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DISARMAMENT COMMISSION

Supplement for 1966

DISARMAMENT COMMISSION DOCUMENTS

Issued during the period 1 January to 31 December 1966

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DOCUMENT DC/228

Report of the Conference of the Eighteen-Nation Committee on Disarmament (27 January - 25 August 1966)

[*Original text : English and Russian*]
[*30 August 1966*]

1. The Conference of the Eighteen-Nation Committee on Disarmament transmits to the Disarmament Commission and to the General Assembly a report on the Committee's deliberations on all questions before it for the period 27 January to 25 August 1966.

2. Representatives of the following States continued their participation in the work of the Committee : Brazil, Bulgaria, Burma, Canada, Czechoslovakia, Ethiopia, India, Italy, Mexico, Nigeria, Poland, Romania, Sweden, Union of Soviet Socialist Republics, United Arab Republic, United Kingdom of Great Britain and Northern Ireland and United States of America.

I. Procedural arrangements

3. Upon recommendation of the Co-Chairmen, the Conference reconvened on 27 January 1966.

4. Two series of meetings were held, consisting of twenty-nine and twenty-three meetings respectively.

5. The Committee, at its 286th meeting on 25 August 1966, having in view the convening of the twenty-first session of the General Assembly on 20 September 1966, decided to adjourn and to resume its meetings in Geneva as soon as possible after the termination of the consideration of disarmament at the twenty-first session of the General Assembly, on a date to be decided by the two Co-Chairmen after consultation with the members of the Committee.

II. General and complete disarmament and measures aimed at the lessening of international tension, the consolidation of confidence among states and facilitating general and complete disarmament

6. Members of the Committee have continued to discuss, in accordance with General Assembly resolution 2031 (XX), transmitted by the Secretary-General of the United Nations in a letter to the Co-Chairmen dated 14 January 1966 [*ENDC 161*], the question of general and complete disarmament. The Committee considers it to be a primary goal of its future work to continue efforts to develop a treaty on general and complete disarmament under effective international control.

7. In its efforts to achieve and implement the widest possible agreement at the earliest possible date, the Committee continued consideration in its plenary meetings of such measures as could be agreed to prior to, and as would facilitate the achievement of, general and complete disarmament.

8. In accordance with General Assembly resolution 2028 (XX), transmitted by the Secretary-General of the United Nations in a letter to the Co-Chairmen dated 14 January 1966 [*ENDC 161*], the Committee gave urgent consideration to the question of negotiating a treaty on non-proliferation of nuclear weapons.

9. In accordance with General Assembly resolution 2032 (XX), transmitted by the Secretary-General of the United Nations in a letter to the Co-Chairmen dated 14 January 1966 [*ENDC 161*], the Committee also gave urgent attention to the question of reaching agreement on suspension of nuclear and thermonuclear weapons tests in all environments.

10. On 14 January 1966, the Secretary-General of the United Nations transmitted to the Co-Chairmen a letter containing General Assembly resolutions 2030 (XX) and 2033 (XX) [*ENDC 162*].

11. On 26 January 1966, the Special Representative of the Secretary-General of the United Nations submitted a copy of a letter from His Holiness Pope Paul VI to the Secretary-General [*ENDC 163*].

12. On 27 January 1966, at the 235th meeting, the Union of Soviet Socialist Republics submitted a letter dated 24 September 1965, addressed to the President of the General Assembly [1], which enclosed a draft treaty on the non-proliferation of nuclear weapons [*ENDC 164*].

13. At the same meeting, the representative of the United States of America submitted a message to the Conference from the President of the United States, Mr Lyndon B. Johnson [*ENDC 165*].

14. At the same meeting, the representative of the United Kingdom of Great Britain and Northern Ireland submitted a message to the Conference from the Prime Minister of the United Kingdom, Mr. Harold Wilson [*ENDC 166*].

15. On 3 February 1966, at the 237th meeting, the representative of the Union of Soviet Socialist Republics submitted a message to the Conference from the

[1] *Official Records of the General Assembly, Twentieth Session, Annexes*, agenda item 106, document A/5976.

Chairman of the Council of Ministers of the USSR, Mr. Kosygin [*ENDC 167*].

16. On 8 February 1966, at the 238th meeting, the representative of the Union of Soviet Socialist Republics submitted a letter to the Special Representative of the Secretary-General [*ENDC 168*].

17. On 17 February 1966, at the 241st meeting, the Union of Soviet Socialist Republics submitted an aide-mémoire, dated 16 February 1966, addressed to the United States of America, proposing the immediate discontinuance of flights of aircraft carrying nuclear weapons beyond national borders [*ENDC 169*].

18. On 28 February 1966, the United States of America submitted an aide-mémoire, dated 25 February 1966, in response to the aide-mémoire of the USSR, dated 16 February 1966, concerning policies and practices relating to flights of United States military aircraft [*ENDC 170*].

19. On 1 March 1966, at the 244th meeting, the representative of Ethiopia tabled a message to the Conference from His Imperial Majesty Haile Selassie I [*ENDC 171*].

20. On 8 March 1966, at the 246th meeting, the United States tabled a working paper entitled "Transfer of fissionable material obtained by the destruction of nuclear weapons" [*ENDC 172*].

21. On 22 March 1966, at the 250th meeting, the United States submitted amendments [ENDC 152/Add.1] to the United States draft treaty to prevent the spread of nuclear weapons, which had been submitted on 17 August 1965 [*ENDC 152*].

22. On 2 April 1966, the Union of Soviet Socialist Republics submitted a letter to the Special Representative of the Secretary-General of the United Nations with an attached letter [*ENDC 173*].

23. On 14 April 1966, at the 256th meeting, the United States submitted a working paper which described an inspection process for verifying the status of shutdown plutonium reactors [*ENDC 174*].

24. On 5 July 1966, at the 270th meeting, Canada submitted a paper setting forth, in tabular form, the United States draft treaty to prevent the spread of nuclear weapons, and the USSR draft treaty on non-proliferation of nuclear weapons [*ENDC 175*].

25. On 11 August 1966, at the 281st meeting, the United States submitted a paper giving further details of an inspection method for verifying the status of shutdown reactors [*ENDC 176*].

26. On 17 August 1966, Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic submitted a joint memorandum on a comprehensive test ban treaty [*ENDC 177*].

27. On 19 August 1966, Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic submitted a joint memorandum ou non-proliferation of nuclear [*ENDC 178*].

28. On 20 August 1966, the representative of Italy submitted a memorandum concerning the two draft treaties on non-proliferation [*ENDC 179*].

29. On 22 August 1966, Ethiopia submitted a memorandum concerning an approach to the realization of United Nations resolutions on banning of nuclear weapons, denuclearization of Africa, and a world conference on disarmament [*ENDC 180*].

30. On 23 August 1966, the United States submitted a working paper on determination of the location of seismic events [*ENDC 182*].

31. A communication dated 29 July 1966, from the permanent delegation of Venezuela to the United Nations office at Geneva and the international organizations, transmitted a resolution from the Chamber of Deputies of the Republic of Venezuela adopted on 6 July 1966 [*ENDC 183*].

32. In general the questions before the Committee were discussed in a thorough and concrete manner. All the participants in the Committee took an active part in the discussions, and many interesting suggestions were put forward.

33. The Committee did not reach any specific agreement at these meetings either on questions of general and complete disarmament or on measures aimed at the lessening of international tension. The Committee expresses the hope that the useful discussions and exchange of views during the period covered by the report will facilitate agreement in the further work of the Committee.

