a surcharge on nuclear energy production (which our debt-ridden nuclear power firms might have some problems embracing), has at least brought to our attention the increasingly important issue of how to fund complex treaty-related implementation activity. I will not comment further on the various provisions, but look forward to hearing the discussion.

9. The Greenpeace text looks very much like the type of treaty we are used to. It is very broad and general, leaving much to be added or amplified. An approach here that might prove constructive is to elaborate on the verification provisions in an Annex. Along the model of the CWC, such an approach provides both a legal basis and the flexibility to make changes, based on experience or new technological or other developments.

These two drafts provide a wealth of policy and practical ideas to aid our reflection of what we want in an FMCT. Shea's draft in particular highlights a fundamental aspect of an FMCT - i.e. the highly technical and complex nature of many of the issues involved. These go well beyond the competence and knowledge of most of us here. In this regard, we should give serious

thought to the idea that has earlier been proposed of establishing an Experts Group. Bringing together technical experts - perhaps even in advance of beginning negotiations, should these be delayed in the CD - would provide a valuable forum in which to start considering a number of key issues for an FMCT.

As I noted at the beginning of my remarks we have long had a FMCT mandate in hand. We now have to be entrusted with the mission to initiate our work. The discussions today have further stimulated our desire to move from seminar to negotiating mode. Thank you.

Annex II

FISSILE MATERIAL CUT-OFF TREATY (FMCT)

Outline of the statement made by Arend J.Meerburg¹

Geneva, April 2, 2004

It gives me great pleasure to be able to contribute to the discussion on FMCT in this informal gathering, organized by the Netherlands delegation to the Conference on Disarmament (CD). For a long time I did not think much about this old subject. I once drafted a speech on the cut-off for my then deputy Minister of Foreign Affairs, in 1974, as preparation for the first Review Conference of the NPT in 1975. Some years ago the issue was raised again and in the meantime a lot of important preparatory technical work has been done by, inter alia, the Oxford Research Group, Tom Shea, Greenpeace, Annette Schaper from Germany, Joern Harry from The Netherlands and others, as well as during the five earlier meetings of this character. I am happily stealing ideas from these contributions! Hopefully, negotiations can start soon on this important subject, which gives all the more relevance to our present meeting.

1. Nuclear non-proliferation is in the forefront of international thinking and actions nowadays. A broad approach is necessary, both with respect to proliferation to States as well as to sub-national groups. Strengthening the NPT, entry into force of the CTBT, NWFZ's or other regional arrangements, improved safeguards, stricter export regulations etc. are part of multilateral and international efforts to tackle the problem. The Proliferation Security Initiative and the upcoming SC resolution also part of the actions.

2. One important element of a broad policy is looking to the nuclear fuel cycle itself, both the military and the civilian, concentrating on those materials which can be used for a nuclear explosive: highly enriched uranium (HEU) and separated plutonium. We had an extensive study at the end of the Seventies, the International Nuclear Fuel Cycle Evaluation INFCE, on this matter. Recently, new ideas have been popping up by the DG of the IAEA and by the President of the USA, in particular on uranium enrichment technology (which can be used to produce HEU) and on the separation of plutonium in reprocessing plants.

3. I think that we should start by developing a much broader look to this question than those particular proposals. A kind of general guideline what the international community should be aiming for. Subsequently, we can further develop the various elements in different international or multilateral fora or by taking appropriate national measures. The Fissile Material Cut-Off Treaty FMCT is one of the essential elements of this approach. Let me explain.

4. To put it very simply, an optimal non-proliferation policy (taking into account the risk of terrorism) would involve eradicating HEU and separated plutonium from the face of the earth. This is, of course, not possible for a long time to come. In the meantime, we must see to it that:

¹ A.J.Meerburg works for the Ministry of Foreign Affairs of The Netherlands. The views expressed here do not necessarily reflect the position of the Government of The Netherlands.

- there is the smallest possible amount of HEU and separated Pu;
- current stocks are, accordingly, destroyed wherever possible; for HEU by blending it to LEU, for Pu by burning it in reactors or finding a real safe system for long-term inaccessible storage;
- remaining stocks are strongly protected in a limited number of places;
- if these materials are used, they are transported as little as possible (for example MOX fuel fabrication takes place at the site of the reprocessing plant or storage place);
- if these materials are transported, they are in forms that are difficult to access (e.g. in a carbon matrix);
- ownership and management of reprocessing and enrichment facilities are not in the hands of individual countries so that breakout is more difficult;
- the IAEA has all relevant information to ensure transparency for the international community; full scope safeguards and the Additional Protocol are essential tools for bringing this about, but not necessarily the only ones;
- it is a political necessity to treat NWS and NNWS as evenhanded as possible.

5. Thus, this is a broad agenda on the fuel cycle, which in itself is part of a broader programme to tackle horizontal and vertical nuclear non-proliferation, including with respect to sub-national groups. The Fissile Material Cut-Off Treaty is one of the essential tools to tackle a number of the issues above, but one of the questions is: how many of these issues do you want to include in such a treaty. Thus, what is the scope of the FMCT?

6. The main purpose of such a treaty is, of course, that no HEU and Pu is being produced anymore for use in nuclear weapons. I think we all agree on that: setting a final cap on the amounts of fissile materials available for nuclear weapons. In my opinion, this means shutting down and dismantling of all military enrichment and reprocessing plants or converting these for use in the civilian nuclear fuel cycle. And military Pu-producing reactors should be shut down or converted for civilian purposes. This also gives an opportunity to apply safeguards in a much less discriminatory way than is happening now, since the states possessing nuclear weapons and the non-nuclear weapon states (NNWS) should ideally have to accept the same safeguards on their peaceful nuclear activities. Of course, this would have substantial consequences for the size of the inspectorate of the IAEA. I am coming back to that.

7. Since we are getting ourselves involved in a pretty complex negotiation in any case, one could easily argue that we can use the opportunity to achieve more goals. A rather obvious one is to aim for a more balanced outcome for the main parties, taking into account existing stockpiles of HEU and Pu. It is argued, of course, that under a FMCT those countries having large military stockpiles of HEU and Pu would have an advantage over countries not having such stockpiles. Moreover, stockpiles could be so large that a production cut-off does not have any meaning since the countries involved could still produce any number of nuclear weapon (NW) they like. Thus, decreasing the stockpiles should be an essential part of the treaty, in this view. Alternatively, one could tackle this question also in parallel. An example is the agreement between the USA and the Russian Federation to dispose of 34 tons of weapons-grade Pu on each side. A problem may be that states possessing nuclear weapons are probably not very forthcoming in declaring their stockpiles in an international forum like the CD. The question of stockpiles was discussed at length on April 4, 2003 in a similar forum as this, so I will not dwell too much upon it.

8. In both the draft treaties by Shea and Greenpeace many more goals are set. In my opinion, certainly Greenpeace is going too far. By banning the production of Pu-containing fuel, for example, it would be impossible to get rid of the existing stockpiles of Pu. We probably need MOX or other more advanced fuels to burn-up Pu, to get really rid of it. I do not know whether safe long term storage of Pu is possible. In any case, we should not close off options for the time being.

9. Tom Shea's draft treaty has many very interesting points. He tackles quite a lot of the issues I mention in paragraph 4 above, including how the peaceful nuclear fuel cycle would have to look like. There is one large advantage of his approach: the core of the FMCT itself is, of course, putting obligations on the states possessing NW. By having a substantial part in the treaty on the structure and management of sensitive parts of the civilian nuclear fuel cycle, there would be obligations for NNWS also: a kind of 'deal' with obligations from both sides. This is an important issue to take into account.

10. However, I see also considerable disadvantages. After the proposals by the DG of the IAEA, Mohammed Al-Baradei, and other proposals to make the fuel cycle more proliferation resistant, we need time to analyse all the consequences of these ideas which have a substantial bearing on how nuclear business should be done in the future. As far as I know, the DG wants to start a process of consultations on these ideas in the form of an expert-group and subsequently maybe a governmental forum. Is it wise for the CD to dig itself into a complex discussion which probably belongs better in Vienna? We would load the FMCT discussion with another tricky matter which may hold up the main goal we want to achieve.

11. That does not mean I reject all ideas in the draft by Tom Shea. To the contrary. For example, one of the big problems we will have to encounter is the question of pretty high enriched uranium used for propulsion of submarines and other military vessels. This is not a prohibited activity but in view of the probable reluctance of the relevant NWS to bring such materials under safeguards, thereby divulging the percentage of enrichment and the amounts of such material being used, it may easily create a loophole in the verification system we need. It would be in the interest of all of us that no uranium enriched above 20% would be used for propulsion, but that may take quite a long time to achieve. In the long run, this seems technically possible, however. In the meantime, I suggest that the countries using nuclear propulsion for military vessels have large enough stocks of pretty high enriched uranium to last for many years, enabling the switch-over to at most 20% enriched fuel. (But maybe that is not true.)

12. I fully agree with Shea that the IAEA should take up the role of verifying the FMCT. It would seem somewhat silly to set up a new verification mechanism with substantial overlap with the safeguards regime, including the voluntary safeguards in NWS. Earlier, I suggested that the safeguards on the civilian fuel cycle should be the same for NNWS and states possessing NW. It would be the ideal situation to remove this existing discrimination, but it would mean that the safeguards workload of the IAEA would have to double or triple or maybe more. Thus, we may have to find a more focussed cost-effective system, taking into account that the purpose of verifying a FMCT is not the same as that of NPT safeguards. How could a simpler system look like?