III. Meetings of the Co-Chairmen

34. During the period covered by this report, the representatives of the Union of Soviet Socialist Republics and of the United States of America, in their capacity as Co-Chairmen of the Conference of the Eighteen-Nation Committee on Disarmament, held meetings to discuss the schedule of and procedure for the work of the Conference and also certain substantive questions before the Conference.

IV. Conference documents

35. Annex 1 contains the text of the documents attached to the present report. Annex 2 contains a list of all Conference and of the verbatim records of the meetings.

36. This report is submitted by the Co-Chairmen on behalf of the Conference of the Eighteen-Nation Committee on Disarmament.

(Signed) A. A. Roschin
(Union of Soviet Socialist Republics)

(Signed) Adrian S. Fisher
(United States of America)

ANNEX 1

LIST OF DOCUMENTS ATTACHED TO THE REPORT

Section		*Document No.*
A	Letter dated 14 January 1966 from the Secretary-General to the Co-Chairmen of the Conference of the Eighteen-Nation Committee on Disarmament, transmitting resolutions 2028 (XX), 2031 (XX) and 2032 (XX) of the General Assembly	ENDC/161
B	Letter dated 14 January 1966 from the Secretary-General to the Co-Chairmen of the Conference of the Eighteen-Nation Committee on Disarmament, transmitting resolutions 2030 (XX) and 2033 (XX) of the General Assembly	ENDC/162
C	Letter dated 26 January 1966 from the Special Representative of the Secretary-General to the Co-Chairmen of the Conference of the Eighteen-Nation Committee on Disarmament, transmitting the text of a letter to the Secretary-General from His Holiness Pope Paul VI	ENDC/163
D	United States of America : message dated 27 January 1966 from President Lyndon B. Johnson to the Conference of the Eighteen-Nation Committee on Disarmament	ENDC/165
E	United Kingdom of Great Britain and Northern Ireland : message dated 27 Juanary 1966 from Prime Minister Harold Wilson to the Conference of the Eighteen-Nation Committee on Disarmament	ENDC/166
F	Union of Soviet Socialist Republics : message dated 1 February 1966 from A. Kosygin, Chairman of the Council of Ministers of the USSR, to the Conference of the Eighteen-Nation Committee on Disarmament	ENDC/167
G	Union of Soviet Socialist Republics : aide-mémoire dated 16 February 1966 from the Soviet Government to the Government of the United States of America	ENDC/169 and Corr.1
H	United States of America : aide-mémoire dated 25 February 1966 from the Government of the United States in reply to the aide-mémoire dated 16 February 1966 from the Soviet Government	ENDC/170
I	Ethiopia : message from His Imperial Majesty Haile Selassie I to the Conference of the Eighteen-Nation Committee on Disarmament	ENDC/171
J	United States of America : working paper on transfer of fissionable material obtained by the destruction of nuclear weapons	ENDC/172
K	United States of America : amendments to the United States draft treaty to prevent the spread of nuclear weapons	ENDC/152/Add.1
L	United States of America : working paper on an inspection method for verifying the status of shutdown plutonium production reactors	ENDC/174
M	Canada : prevention of the spread of nuclear weapons — Tabular comparison of the United States draft treaty to prevent the spread of nuclear weapons and the USSR draft treaty on the non-proliferation of nuclear weapons	ENDC/175
N	United States of America : description of a monitoring system for shutdown nuclear reactors	ENDC/176 and Corr.1
O	Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic : joint memorandum on a comprehensive test ban treaty	ENDC/177
P	Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic : joint memorandum on non-proliferation of nuclear weapons	ENDC/178
Q	Italy : memorandum concerning the draft treaties of the United States and the Soviet Union on non-proliferation	ENDC/179
R	Ethiopia : memorandum concerning an approach to the realization of United Nations resolutions on banning of nuclear weapons, de-nuclearization of Africa and a world conference on disarmament	ENDC/180
S	United States of America : working paper on determination of the location of seismic events	ENDC/182

A

Letter dated 14 January 1966 from the Secretary-General to the Co-Chairmen of the Conference of the Eighteen-Nation Committee on Disarmament, transmitting resolutions 2028 (XX), 2031 (XX) and 2032 (XX) of the General Assembly [a]

[*Original text : English*]

I have the honour to transmit herewith the text of resolution 2028 (XX), adopted by the General Assembly at its 1382nd plenary meeting on 19 November 1965, on the question of " Non-proliferation of nuclear weapons " and to draw your attention to paragraphs 2 and 4 of the resolution calling on the Conference of the Eighteen-Nation Committee on Disarmament to give urgent consideration to the question and requesting it to submit to the General Assembly at an early date a report on the results of its work on a treaty to prevent the proliferation of nuclear weapons.

I also have the honour to transmit herewith the text of resolution 2031 (XX), adopted at the 1388th plenary meeting of the General Assembly held on 3 December 1965, on the " Question of general and complete disarmament ", and to draw your attention to paragraphs 1 and 3 of the resolution requesting the Conference of the Eighteen-Nation Committee on Disarmament to continue its efforts towards making substantial progress in reaching agreement on the question of general and complete disarmament under effective international control, as well as on collateral measures, and requesting it to report to the General Assembly, as appropriate, on the progress achieved.

I also have the honour to transmit herewith the text of resolution 2032 (XX), adopted by the General Assembly at its 1388th meeting on 3 December 1965, on the " Urgent need for suspension of nuclear or thermonuclear tests " and to draw your attention to paragraph 3 of the resolution requesting the Conference of the Eighteen-Nation Committee to continue with a sense of urgency its work on a comprehensive test ban treaty and on arrangements to ban effectively all nuclear weapon tests in all environments, taking into account the improved possibilities for international co-operation in the field of seismic detection, and to report to the General Assembly.

Finally I would like to draw attention to the decision of the General Assembly at its 1388th plenary meeting on 3 December 1965 to refer item 29 (Question of convening a conference for the purpose of signing a convention on the prohibition of the use of nuclear and thermonuclear weapons), to the Conference of the Eighteen-Nation Committee on Disarmament for further study and to defer consideration of this item in the General Assembly until its twenty-first session.

In connexion with paragraph 3 of resolution 2028 (XX), the relevant documents are the following : A/5976, A/6097, A/C.1/L.337, A/C.1/L.338 [b]; A/5991/Rev.2 [c]; A/5999 [d]; A/C.1/900 and Add.1 [e]; A/C.1/L.339 [f]; the verbatim records of the 1354th to 1373rd meetings of the First Committee (A/C.1/PV.1354 to A/C.1/PV.1373) and the verbatim record of the 1382nd plenary meeting (A/PV.1382).

In connexion with paragraph 2 of resolution 2031 (XX), the relevant documents are the following : A/5950/Rev.1; A/5988 [d]; A/5991/Rev.2 [c]; A/6129; A/C.1/L.347 [g]; A/C.1/900 and Add.1 [e]; A/C.1/L.348 and Rev.1-3 [h]; the verbatim records of the 1392nd to 1394th meetings of the First Committee (A/C.1/PV.1392 to A/C.1/PV. 1394) and the verbatim record of the 1388th meeting (A/PV.1388).

All of the documents and records listed above have already been circulated to all Members of the United Nations, including all members of the Eighteen-Nation Committee on Disarmament.

(*Signed*) U THANT
Secretary-General

[a] Document ENDC/161 of 27 January 1966.

[b] For these documents, see *Official Records of the General Assembly, Twentieth Session, Annexes*, agenda item 106.

[c] For the text, see *Official Records of the General Assembly, Twentieth Session, Supplement No. 14*, p. IX (Allocation of agenda items, First Committee).