13. First of all, of course, the IAEA should verify that all military enrichment and reprocessing plants are closed and as soon as possible dismantled. That may not be a too difficult task, although States with a NW capability may try to hide enrichment and/or reprocessing activities

in not-proscribed nuclear-weapon facilities where the IAEA has no access. Here is maybe a real problem. Enrichment and reprocessing plants which are not closed should be transferred to the civilian fuel cycle. The IAEA should verify that the enrichment plants which remain are modified so that these can only produce enriched uranium under 20 % (and preferable a much lower percentage) and stay that way. There is enough experience in the field to achieve this last goal, including by short notice inspections. Plutonium separated in civilian reprocessing plants should come under IAEA safeguards and stay there until it is burned in reactors or safely disposed of. Of course, all already existing enrichment and reprocessing plants in the civilian cycle should be treated in the same way.

14. And of course safeguards should cover all the fissile materials taken out of the military stockpiles, either under the FMCT treaty itself, under parallel agreements by states possessing nuclear weapons or unilaterally. It does not matter for the verification regime how the problem of the stockpiles is being tackled. The IAEA, Russia and the USA have already developed a safeguards-system for such sensitive material under a trilateral arrangement. As said earlier, such stockpiles of fissile material directly usable in NW, should have the highest levels of physical security and should be destroyed or safely disposed of as quickly as possible. To destroy HEU by blending is not difficult. To get rid of separated Pu may take quite a long time of hard work. But we should do it.

15. To come back to the IAEA, I am not worried about a much larger safeguards division of the IAEA covering a much bigger part of nuclear activities in the world. I think that is good! It is part and parcel of our ultimate common goal of 'General and Complete Disarmament under Strict and Effective International Control' which we agreed in 1961. I am worried about the strange situation that in Vienna some countries insist that the finances for safeguards should always match the money for technical assistance. We should really get rid of that silly system. Recently, somebody remarked that the IAEA should be split into a tough regulatory organisation (including safeguards) and an agency to promote the peaceful uses of nuclear energy. I am not sure this is a good idea, but it is certainly something to think about. Shea proposes another solution by taxing the nuclear industry to pay for the increased amount of safeguards. In any case, we have to solve it.

16. This brings me to the end of my contribution. I would like to thank Ambassador Chris Sanders again for having organized this meeting and I am looking forward to questions.

References:

- Annette Schaper: Principles of the verification for a future FMCT, PRIF-reports No.58, Peace Research Institute Frankfurt, Januari 2001
 - Joern Harry: FMCT Verification and Safeguards, ESARDA Bulletin Number 30, December 1999
 - Frank Barnaby: The FMCT Handbook, Oxford Research Group, February 2003
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CONFERENCE ON DISARMAMENT

CD/1751
10 June 2005

Original: ENGLISH,
FRENCH and SPANISH

**LETTER DATED 9 JUNE 2005 FROM THE PERMANENT REPRESENTATIVE OF
THE NETHERLANDS TO THE CONFERENCE ON DISARMAMENT ADDRESSED
TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT
TRANSMITTING ON BEHALF OF THE EUROPEAN UNION THE TEXT OF THE
COMMON POSITION OF THE EUROPEAN UNION TO THE 2005 REVIEW
CONFERENCE OF THE PARTIES TO THE TREATY ON THE NON-PROLIFERATION
OF NUCLEAR WEAPONS, OF 25 APRIL 2005¹**

On behalf of the European Union I have the honour to transmit herewith the Common Position of the European Union of 25 April 2005 relating to the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (2005/329/PESC).

I should be grateful if this Common Position could be issued as an official document of the Conference on Disarmament and distributed to the delegations of all member States of the Conference and non-member States participating in its work.

(Signed):

Chris C. Sanders
Ambassador
Permanent Representative of the Netherlands
to the Conference on Disarmament

¹/ Originally published in English, French and Spanish in the *Official Journal of the European Union*.

(Acts adopted under Title V of the Treaty on European Union)

COUNCIL COMMON POSITION 2005/329/PESC

of 25 April 2005

relating to the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on European Union, and in particular Article 15 thereof,

Whereas:

- (1) The European Union continues to regard the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) as the cornerstone of the global nuclear non-proliferation regime, the essential foundation for the pursuit of nuclear disarmament in accordance with Article VI of the NPT and an important element in the further development of nuclear energy applications for peaceful purposes.
- (2) On 17 November 2003 the Council adopted Common Position 2003/805/CFSP on the universalisation and reinforcement of multilateral agreements in the field of non-proliferation of weapons of mass destruction and means of delivery⁽¹⁾. On 12 December 2003 the European Council adopted a Strategy against proliferation of Weapons of Mass Destruction.
- (3) The United Nations Security Council unanimously adopted Resolution 1540 (2004), describing the proliferation of weapons of mass destruction and their means of delivery as a threat to international peace and security.
- (4) The 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons with the task of examining the Treaty and the question of its extension adopted decisions on the indefinite extension of the Treaty on the Non-Proliferation of Nuclear Weapons, on principles and objectives for nuclear non proliferation and disarmament and on strengthening the review process for that Treaty and a resolution on the Middle East.
- (5) On 13 April 2000 the Council adopted Common Position 2000/297/CFSP relating to the 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons⁽²⁾.
- (6) The 2000 NPT Review Conference adopted a final document.
- (7) The Preparatory Committee for the 2005 NPT Review Conference held three sessions, from 8 to 19 April 2002 in New York, 28 April to 9 May 2003 in Geneva and 26 April to 7 May 2004 in New York.
- (8) On 29 April 1997 the Council adopted Joint Action 97/288/CFSP on the European Union's contribution to the promotion of transparency in nuclear-related export controls⁽³⁾.
- (9) On 17 May 2004 the Council adopted Joint Action 2004/495/CFSP on support for IAEA activities under its Nuclear Security Programme and in the framework of the implementation of the EU Strategy against Proliferation of Weapons of Mass Destruction⁽⁴⁾.
- (10) On 1 June 2004 the Council adopted a statement of support for the Proliferation Security Initiative on Weapons of Mass Destruction.
- (11) The Additional Protocol to the Verification Agreement between the Non-Nuclear-Weapon States of the European Atomic Energy Community (EURATOM), EURATOM and the International Atomic Energy Agency (IAEA), the Additional Protocol to the Safeguards Agreement between France, EURATOM and the IAEA, and the Additional Protocol to the Safeguards Agreement between the United Kingdom, EURATOM and the IAEA have been signed and entered into force on 30 April 2004.
- (12) In the light of the outcome of the 2000 Review Conference and of the discussions at the three sessions of the Preparatory Committee for the NPT 2005 Review Conference, and bearing in mind the current situation, it is appropriate to update and develop further the objectives set out in Common Position 2000/297/CFSP, and the initiatives carried out under its terms,

⁽¹⁾ OJ L 302, 20.11.2003, p. 34.

⁽²⁾ OJ L 97, 19.4.2000, p. 1.

⁽³⁾ OJ L 120, 12.5.1997, p. 1.

⁽⁴⁾ OJ L 182, 19.5.2004, p. 46.

HAS ADOPTED THIS COMMON POSITION:

Article 1

The objective of the European Union shall be to strengthen the international nuclear non proliferation regime by promoting the successful outcome of the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

Article 2

For the purposes of the objective laid down in Article 1, the European Union shall:

(a) contribute to a structured and balanced review of the operation of the NPT at the 2005 Review Conference, including the implementation of undertakings of the States Parties under the said Treaty, as well as the identification of areas in which, and of means through which, further progress should be sought in future;

(b) help build a consensus on the basis of the framework established by the NPT by supporting the Decisions and the Resolution adopted at the 1995 Review and Extension Conference and the final document of the 2000 NPT Review Conference, and shall bear in mind the current situation and shall promote *inter alia* the following essential issues, including:

1. undertaking efforts to preserve the integrity of the NPT and strengthen its implementation;
2. recognising that the NPT is a unique and irreplaceable multilateral instrument for maintaining and reinforcing international peace, security and stability, in that it establishes a legal framework for preventing increased proliferation of nuclear weapons and for developing further a verification system guaranteeing that non-nuclear-weapons States use nuclear energy solely for peaceful purposes, and that it represents the essential foundation for the pursuit of nuclear disarmament in accordance with Article VI thereof;
3. working towards universal accession to the NPT;
4. stressing the absolute necessity of full compliance with all the provisions of the NPT by all States Parties;
5. calling on all States not party to the NPT to pledge commitments to non-proliferation and disarmament and calling on those States to become States Parties to the NPT as non nuclear weapon States.
6. recognising that serious nuclear proliferation events have occurred since the end of the 2000 Review Conference;

7. stressing the need to strengthen the role of the UN Security Council, as final arbiter, in order that it can take appropriate action in the event of non-compliance with NPT obligations, in keeping with the Statute of the International Atomic Energy Agency (IAEA), including the application of safeguards;

8. drawing attention to the potential implications for international peace and security of withdrawal from the NPT. Urging the adoption of measures to discourage withdrawal from the said Treaty;

9. calling for nuclear cooperation to be suspended where the IAEA is not able to provide adequate assurances that a State's nuclear programme is designed exclusively for peaceful purposes, until such time as the Agency is able to provide such assurances;