[d] For these documents, see *Official Records of the General Assembly, Twentieth Session, Annexes*, agenda item 8.

[e] *Ibid., Twentieth Session, First Committee*, prefatory fascicule, agenda.

[f] Text identical to that of resolution 2028 (XX).

[g] For these documents, see *Official Records of the General Assembly, Twentieth Session, Annexes*, agenda item 28.

[h] *Ibid.*, agenda item 28, document A/6129, paras. 4 to 6.

B

Letter dated 14 January 1966 from the Secretary-General to the Co-Chairmen of the Conference of the Eighteen-Nation Committee on Disarmament, transmitting resolutions 2030 (XX) and 2033 (XX) of the General Assembly [i]

[*Original text : English*]

I have the honour to transmit herewith, for the information of the members of the Eighteen-Nation Committee on Disarmament, the text of resolution 2030 (XX), adopted by the General Assembly at its 1384th plenary meeting on 29 November 1965, on the " Question of convening a world disarmament conference " and the text of resolution 2033 (XX), adopted by the General Assembly at its 1388th plenary meeting on 3 December 1965, on the question of " Declaration of the denuclearization of Africa ".

(*Signed*) U THANT
Secretary-General

[i] Document ENDC/162 of 27 January 1966.

C

Letter dated 26 January 1966 from the Special Representative of the Secretary-General to the Co-Chairmen of the Conference of the Eighteen-Nation Commitee on Disarmament, transmitting the text of a letter to the Secretary-General from His Holiness Pope Paul VI [j]

[*Original text : French*]

On behalf of the Secretary-General, I have the honour to transmit herewith a copy of a letter dated 24 January 1966 to the Secretary-General from his Holiness Pope Paul VI, containing an urgent appeal for disarmament on the occasion of the resumption of the work of the Conference of the Eighteen-Nation Committee on Disarmament.

(*Signed*) P. P. SPINELLI
Special Representative of the Secretary-General to the Conference of the Eighteen-Nation Committee on Disarmament

LETTER DATED 24 JANUARY 1966 ADDRESSED TO THE SECRETARY-GENERAL FROM HIS HOLINESS POPE PAUL VI

You are aware how closely We follow the efforts of the United Nations to promote peace. Now that the Conference of the Eighteen-Nation Committee on Disarmament is to resume its work at Geneva, We wish to address to you an urgent appeal, inspired by the desire to see the work of this Committee culminate in positive and concrete results, and thus mark a new

[j] Document ENDC/163 of 26 January 1966.

advance towards the achievement of disarmament, which is so unanimously awaited and desired. In taking this step, We are encouraged by the position recently adopted by over 2,000 Catholic bishops assembled at Rome at the Oecumenical Council. We are also encouraged by the response in the Disarmament Commission to the appeal We made in Bombay and by the favourable reception by world opinion of Our address to the United Nations. In speaking to advocate the great cause of disarmament, We are conscious that We are faithfully following in the path traced by Our predecessors. To quote only the more recent of these predecessors, you are aware of the lucid approach which Pius XII adopted to the problem from the first war-time Christmas of his Pontificate. In praying for the advent of an order based on law to succeed the ruins of war, he said that, if the order so established was to enjoy tranquility and permanence, which were the foundations of a true peace, the nations must be delivered from the onerous enslavement of the armaments race and from the danger that material force, instead of serving to guarantee right, might become, on the contrary, a tyrannical instrument for the violation of peace terms which did not attach fundamental importance to disarmament reached by mutual agreement, a disarmament that was organic and progressive, both from the practical and the spiritual point of view, and which, since they did not aim at its honest achievement, would sooner or later reveal their inconsistency and precariousness. Justice, right, reason and humanity, Pope John XXIII proclaimed in his memorable encyclical letter *Pacem in Terris*, demand that the arms race should cease, that a general agreement should be reached about disarmament and an effective method of control.

In intervening in Our turn in this sphere, We certainly do not pretend to ignore the complexity of the problem, or to be unaware of the vast difficulties which the United Nations bodies concerned have been facing since their foundation with a resolution and competence to which it is only right to pay a tribute.

There is, however, no denying that, with every day that passes, it is becoming more and more obvious that no lasting peace can be established among men until there has been an effective, general and controlled reduction in armaments. With every day that passes, the contrast also becomes more painful and acute between the huge sums being swallowed up by the manufacture of armaments and the immense and growing material distress of over half the human race, whose most elementary needs remain unsatisfied. We are confident that you will receive this intervention on Our part as a testimony of the esteem in which We hold the authority of the United Nations and the high qualifications of the members of the Eighteen-Nation Committee. We would also ask you to see in it the echo of an ardent hope cherished by the men of today, whose views We believe We can and should convey to you on behalf of the Oecumenical Council that has just been held in Rome. It is in this spirit that We express Our wishes for the complete success of the forthcoming discussions at Geneva and that We call for the blessing of Almighty God on these discussions and on those who are to take part in them.

(Signed) PAUL VI

D

United States of America : message dated 27 January 1966 from President Lyndon B. Johnson to the Conference of the Eighteen-Nation Committee on Disarmament [k]

[*Original text : English*]

The avoidance of war and particulary nuclear war is the central, common concern of all mankind.

My country is dedicated to this end. The effort to control, and reduce — and ultimately eliminate — modern engines of nuclear destruction is fundamental to our policy. We have, with all mankind, a common interest in acting now to prevent nuclear spread, to halt the nuclear arms race, and to reduce nuclear stocks.

For this reason, we must press on with our work in Geneva. It is true that our meeting is shadowed by continuing aggression against the people and Government of South Viet-Nam. There are differences among the members of this Conference on Viet-Nam, but these differences make our common interest in preventing nuclear spread and curbing the nuclear arms race all the more important to pursue. Even while our own nation is engaged in necessary resistance to aggression in South-East Asia, it must continue to pursue every avenue for stable peace, both in Viet-Nam and throughout the world. That great general effort has no more important set of goals than those of disarmament, which are the business of this Conference.

I have instructed the United States delegation to urge upon your meeting the following seven-point programme :

First, let us seek a non-proliferation treaty which, in the words of the United Nations General Assembly is void of any loopholes which might permit nuclear or non-nuclear Powers to proliferate, directly or indirectly, nuclear weapons in any form. We are prepared to sign such a treaty, making it applicable to nuclear and non-nuclear countries alike. We are prepared to work with other countries to assure that no non-nuclear country acquires its own nuclear weapons, gains national control over nuclear weapons, achieves the power itself to fire nuclear weapons, or receives assistance in manufacturing or testing nuclear weapons. We are prepared to agree that these things should not be done directly or indirectly, through third countries or groups of countries, or through units of the armed forces or military personnel under any military alliance.

Secondy, through a non-proliferation treaty and through efforts outside such a treaty, we must continue to secure application of International Atomic Energy Agency or equivalent international safeguards over peaceful nuclear activities. To this end, I urge agreement that all transfers of nuclear materials or equipment for peaceful purposes to countries which do not have nuclear weapons be under IAEA or equivalent international safeguards. At the same time, the major nuclear Powers should accept in increasing measure the same international safeguards they recommend for other states. Recently, many responsible members of both Houses of the Congress of the United States introduced resolutions dealing with measures to prevent the spread of nuclear weapons. These resolutions are an indication of the importance that the people of the United States attribute to such measures, and to the role that international safeguards should play in them. I fully share these views.

Thirdly, so that those who forswear nuclear weapons may forever refrain without fear from entering the nuclear arms race, let us strive to strengthen United Nations and other international security arrangements. Meanwhile, the nations that do not seek the nuclear path can be sure that they will have our strong support against threats of nuclear blackmail.