10. calling on all States in the region to make the Middle East into an effectively verifiable zone free of nuclear weapons and other weapons of mass destruction and their delivery systems, in keeping with the Resolution on the Middle East adopted at the 1995 Review and Extension Conference;

11. since security in Europe is linked to security in the Mediterranean, giving top priority to implementation of the nuclear non-proliferation regime in that region;

12. acknowledging the importance of nuclear-weapon-free zones for peace and security, on the basis of arrangements freely entered into between the States of the region concerned;

13. stressing the need to do everything possible to prevent the risk of nuclear terrorism, linked to possible terrorist access to nuclear weapons or materials that could be used in the manufacture of radiological dispersal devices and, in this context, stressing the need for compliance with obligations under Security Council Resolution 1540 (2004). Calling for tighter security for high activity radioactive sources. Supporting G8 and IAEA action in this regard;

14. recognising that, in the light of the increased threat of nuclear proliferation and terrorism, the Proliferation Security Initiative, the Global Threat Reduction Initiative and the G8 Global Partnership Initiative should be approved;

15. calling for universal accession to the Comprehensive Safeguards Agreements and Additional Protocols;

16. recognising that Comprehensive Safeguards Agreements and Additional Protocols have a deterrent effect on nuclear proliferation and form today's verification standard, and continuing to work for increased detectability of any violations of Treaty obligations;
17. working for recognition by the IAEA Board of Governors that the conclusion of a Comprehensive Safeguards Agreement and an Additional Protocol is today's verification standard;
18. highlighting the IAEA's unique role in verifying States' compliance with their nuclear Non-proliferation commitments and helping them, on request, to tighten up the security of nuclear materials and installations, and calling on States to support the Agency;
19. recognising the importance of appropriate effective export controls, in compliance with Security Council Resolution 1540 (2004) and in accordance with Article III.2 of the NPT;
20. implementing, at national level, effective export, transit, transshipment and re-export controls, including appropriate laws and regulations for that purpose;
21. enacting effective criminal sanctions to deter illegal export, transit, brokering, trafficking and related financing, in compliance with UNSC Resolution 1540 (2004);
22. urging the Zangger Committee and the Nuclear Suppliers Group to share their experience on export controls, so that all States can draw on the arrangements of the Zangger Committee and the Nuclear Suppliers Group (NSG) guidelines;
23. pointing up the need to strengthen the (NSG) Guidelines at an early date, to adapt them to new non-proliferation challenges;
24. calling on the States Parties to the Convention on the Physical Protection of Nuclear Material to work for rapid conclusion of an amended Convention;
25. recognising the right of States Parties to the NPT to nuclear energy for peaceful purposes, in accordance with Article IV thereof, with due regard for Articles I, II and III of the Treaty;
26. underlining the importance of continuing international cooperation in order to strengthen nuclear safety, safe waste management and radiological protection and calling upon States that have not yet done so to accede to all the relevant conventions as soon as possible and to implement fully the ensuing commitments;
27. noting that the States Parties to the NPT, may, pursuant to Article IV thereof, have resort to peaceful uses of nuclear energy, *inter alia* in the area of production of electricity, industry, health and agriculture;
28. urging the formulation of guarantees of access to nuclear fuel services, or to fuel itself, subject to appropriate conditions;
29. noting the report of the IAEA's expert group on multinational approaches to the nuclear fuel cycle and promoting an early start to its scrutiny by the IAEA;
30. stressing, while acknowledging the nuclear arms reductions which have taken place since the end of the cold war, the need for an overall reduction in nuclear arsenals in the pursuit of gradual, systematic nuclear disarmament under Article VI of the NPT and welcoming, in this context, the ratification of the Moscow Treaty by the Russian Federation and the United States of America in 2002, while stressing the need for more progress in reducing their arsenals;
31. stressing the need to implement the declarations made by the Presidents of Russia and America in 1991 and 1992 on unilateral reductions in their stocks of non-strategic nuclear weapons and calling on all States with non-strategic nuclear weapons to include them in their general arms control and disarmament processes, with a view to their reduction and elimination;
32. recognising application of the principle of irreversibility to guide all measures in the field of nuclear disarmament and arms control, as a contribution to the maintenance and reinforcement of international peace, security and stability, taking these conditions into account;
33. recognising the importance, from the point of view of nuclear disarmament, of the programmes for the destruction and elimination of nuclear weapons and the elimination of fissile material as defined under the G8 World Partnership;