Fourthly, my country persists in its belief that the perils of proliferation would be materially reduced by an extension of the limited test ban treaty to cover underground nuclear tests. For such an extension, the United States will require only that number and kind of inspections which modern science shows to be necessary to assure that the treaty is being faithfully observed. We call upon those nations truly interested in such a ban to provide to this Committee any improvements in means for the detection and identification of seismic events which their research efforts may have developed.

Fifthly, let us seek agreement not to increase, and indeed to reduce, nuclear materials in weapons stockpiles. The United

[k] Document ENDC/165 of 27 January 1966.

States continues to urge a verified halt in the production of fissionable materials for use in weapons. We continue to urge that such a halt be accompanied by the transfer of large quantities of fissionable material to peaceful purposes, under international safeguards. We continue to urge the demonstrated destruction of thousands of nuclear weapons by the United States and the Soviet Union to produce this fissionable material. We have also stated our willingness, if others cannot now agree to halting all production of fissionable material for use in weapons, to accept step-by-step reductions of such production by the shutting down of equivalent facilities on a plant-by-plant basis, with the same type of effective inspection applicable to all.

Sixthly, as another step to reduce the dangers and burdens of nuclear arms, let us direct our attention to modern, long-range, high-speed carriers of nuclear destruction. I urge continued exploration of the terms and conditions which could make acceptable to all the proposal I put before you in 1964 for a freeze on offensive and defensive strategic bombers and missiles designed to carry nuclear weapons [l]. If progress can be made here, the United States will be prepared to explore the possibility of significant reductions in the number of these delivery vehicles. To facilitate agreement, let us begin now to seek common understanding of some of the issues involved in both these proposals.

Seventhly, as we focus on nuclear arms, let us not forget that resources are being devoted to non-nuclear arms races all around the world. These resources might better be spent on feeding the hungry, healing the sick and teaching the uneducated. The cost of acquiring and maintaining one squadron of supersonic aircraft diverts resources that would build and maintain a university. We suggest therefore that countries, on a regional basis, explore ways to limit competition among themselves for costly weapons often sought for reasons of illusory prestige. The initiative for arrangements of this kind should, of course, come from the regions concerned. The interested countries should undertake not to acquire from any source, including production of their own as well as importation from others, military equipment which they proscribe. If such arrangements can be worked out and assurance can be given that they will be observed, the United States stands ready to respect them.

Each of these steps would contribute toward reducing the danger and destruction of war. Each of them would take us further down the path toward our ultimate goal of general and complete disarmament. Yet each of them can be achieved today if only all nations have the will.

The limited test ban treaty lit a candle of hope in the darkness. The gleam of that candle shows the way to a brighter tomorrow if we will but follow. We must move toward it quickly while there is yet time.

E

United Kingdom of Great Britain and Northern Ireland : message dated 27 January 1966 from Prime Minister Harold Wilson to the Conference of The Eighteen-Nation Committee on Disarmament [m]

[Original text : English]

The Conference of the Eighteen-Nation Committee on Disarmament is resuming its activities at a time when, more than ever before, the world community stands in need of, and urgently expects, progress towards the great objective of arms control and disarmament. The British Government consequently welcomes the fact that the Committee has agreed to resume its work so soon after the conclusion of the disarmament debate in the United Nations General Assembly.

By the resolutions adopted at the recent session of the United Nations General Assembly, the nations demonstrated their support for and trust in the Committee. That they did so must be a matter of deep satisfaction to all delegations; it will also I hope be a spur to renewed efforts in the months ahead. The British Government pledges itself to co-operate untiringly in the search for progress.

In accordance with the wishes expressed by the General Assembly of the United Nations at its twentieth session, the Committee will be giving urgent consideration to the working out of an agreement to prevent the further spread of nuclear weapons. This is by general agreement the most pressing need in the disarmament field. I trust that the two draft non-proliferation treaties before the Committee will provide a basis for serious negotiation in order to resolve the differences that stand in the way of agreement.

The Committee will also continue its search for agreement on arrangements to ban nuclear tests in all environments. This would not only be a most valuable achievement in itself, but would also make a vital contribution to our efforts to prevent the further spread of nuclear weapons.

The coming session will, I hope, be marked by fresh efforts to find a basis for a start on real disarmament and also by progress towards a solution of the complex problems involved in an agreement for general and complete disarmament.

I send the Committee my best wishes for a constructive and fruitful session.

F

Union of Soviet Socialist Republics : message dated 1 February 1966 from A. Kosygin, Chairman of the Council of Ministers of the USSR, to the Conference of the Eighteen-Nation Committee on Disarmament [n]

[Original text : Russian]

On behalf of the Soviet Government, I convey our greetings and wishes for success to the Conference of the Eighteen-Nation Committee on Disarmament on the occasion of the resumption of its work.

More than forty years ago, on the initiative of V. I. Lenin, the Soviet Union set as a pressing international aim the accomplishment of universal disarmament in order to ensure peace and friendship among nations. True to Lenin's precepts, the Soviet Government has submitted for the Committee's consideration a specific programme for general and complete disarmament, which provides for the complete elimination of armaments and armed forces. It was due to the initiative of the Soviet Union that the General Assembly of the United Nations adopted a resolution on an economic disarmament programme which would make it possible to increase the well-being of all the peoples of the world within a short period of history and would enable countries and peoples which are lagging behind as a result of colonialism to overcome their economic backwardness and to attain the level of modern civilization. That wide disarmament programme is still our programme today and we are sure that, in the struggle against the forces of militarism and aggression, it will become the banner of an ever-increasing number of people who really cherish peace and progress.

Unfortunately, the Committee has not succeeded in achieving any serious results during the period of its existence. The States

[l] See *Official Records of the Disarmament Commission, Supplement for January to December 1964*, document DC/209, annex I, sect. B.

[m] Document ENDC/166 of 28 January 1966.

[n] Document ENDC/167 of 3 February 1966.

members of the NATO military-political bloc which are taking part in the Committee's work have not given the Committee a chance to make any progress. However, this should not deprive the States which really want disarmament of their determination to achieve this aim and to continue their struggle both for general and complete disarmament and for the implementation of collateral measures which would clear the way to disarmament.

The Soviet Government would like once again to draw the attention of the members of the Committee to the severe ordeals which the world is undergoing at the present time. For a long time now, the flames of war have been raging in Vietnam, whose freedom-loving people have become the victims of imperialistic intervention which is also threatening the adjacent countries. The aggression in Vietnam is an aggression against all countries and peoples that are defending their freedom and independence and their sovereign right to build their lives according to their own wishes, without any outside interference whatsoever.

The ideas of peace and disarmament are incompatible with a policy of armed interference in the affairs of other countries and peoples. Militarism turns to destructive purposes what might be used for the advancement of mankind and destroys the results of the labour of millions of people.

The Soviet Union, consistently pursuing a policy aimed at consolidating peace and achieving disarmament, has on this occasion also come to the Committee with a specific programme of measures designed to free present and future generations from the burden of armaments.

In the forefront of the work of the Committee at present is the task of accomplishing a series of measures relating to nuclear disarmament.

The Soviet Government insists on the need for the immediate conclusion of an agreement on the non-proliferation of nuclear weapons. Unless an end is put to the proliferation of nuclear weapons throughout the world, the danger of the outbreak of a nuclear war will increase many times over. Yet there are plans for such a proliferation, although they are camouflaged by professions of peaceful intentions. These plans provide for giving access to nuclear bombs to the militarists and revanchists of the Federal Republic of Germany, which openly sets as the main object of its policy the revision of the existing European frontiers and the annexation of the territory of other countries. The peoples, especially the peoples of Europe, are too well aware of the adventurist nature of the German militarists to reconcile themselves to these dangerous plans.

The draft agreement on the non-proliferation of nuclear weapons which the Soviet Union has submitted to the Committee [*] is permeated with a single aim, namely, to block all paths to the further spread of nuclear weapons. It is fully in keeping with resolutions which were adopted by the General Assembly of the United Nations and which expressed the will of the peoples. In order to facilitate agreement on the conclusion of a treaty, the Soviet Government declares its willingness to include in the draft treaty a clause on the prohibition of the use of nuclear weapons against non-nuclear States parties to the treaty which have no nuclear weapons in their territory.

The Soviet Government fully supports the proposal of the Polish People's Republic to establish a denuclearized zone in Central Europe and to freeze nuclear armaments in that area, as well as proposals to establish denuclearized zones in other parts of the world. It is prepared to assume an obligation to respect the status of any denuclearized zones which may be established provided that other nuclear Powers assume similar obligations.

Three years will soon have passed since the conclusion of the Treaty banning nuclear tests in the atmosphere, in outer space and under water. The Soviet Government declares its willingness to reach agreement immediately on the prohibition of underground nuclear tests as well, on the basis of the use of national systems of detection for control over such prohibition.

The time has also come to outlaw the use of nuclear weapons. The General Assembly of the United Nations adopted such a resolution several years ago, when it condemned the use of nuclear weapons as a crime against humanity and called for the conclusion of a special convention. The Soviet Union is prepared to assume immediately an obligation not to be the first to use nuclear weapons, provided that the other nuclear Powers do likewise.

The present world situation also urgently calls for solution of the problem of the elimination of foreign military bases and the withdrawal of foreign troops from the territories of other countries. The events which are now taking place in the world convincingly show that foreign military bases and armed forces in the territories of other countries represent a serious threat to world peace. These bases, which as a rule comprise nuclear weapons, greatly increase the danger of the outbreak of a nuclear war. The establishment of these bases and the stationing of foreign troops in the territories of other countries are indissolubly linked with the preparation and carrying out of military adventures, with the suppression of national liberation movements and with attempts to stifle the freedom and independence of nations. The Soviet Union is of the opinion that the Committee should consider the question of the complete elimination of foreign military bases and the withdrawal of troops from foreign territories, so as to rid the world of these dangerous hotbeds of war, colonialism and aggression.

In order really to put an end to the danger of a nuclear war and to the nuclear armaments race, the Soviet Government proposes that the nuclear Powers should consider the question of carrying out immediately the programme relating to nuclear disarmament. Such disarmament must provide for the destruction, under appropriate international control, of all stockpiles of nuclear weapons accumulated by States, the prohibition of their manufacture, the complete destruction of all nuclear weapon delivery vehicles and the prohibition of their production, and the elimination of military bases in foreign territories. Only such measures, not the elimination of only a few atomic and hydrogen bombs from the vast stockpiles accumulated by States, can free the peoples from the threat of a nuclear war.

We must bear in mind the fact that the high-sounding phrases about disarmament uttered by certain Governments are scarcely, if at all, compatible with the policy which they are actually carrying out. These governments speak of disarmament and at the same time are increasing their military budgets, fostering war psychosis and creating ever greater international tension in the world situation. The Soviet Government considers that one of the most important tasks of the Disarmament Committee should be to work out effective measures which would lead to the reduction of the military budgets of States and, in conjunction with other similar measures, would help to normalize relations between nations.

In submitting for the Committee's consideration these constructive and thoroughly well-pondered proposals, the Soviet Government bases itself on the assumption that they could serve as a basis for further progress along the path towards disarmament.

The Soviet Union, like other peace-loving countries, is fully determined to continue the struggle against aggression and for the strengthening of peace, national freedom and independence and the peaceful co-existence of States, irrespective of their social systems. On this basis, we shall take an active part in the work of the Committee. Our representatives have been instructed to defend the position of the Soviet firmly and to

[*] See *Official Records of the General Assembly, Twentieth Session, Annexes*, agenda item 106, document A/5976.

explain it patiently. At the same time, they will be prepared to study and to take into consideration without prejudice the proposals of any other delegation, if these proposals are really aimed at furthering the case of disarmament.

Through joint efforts, the nations can and must succeed in putting an end to aggression, relaxing international tension, and solving the problems of disarmament.

(*Signed*) A. KOSYGIN
Chairman of the Council of Ministers of the USSR

G

Union of Soviet Socialist Republics : aide-mémoire dated 16 February 1966 from the Soviet Government to the Government of the United States of America [p]

[*Original text: Russian*]

1. According to official statements of the United States Government and reports in the Press, a United States B-52 bomber carrying nuclear weapons crashed on 17 January 1966 over the Spanish coast. As a result of this accident, four hydrogen bombs, each of them a hundred times more powerful than the bomb dropped on Hiroshima and Nagasaki, fell on Spanish territory and the coastal waters of the Mediterranean Sea. The detonator of at least one of these bombs exploded, and radioactive substances were released. There is a danger of radioactive contamination also from the other hydrogen bomb, which is lying at the bottom of the Mediterranean Sea. A large and densely populated area is threatened with radioactive contamination. Naturally, the peoples are profoundly pertubed by all these facts.

2. The Soviet Government draws attention to the fact that the activities which have resulted in the aforesaid events are at variance with the generally accepted principles and standards of international law and with those obligations which the United States Government has assumed under international treaties and agreements in force, and, in particular, under the Treaty banning nuclear weapons tests in the atmosphere, in outer space and under water, signed at Moscow in 1963. As is well known, the principal aim of that Treaty was to prevent the radioactive contamination of the atmosphere, of outer space and of the waters, of our planet. Accordingly, the parties to the Moscow Treaty, including the United States, declared their determination " to put an end to the contamination of man's environment by radioactive substances ". Yet the southern coast of Spain, and also the adjacent maritime waters, have now been exposed to radioactive contamination from United States nuclear weapons.

3. The contamination of the sea cannot be confined to Spanish coastal waters, which are not isolated from the waters of the high seas. A very real threat of contamination of the high seas has been created, which is contrary to the principle governing the high seas long since established in international relations. Thus the 1958 Convention on the High Seas, signed and ratified by the United States, which requires each State to take measures " for the prevention of pollution of the seas or air space above, resulting from any activities with radioactive materials or other harmful agents ", has been violated. How did all this come about? It may be said to have been a mere accident. But it is permissible to put the question : What kind of policy is this, what kind of activities of the military authorities are these, which lead to such dangerous accidents? It is enough to put this question to perceive that the practice itself of flights by United States aircraft carrying nuclear weapons over the territory of other countries and over the high seas involves the possibility of such consequences. No one can guarantee that if such flights continue, similar consequences can be excluded in the future.

4. United States Government officials have themselves repeatedly referred to the danger of a war breaking out as a result of miscalculation or an incident; yet the flights of United States bombers with nuclear weapons on board involve the danger of precisely such a situation.

5. The Soviet Government has repeatedly warned the United States Government of the dangers connected with the flights of bombers carrying nuclear weapons. The United States Government, however, has not heeded these warnings, and the flights of United States aircraft continue as before. What happened over Spain shows how well-founded were the warnings given by the Soviet Union.