34. pursuing efforts to secure transparency, as a voluntary Confidence Building Measure to support further progress in disarmament;
35. since the Comprehensive Nuclear Test Ban Treaty (CTBT) forms an essential part of the nuclear disarmament and non-proliferation regime and with a view to its entry into force as soon as possible, without conditions, calling on States, particularly those listed in Annex II, to sign and ratify the said Treaty without delay and without conditions and, pending the entry into force of the said Treaty, calling on all States to abide by a moratorium and to refrain from any action contrary to the obligations and provisions of the said Treaty. Highlighting the importance of the work of the CTBT Organisation Preparatory Commission and actively supporting the work of the Special Representative of the States which have ratified the Treaty charged with promoting universal accession to the Treaty;
36. appealing again to the Disarmament Conference for the immediate commencement and early conclusion of a non-discriminatory, universally applicable Treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices, without pre-conditions, and bearing in mind the special coordinator's report and the mandate included therein and, pending entry into force of the said Treaty, calling on all States to declare and uphold a moratorium on the production of fissile material for nuclear weapons or other nuclear explosive devices. The EU welcomes the action of those of the five nuclear-weapon States which have decreed the relevant moratorium;
37. calling on all States concerned to take appropriate practical measures in order to reduce the risk of accidental nuclear war;
38. pursuing consideration of the issue of security assurances to the non-nuclear-weapon States Parties to the NPT;
39. calling on nuclear-weapon States to reaffirm existing security assurances noted by the United Nations Security Council in Resolution 984(1995) and to sign and ratify the relevant protocols on nuclear-weapon-free zones, drawn up following the requisite consultations, recognising that Treaty-based security assurances are available to such zones;
40. stressing the need for general disarmament;
41. highlighting the importance of universal accession and implementation of the Biological and Toxins Weapons Convention (BTWC), the Chemical Weapons Convention (CWC) and the conventions, measures and initiatives contributing to conventional arms control;
42. calling for universal accession to and effective implementation of the Hague Code of Conduct against Ballistic Missile Proliferation;
43. working for the resolution of the problems of regional instability and insecurity and of the conflict situations which are often at the root of armament programmes.

Article 3

Action taken by the European Union for the purposes of Article 2 shall comprise:

- (a) where appropriate, demarches by the Presidency, pursuant to Article 18 of the Treaty on European Union, with a view to promoting the universality of the NPT;
- (b) demarches by the Presidency, pursuant to Article 18 of the Treaty on European Union, with regard to States Parties to the NPT, in order to urge their support for the objectives set out in Article 2 of this Common Position;
- (c) the pursuit of agreement by Member States on draft proposals on substantive issues for submission on behalf of the European Union for consideration by States Parties to the NPT which may form the basis for decisions of the NPT 2005 Review Conference;
- (d) Statements by the European Union delivered by the Presidency in the General Debate and in the debates in the three Main Committees.

Article 4

This Common Position shall take effect on the date of its adoption.

Article 5

This Common Position shall be published in the *Official Journal of the European Union*.

Done at Luxembourg, 25 April 2005.

For the Council
The President
J. ASSELBORN

CONFERENCE ON DISARMAMENT

CD/1752
27 June 2005

Original: ENGLISH

LETTER DATED 27 JUNE 2005 FROM THE PERMANENT REPRESENTATIVE OF MALAYSIA ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE TEXT OF THE WORKING PAPER BY THE MEMBERS OF THE GROUP OF NON-ALIGNED STATES PARTIES TO THE 2005 REVIEW CONFERENCE OF THE PARTIES TO THE TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS HELD IN NEW YORK FROM 2 TO 27 MAY 2005

I have the honour to transmit herewith a copy of the document entitled "Working Paper by the Members of the Group of Non-Aligned States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons on the Substantive Issues to be Considered by Main Committee I of the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons", which had been submitted to Main Committee I of the 2005 NPT Review Conference.

I would be grateful if this document could be issued and circulated as an official document of the Conference on Disarmament.

(Signed):

Hsu King Bee
Ambassador &
Permanent Representative of Malaysia
to the United Nations Office and
other International Organizations in Geneva

Substantive issues to be considered by Main Committee I of the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

Working paper presented by the members of the Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons¹

Nuclear disarmament

1. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons emphasizes that the Treaty is a key instrument in the efforts to halt the vertical and horizontal proliferation of nuclear weapons and an essential foundation for the pursuit of nuclear disarmament.
2. The Group of Non-Aligned States parties to the Treaty remains deeply concerned by strategic defence doctrines that set out the rationales for the use of nuclear weapons, as demonstrated by the recent policy review by one of the nuclear-weapon States to consider expanding the circumstances in which these weapons could be used.
3. The Group of Non-Aligned States parties to the Treaty reiterates its call for a full implementation of the unequivocal undertaking given by the nuclear-weapon States at the 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament. That undertaking should be demonstrated without delay through an accelerated process of negotiations and through the full implementation of the 13 practical steps to advance systematically and progressively towards a nuclear-weapon-free world as agreed to at the 2000 Review Conference.
4. The Group of Non-Aligned States parties to the Treaty deeply regrets the continued inflexible postures of some nuclear-weapon States that have prevented the Conference on Disarmament from establishing an ad hoc committee on nuclear disarmament. The negotiation of a phased programme for the complete elimination of nuclear weapons with a specified time frame, including a nuclear weapons convention, is necessary and should commence without delay. In that regard, the Group reiterates its call to establish, as soon as possible, and as the highest priority, an ad hoc committee on nuclear disarmament.
5. The Group remains concerned by the continued inability of the Conference on Disarmament to resume its negotiation of a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile materials for nuclear weapons and other explosive devices, taking into account both nuclear disarmament and non-proliferation objectives. In this context, the Conference on