6. What must be done in order to preclude any possibility of a repetition of such dangerous incidents?

7. It is quite clear that for this purpose it is necessary to put an end to flights by aircraft with nuclear and hydrogen bombs beyond the limits of national borders. The flights are a danger above all for the peoples of those countries whose governments permit the United States to use their air space for such purposes, countries which are enmeshed in the trammels of military obligations towards the United States. In addition, the activities of the United States create a threat to the safety also of the peoples of other countries. The fact that some governments are prepared to reconcile themselves to such flights does not alter the situation in the slightest. It is inadmissible that the safety of many peoples, not to mention the peoples of their own countries, should depend on certain governments that give their consent to such flights.

8. In drawing the United States Government's attention to all the foregoing, the Soviet Government considers that the immediate discontinuance of flights by aircraft carrying nuclear weapons beyond the limits of national borders and the strict observance of the international agreements prohibiting the radioactive contamination of man's environment answer to the interests of the prevention of dangerous accidents likely to involve grave consequences for peoples, and to the interests of peace.

H

United States of America : aide-mémoire dated 25 February 1966 from the Government of the United States in reply to the aide-mémoire dated 16 February 1966 from the Soviet Government [q]

[*Original text: English*]

1. The Government of the United States rejects the allegations made by the Soviet Government in its aide-mémoire of 16 February 1966. The Government of the USSR must be aware — or could easily have ascertained — that no nuclear weapon test, no nuclear explosion of any kind, and no radioactive pollution of the sea were involved in the unfortunate accident over the coast of Spain. Consequently, there is no question of a " violation " or of " actions in conflict with " either the Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water, or the 1958 Geneva Convention on the High Seas, or of the principle of freedom of the high seas. Accusations to this effect by the Soviet Government are therefore without any foundation.

2. It is common knowledge that flights of United States military aircraft are carried out with the agreement of nations of the free world and for express purpose of reinforcing their collective security against the threat posed by the huge nuclear forces of the Soviet Union, including its many bomber aircraft.

[p] Document ENDC/169 and Corr.1 of 17 February 1966.

[q] Document ENDC/170 of 28 February 1966.

Our policies and practices designed to meet this nuclear threat have been adopted only after the most careful assessment of security requirements and after provision of necessary safeguards.

3. It is not surprising that the Government of the USSR is opposed to military security measures undertaken in defense against the threat of its armed power, or that it should attempt to limit or reduce such defence. It is, however, a matter of deep regret that the Soviet Union should be willing to distort the meaning of international treaties to suit the purpose of a propaganda campain to that end. It seems clear that if the Soviet Government had been genuinely concerned about possible violations of international agreements and law, it would have requested, and awaited, a reply and clarification from the United States Government instead of resorting to tactics designed to advance purely propaganda objectives.

I

Ethiopia : message from His Imperial Majesty Haile Selassie I to the Conference of the Eighteen-Nation Committee on Disarmament [f]

[*Original text: English*]

We have learnt that His Excellency the Chairman of the Council of Ministers of the U.S.S.R. has addressed a message to your Commission signifying the willingness of the U.S.S.R. Government to engage itself not to be the first to use nuclear weapons against non-nuclear States parties to the treaty, which have no nuclear weapons in their territory and accordingly requesting other nuclear Powers to do the same. We have also learnt that the President of the United States has declared to the nations that do not seek the nuclear path an assurance that they will have the strong support of the United States against nuclear blackmail, and has proposed strengthening the United Nations and other international security arrangements. In view of the fact that the present nuclear possession and proliferation could be a serious danger to the security of mankind, we believe that such a commitment against the threat or use of nuclear weapons, by all nuclear Powers, would help to make a great step forward in the attempt to reach an agreement on disarmament.

We therefore appeal to the Committee to give serious consideration to the proposal to having a joint resolution to include all the nuclear Powers in accordance with the principles set out by the United Nations resolution for a non-proliferation treaty.

J

United States of America : working paper on transfer of fissionable material obtained by the destruction of nuclear weapons [g]

I. *Introduction*

1. This paper describes the destruction of nuclear weapons and transfer of contained fissionable material to peaceful uses under international safeguards.

2. This proposal for the destruction of nuclear weapons is linked to the United States proposal for a cutoff of production of fissionable materials for use in weapons, and would implement the transfer of fissionable material from past production to peaceful purposes.

3. The illustrative quantities of U-235 of weapons grade discussed before the Committee on 13 February 1964 (ENDC/PV.166) are reaffirmed by the United States. In addition, the plutonium contained in the destroyed weapons would also be transferred to peaceful uses.

II. *Nature of destruction*

4. The United States of America and the Union of Soviet Socialist Republics would each agree to transfer highly enriched uranium [h] and plutonium obtained from nuclear weapons destroyed for that purpose to peaceful purposes under IAEA or similar safeguards.

5. The United States of America would destroy a sufficient number of nuclear weapons to obtain 60,000 kg of U-235, and the Union of Soviet Socialist Republics would destroy a sufficient number of nuclear weapons to obtain 40,000 kilograms of U-235 for this transfer.

6. Plutonium from the destroyed weapons in the amount of not less than . . . kg on the part of the United States and not less than . . . kg on the part of the USSR would be obtained from this transfer. (Actual amounts to be determined and inserted during negotiations.)

7. The nuclear weapons to be destroyed would be transported to designated depots for disassembly, removal of fissionable material, and destruction of the remaining components. The destruction of these weapons would be demonstrated to nationals of both parties and to neutral observers in accordance with arrangements for such demonstration set forth in a Technical Annex to the document of agreement. To be acceptable, demonstration procedures whould not compromise information classified in the interest of the national security of the participants or be likely to lead to the proliferation of nuclear weapons technology.

8. The participation of other nuclear Powers would be invited, but such participation would not be considered essential to the initial agreement presented above.

K

United States of America : amendments [i] to the United States draft treaty to prevent the spread of nuclear weapons [j]

[*Original Text: English*]

Replace Articles I, II et IV of the draft treaty by the following text:

Article I

Each of the nuclear-weapon States party to this Treaty undertakes:

1. Not to transfer nuclear weapons into the national control of any non-nuclear-weapon State, or into the control of any association of non-nuclear-weapon States.

2. Not to provide to any non-nuclear-weapon State or association of such States:

(*a*) assistance in the manufacture of nuclear weapons, in preparations for such manufacture, or in the testing of nuclear weapons; or

(*b*) encouragement or inducement to manufacture or otherwise acquire its own nuclear weapons.

3. Not to take any other action which would cause an increase in the total number of States and associations of States having control of nuclear weapons.

4. Not to take any of the actions prohibited in the preceding paragraphs of this Article directly, or indirectly through third

[f] Document ENDC/171 of 1 March 1966.
[g] Document ENDC/172 of 8 March 1966.
[h] A minimum assay of ... % by weight would be counted towards the agreed quantities according to the amount of U-235 contained in the metal.
[i] Document ENDC/152 of 17 August 1965. (See *Official Records of the Disarmament Commission, Supplement for January to December 1965*, document DC/227, annex I, sect. A.)
[j] Document ENDC/152/Add.1 of 21 March 1966.

States or associations of States, or through units of the armed forces or military personnel of any State, even if such units or personnel are under the command of a military alliance.

Article II

Each of the non-nuclear-weapon States party to this Treaty undertakes:

1. Not to manufacture nuclear weapons, and not to seek or to receive the transfer of nuclear weapons into its national control or into the control of any association of non-nuclear-weapon States of which it is a member.

2. Not to seek or receive, and not to provide, whether alone or in any association of non-nuclear-weapon States :

(*a*) assistance in the manufacture of nuclear weapons, in preparations for such manufacture, or in the testing of nuclear weapons; or

(*b*) encouragement or inducement to manufacture or otherwise acquire its own nuclear weapons.

3. Not to take any other action which would cause an increase in the total number of States and associations of States having control of nuclear weapons.

4. Not to take any of the actions prohibited in the preceding paragraphs of this Article directly, or indirectly through third States or associations of States, or through units of its armed forces or its military personnel, even if such units or personnel are under the command of a military alliance.

Article IV

In this treaty:

(*a*) " Nuclear-weapon State " means a State controlling nuclear weapons as of . . . (date).

(*b*) " Non-nuclear-weapon State " means any State which is not a nuclear-weapon State."

(*c*) " Control " means right or ability to fire nuclear weapons without the concurrent decision of an existing nuclear-weapon State.

(*d*) " Nuclear weapon " means . (definition to be supplied).

L

United States of America : working paper on an inspection method for verifying the status of shutdown plutonium production reactors [*]

[*Original text: English*]

I. *Introduction*

1. This paper describes technical aspects of one possible method of determining that reactors for the production of plutonium that are shutdown in compliance with an arms control of disarmament agreement have remained so between visits of inspectors. This method is presented as an example and is intended to encourage discussion of this and other possible methods for such verification.

II. *Description of the technique*

2. The shutdown monitoring system basically includes four simple concepts:

(*a*) Target material placed in a reactor case will become radioactive in the event of reactor operation.

(*b*) A wire or tape fixes the position of the target material within the reactor so as to be subject to the reactor's neutron flux, if any.

(*c*) The tape is so fabricated that it is unique and hence any substitution of the tape can be detected.

(*d*) An exterior seal at each end of the channel provides the inspection team assurance that the wire or tape will have remained in its fixed position between inspections.

3. In the system, the target material, e.g. cobalt, is contained within the wire or tape. The latter is designed to reveal any attempt to break and rejoin it. Special fittings have been designed to enhance the integrity of the juncture of the safing band and the exterior seal or seals.

4. An international inspection team of two professional-level and two technician-level specialists can install the system without damage to the reactor given about one week's access to the operating face or faces of the reactor. Return inspections, spaced several months apart and involving checking of seals and replacement of some of the monitor-tapes, can be carried out in one or two days.

5. The target material will be activated approximately linearly with exposure to neutrons. The radioactivity, if any, can be read with standard radiation detection meters.

6. The in-reactor safing bands establish a known fixed location for the neutron detector material within the reactor core. To insure that removal would be detected, any attempt to repair a break or cut in the band must be discernible to the inspection team.

7. The primary revice developed for this purpose is a bimetallic wire formed by the co-extrusion of a jacket material over a lower-melting-point core material. The latter is introduced in wire form together with small quantities of other materials in finer wires. The materials used are natural cobalt for neutron sensitivity and tugsten for X-ray opaqueness. The co-extruded wire is flattened to a tape a few millimeters thick. An X-ray pattern of the random orientation of the fine tungsten strands within the band produces a " fingerprint ". The different melting points of the core and the jacket of the bimetallic band will cause flaws to be introduced if repair of cuts is attempted.

8. The function of the exterior seals is to provide assurance that the safing band could not be removed in its entirety without costly disassembly of the reactor itself. A proper choice of location for installing the safing tape can maximize the effort that would be required to disassemble the reactor core.

9. The concept employed is that of enclosing randomly oriented metallic particles in the exterior seals in a three dimensional form not subject to reproduction. A seal is formed by mixing the powder and catalyst of a commercially available epoxy resin. The syrupy translucent material is then formed around metal turnings and other random particles. The " fingerprint " of the epoxy seal is recorded by photography and radiography from two or more aspects. Before and after photographs and radiographs are compared to determine that the seal has not been tampered with.

10. The host nation would provide a liner tube of reasonably noncorrosive metal extending completely through the reactor core and protuding a few centimeters beyond the exterior hardware of both process faces. This provides protection to the reactor and facilitates installation of safing bands, seals, and a flat safing plate " washer " at each end of the tube. The washer covers the area of the surrounding lattice positions radially in each direction and protects the reactor face as well as provides an orientation base for the seal and subsequent photographs and radiographs of it.

11. Other variations of safing bands and seals are feasible and worthy of consideration as are quite different verification techniques. It is believed, however, that the techniques described can serve as an adequate example of a solution to the problem of verification of shutdown production reactors.

[*] Document ENDC/174 of 14 April 1966.

M

Canada: prevention of the spread of nuclear weapons [a] Tabular comparison of the United States draft treaty to prevent the spread of nuclear weapons [b] and the USSR draft treaty on the non-proliferation of nuclear weapons [c]

[*Original text: English*]

USA DRAFT TREATY	A AGREED TEXT	USSR DRAFT TREATY
The Parties to this Treaty, Desiring to promote international peace and security, Desiring in particular to refrain from taking steps which will extend and intensify the arms race, Believing that the further spread of nuclear weapons will jeopardize these ends, Recalling that resolution 1665 (XVI) of the General Assembly of the United Nations urges all States to co-operate for these purposes, Desiring to achieve effective agreements to halt the nuclear arms race, and to reduce armaments, including particularly nuclear arsenals, Reaffirming their determination to achieve agreement on general and complete disarmament under effective international control, Have agreed as follows:		The States concluding this Treaty hereinafter referred to as " the Parties to the Treaty ", Considering the devastation that would be visited upon al mankind by a nuclear war and the consequent need to make every effort to avert the danger of such a war and to take measures to safeguard the security of peoples, In conformity with the resolutions of the United Nations General Assembly calling for the conclusion of an agreement on the prevention of the wider dissemination of nuclear weapons, Desiring the earliest possible attainment of agreement on the complete prohibition and elimination of all types of nuclear weapons within the framework of general and complete disarmament under strict international control, Desiring to further the easing of international tension and the strengthening of trust between States, thus facilitating the conclusion of a treaty on general complete disarmament, Have agreed as follows :
Article I Each of the nuclear-weapon States party to this Treaty undertakes: 1. Not to transfer nuclear weapons into the national control of any non-nuclear-weapon State, or into the control of any association of non-nuclear-weapon States. 2. Not to provide to any non-nuclear-weapon State or association of such States: (*a*) assistance in the manufacture of nuclear weapons, in preparations for such manufacture, or in the testing of nuclear weapons; or (*b*) encouragement or inducement to manufacture or otherwise acquire its own nuclear weapons. 3. Not to take any other action which would cause an increase in the total number of States and associations of States having control of nuclear weapons. 4. Not to take any of the actions prohibited in the preceding paragraphs of this Article directly, or indirectly through third States or associations of States, or through units of the armed forces or military personnel of any State, even if such units or personnel are under the command of a military alliance.		*Article I* 1. Parties to the Treaty possessing nuclear weapons undertake not to transfer such weapons in any form — directly or indirectly, through third States or groups of States — to the ownership or control of States or groups of States not possessing nuclear weapons and not to accord to such States or groups of States the right to participate in the ownership, control or use of nuclear weapons. The said Parties to the Treaty shall not transfer nuclear weapons, or control over them or over their emplacement and use, to units of the armed forces or military personnel of States not possessing nuclear weapons, even if such units or personnel are under the command of a military alliance. 2. Parties to the Treaty possessing nuclear weapons undertake not to provide assistance — directly or indirectly, through third States or groups of States — to States not at present possessing nuclear weapons in the manufacture, in preparations for the manufacture or in the testing of such weapons and not to transmit to them any kind of manufacturing, research or other information or documentation which can be employed for purposes of the manufacture or use of nuclear weapons.
Article II Each of the non-nuclear-weapon States party to this Treaty undertakes:		*Article II* 1. Parties to the Treaty not possessing nuclear, weapons undertake not to create, manufacture or pre-

[a] Document ENDC/175 of 5 July 1966.