¹/ Originally issued as document of the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons under the symbol NPT/CONF.2005/WP.18 of 2 May 2005.

Disarmament is urged to agree a programme of work that includes the immediate commencement of negotiations on such a treaty with a view to their conclusion within five years. The Group is also concerned by attempts to limit the scope of the negotiations on a fissile material treaty as contained in the statement of the Special Coordinator in 1995 and the mandate contained therein, which was endorsed at both the 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons and the 2000 Review Conference.

6. The Group of Non-Aligned States parties to the Treaty remains deeply concerned by the lack of progress towards achieving the total elimination of nuclear weapons despite some reports of bilateral and unilateral reductions. The Group is also concerned by the existence and continued deployment of tens of thousands of such weapons, whose exact number remains unconfirmed, owing to the lack of transparency in various nuclear weapons programmes. While noting the signing of the Treaty between the United States of America and the Russian Federation on Strategic Offensive Reduction on 24 May 2002, the Group stresses that reductions in deployments and in operational status cannot take the place of irreversible cuts in, and the total elimination of, nuclear weapons. The non-entry into force of START II is a setback to the 13 practical steps in the field of nuclear disarmament adopted at the 2000 Review Conference. In that regard, the Group calls for the application of the principles of irreversibility and increased transparency by the nuclear-weapon States regarding nuclear disarmament and nuclear and other related arms control and reduction measures.

7. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons believes that the abrogation of the Treaty on the Limitation of Anti-Ballistic Missile Systems has brought new challenges to strategic stability and the prevention of an arms race in outer space. The Group remains concerned that the implementation of a national missile defence system could trigger an arms race or arms races, the further development of advanced missile systems and an increase in the number of nuclear weapons. In accordance with General Assembly resolution 59/65, the Group emphasizes the urgent need for the commencement of substantive work, at the Conference on Disarmament, on the prevention of an arms race in outer space.

8. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons also believes that the possible development of new types of nuclear weapons and new targeting options to serve aggressive counter-proliferation purposes as well as the lack of progress in diminishing the role of nuclear weapons in security policies further undermine disarmament commitments.

9. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons underlines the unanimous conclusion of the International Court of Justice that there exists an obligation to pursue in good faith and to bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control.

10. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons has called for the establishment of a subsidiary body on nuclear disarmament to focus on the issue of fulfilment of the obligations under article VI.

Nuclear testing

11. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons welcomes the signature of the Comprehensive Nuclear-Test-Ban Treaty by 175 States and its ratification by 120 States. The Group, in accordance with its long-standing and principled position in favour of the total elimination of all forms of nuclear weapons, supports the objectives of the Treaty, which is intended to enforce a comprehensive ban on all nuclear test explosions, and to stop the qualitative development of nuclear weapons that would pave the way towards the total elimination of nuclear weapons.

12. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons believes that the significance of achieving universal adherence to the Comprehensive Nuclear-Test-Ban Treaty, including by the five nuclear-weapon States, would contribute towards the process of nuclear disarmament and therefore towards the enhancement of international peace and security. The Group also believes that if the objectives of the Comprehensive Nuclear-Test-Ban Treaty were to be fully realized, the continued commitment of all States signatories, especially the five nuclear-weapon States, to nuclear disarmament, would be essential.

13. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons believes that the five nuclear-weapon States have a special responsibility to ensure the entry into force of the Comprehensive Nuclear-Test-Ban Treaty, not only because they are among the 44 States listed in Annex 2 to the Treaty, but also because, on account of their position, they are expected to lead in making the ban on tests a reality. It will be possible to determine the success of the Comprehensive Nuclear-Test-Ban Treaty only when it has been signed and ratified by the five nuclear-weapon States and the remaining countries in Annex 2.

14. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons regrets the fact that one nuclear-weapon State has taken the decision not to proceed with the ratification of the Comprehensive Nuclear-Test-Ban Treaty. Positive decisions by the nuclear-weapon States would have the desired impact on progress towards entry into force of the Comprehensive Nuclear-Test-Ban Treaty. Early ratification by nuclear-weapon States would pave the way and encourage the remaining countries listed in Annex 2 to the Comprehensive Nuclear-Test-Ban Treaty, especially the three States with unsafeguarded nuclear facilities, to sign and ratify the Treaty.

15. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons recalls the undertaking by the nuclear-weapon States at the time of negotiation of the Comprehensive Nuclear-Test-Ban Treaty to ensure that the Treaty would

halt both vertical and horizontal proliferation, thereby preventing the appearance of new types of nuclear devices, as well as nuclear weapons based on new physical principles. The nuclear-weapon States stated at that time that the only steps to be followed would be to maintain the safety and reliability of the remaining or existing weapons, which would not involve nuclear explosions. In that regard, the Group calls upon those States to continue to refrain from conducting nuclear test explosions for the development or further improvement of nuclear weapons. The Group wishes to re-emphasize the principles of the non-proliferation regime, both vertically and horizontally.

16. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons underscores the importance of the five nuclear-weapon States maintaining their voluntary moratoriums on nuclear weapon test explosions since the opening for signature of the Comprehensive Nuclear-Test-Ban Treaty. However, the Group believes that moratoriums do not take the place of the signing, ratification and entry into force of the latter.

17. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons emphasizes that the development of new types of nuclear weapons is contrary to the guarantee given by the five nuclear-weapon States at the time of the conclusion of the Comprehensive Nuclear-Test-Ban Treaty, namely, that the Treaty would prevent the improvement of existing nuclear weapons and the development of new types of nuclear weapons. Pending the entry into force of the Treaty, States should refrain from any actions contrary to its objectives and purpose. In this context, the Group is seriously concerned by the decision by a nuclear-weapon State to reduce the time necessary to resume nuclear testing to 18 months as a setback to the 2000 Review Conference agreements. The lack of progress in the early entry into force of the Comprehensive Nuclear-Test-Ban Treaty also remains a cause for concern.

Security assurances

18. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons believes that the Conference should also substantially focus on the issue of security assurances. At the 2000 Review Conference, the States parties to the Treaty had agreed that legally binding security assurances by the five nuclear-weapon States to the non-nuclear-weapon States parties ... strengthened the nuclear non-proliferation regime and called on the Preparatory Committee to make recommendations to the 2005 Review Conference of the States parties to the Treaty on the Non-Proliferation of Nuclear Weapons on this issue.

19. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons recalls that the thirteenth Conference of Heads of State or Government of the Non-Aligned Countries expressed serious concern that the development of new types of nuclear weapons was being considered, and reiterated that the provision for the use of nuclear weapons against non-nuclear-weapon States was in contravention of the negative security assurances that had been provided by the nuclear-weapon States. The

Group also recalls that the Heads of State or Government of the Non-Aligned Countries also restated that the development of new types of nuclear weapons contravened the assurances provided by the nuclear-weapon States at the time of the conclusion of the Comprehensive Nuclear-Test-Ban Treaty that the Treaty would prevent the improvement of existing nuclear weapons and development of new types of nuclear weapons.

20. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons emphasizes that the indefinite extension of the Treaty does not imply the indefinite possession by the nuclear-weapon States of their nuclear arsenals and considers, in that regard, that any assumption of indefinite possession of nuclear weapons is incompatible with the integrity and sustainability of the nuclear non-proliferation regime, both vertical and horizontal, and with the broader objective of maintaining international peace and security.

21. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons reaffirms that the total elimination of nuclear weapons is the only absolute guarantee that there will be no use or threat of use of nuclear weapons and further reaffirms that non-nuclear-weapon States should be effectively assured by nuclear-weapon States that there will be no use or threat of use of nuclear weapons. Pending the total elimination of nuclear weapons, the Group reiterates that efforts to conclude a universal, unconditional and legally binding instrument on security assurances to non-nuclear-weapon States should be pursued as a matter of priority.

22. The Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons stresses that it is the legitimate right of States that have given up the nuclear-weapon option to receive security assurances. In that regard, the Group calls for the negotiation of a universal, unconditional and legally binding instrument on security assurances, believing that such assurances to the non-nuclear-weapon States parties to the Treaty fulfil the undertaking to the States that have voluntarily given up the nuclear-weapons option by becoming parties to the Treaty. The Group believes that legally binding security assurances within the context of the Treaty would provide an essential benefit to the States parties.

23. In keeping with the above-mentioned position and in accordance with the decision at the 2000 Review Conference, the Group of Non-Aligned States parties to the Treaty on the Non-Proliferation of Nuclear Weapons has called for the establishment of a subsidiary body on security assurances for further work to be undertaken to consider legally binding security assurances by nuclear-weapon States.