[b] ENDC/152 and ENDC/152/Add.1. (See *Official Records of the Disarmament Commission, Supplement for January to December 1965*, document DC/227, annex I, sect. A; and see sect. K, above, for amendments thereto.)

[c] ENDC/164. (See *Official Records of the General Assembly, Twentieth Session, Annexes*, agenda item 106, document A/5976.)

1. Not to manufacture nuclear weapons, and not to seek or to receive the transfer of nuclear weapons into its national control or into the control of any association of non-nuclear-weapon States of which it is a member.

2. Not to seek or receive, and not to provide, whether alone or in any association of non-nuclear-weapon States:

(*a*) assistance in the manufacture of nuclear weapons, in preparations for such manufacture, or in the testing of nuclear weapons, or;

(*b*) encouragement or inducement to manufacture or otherwise acquire its own nuclear weapons.

3. Not to take any other action which would cause an increase in the total number of States and associations of States having control of nuclear weapons.

4. Not to take any of the actions prohibited in the preceding paragraphs of this Article directly, or indirectly through third States or associations of States, or through units of its armed forces or its military personnel, even if such units or personnel are under the command of a military alliance.

Article III

Each of the States party to this Treaty undertakes to co-operate in facilitating the application of International Atomic Energy Agency or equivalent international safeguards to all peaceful nuclear activities.

Article IV

In this treaty

(*a*) " Nuclear-weapon State " means a State controlling nuclear weapons as of ..... (date)

(*b*) " Non-nuclear-weapon State " means any State which is not a " nuclear weapon-State ".

(*c*) "Control " means right or ability to fire nuclear weapons without the concurrent decision of an existing nuclear-weapon State.

(*d*) " Nuclear weapon " means ..... (definition to be supplied).

pare for the manufacture of nuclear weapons either independently or together with other States, in their own territory or in the territory of other States. They also undertake to refrain from obtaining nuclear weapons in any form — directly or indirectly, through third States or groups of States — for purposes of ownership, control or use and shall not participate in the ownership, control or use of such weapons or in testing them.

The said Parties to the Treaty shall not seek to acquire control over nuclear weapons or over their emplacement and use for units of their armed forces or personnel thereof, even if such units or personnel are under the command of a military alliance.

2. Parties to the Treaty not possessing nuclear weapons undertake not to obtain or seek to obtain, from States possessing nuclear weapons, assistance in the manufacture of such weapons or relevent manufacturing, research or other information or documentation which can be employed for purposes of the manufacture or use of nuclear weapons.

Article III

The Parties to this Treaty shall refrain from offering any support, encouragement or inducement to States seeking to own, manufacture or exercise control over nuclear weapons.

Article IV

1. Any Party may propose amendments to this Treaty. The text of any proposed amendment shall be submitted to the Depositary Governments, which shall circulate it to all Parties to the Treaty. Thereupon, if requested to do so by one third or more of the Parties, the Depositary Governments shall convene a conference, to which they shall invite all the Parties, to consider such amendment.

2. Any amendment to this Treaty must be approved by a majority of the votes of all the Parties to the Treaty, including the votes of all Parties possessing nuclear weapons. The amendment shall enter into force for all Parties upon the deposit of instruments of ratification by a majority of all the Parties, including the instruments of ratification of all Parties possessing nuclear weapons.

Article V

1. This Treaty shall be open to all States for signature. Any State which does not sign this Treaty before its entry into force in accordance with paragraph 3 of this Article may accede to it any time.

2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the United Kingdom of Great Britain and Northern Ireland, the Union of Soviet Socialist Republics, and the United States of America, which are hereby designated the Depositary Governments.

3. This Treaty shall enter into force on the deposit of instruments of ratification by ..... (a certain number of) Governments, including those of the United Kingdom of Great Britain and Northen Ireland, the Union of Soviet Socialist Republics, and the United States of America.

4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification of and accession to this Treaty, and the date of its entry into force.

6. This Treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

Article VI

1. This Treaty shall remain in force indefinitely subject to the right of any Party to the Treaty to withdraw from the Treaty if it decides that extraordinary events related to the subject matter of the Treaty have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other signatory and acceding States and to the United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.

2. ..... years after the entry into force of this Treaty, a conference of parties may be held at a date and place to be fixed by agreement of two-thirds of the Parties in order to review the operation of the Treaty.

Article VII

This Treaty, of which the Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Treaty shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

In witness whereof the undersigned, duly authorized, have signed this Treaty.

Done in triplicate at the city of ....., the ..... day of ....., one thousand nine hundred and .....

Article V

1. This Treaty shall be open to all States for signature. Any State which does not sign the Treaty before its entry into force in accordance with paragraph 3 of this Article may accede to it at any time.

2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Government of ..... which are hereby designated the Depositary Governments.

3. This Treaty shall enter into force after its ratification by all Parties possessing nuclear weapons and the deposit of their instruments of ratification.

4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification of or accession to this Treaty, the date of its entry into force, and the date of receipt of any requests for conferences or other notices.

6. This Treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

Article VI

This Treaty shall be of unlimited duration,

Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty three months in advance.

Article VII

This Treaty, the Russian, English, French, Spanish and Chinese texts of which are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Treaty shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

In witness whereof the undersigned, duly authorized, have signed this Treaty.

Done in ..... copies ath the city of ..... on the ..... day of .....

N

United States of America: description of a monitoring system for shutdown nuclear reactors [aa]

SCRIPT OF A BRIEFING GIVEN BY A UNITED STATES EXPERT TO THE MEMBERS OF THE CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT AT THE UNITED STATES MISSION ON 10 AUGUST 1966

[*Original text: English*]

1. I have been requested to describe to you the system developed within the United States of America for effectively and unobtrusively monitoring a shutdown nuclear reactor and ascertaining that it has not been operated between infrequent periodic inspections. The system I will describe is one which the United States suggests will satisfactorily perform the desired degree of surveillance with a minimum of intrusion.

2. The monitoring of a shutdown reactor is possible with an inspection system which utilizes a completely passive device, which once installed may remain in place for years, unless removed for an inspection.

3. Selection of the word " passive " in describing the monitoring system serves primarily to indicate the manner in which the system operates. Passive means that it does not require operation in the sense of moving parts, electronic instrumentation, attachments, and other devices subject to malfunctions which might adversely affect the integrity of the monitoring system. Passive may also properly describe the other advantages of the method, since the entire system is inoffensive, unobtrusive, makes no permanent attachments, nor in any way affects the integrity of future use of the facility.

4. The reactor monitoring system is based on the ability to detect and measure neutrons generated by an operating reactor. Detection utilizes the effect of a neutron on a material which captures the neutron. The operation of a nuclear reactor generates a tremendous quantity of neutrons in the core. For clarification, slide 1 provides a graphic representation of a fission reaction, with a neutron particle released from the nucleus of an atom, such as uranium 235. The ragged lines indicate the path of a fast neutron through a moderating material, gradually slowing down to a point where it is captured, in one case by an atom of uranium 238, which is subsequently altered to plutonium 239. Another neutron wanders a similar path and is captured by another atom of uranium 235, causing it to fission. This generates more neutrons for continuation of the reaction. Into this situation we have introduced a safing wire, or tape, for the purpose of detecting whether there has been any neutron activity. This shows in the upper right hand corner of the slide. A small amount of cobalt in the tape captures some of the neutrons, converting the natural cobalt 59 to cobalt 60. We use cobalt because it is a good material for capturing neutrons. In addition, cobalt 60 has a half life of five and one-half years. This means that its emission of high energy gamma rays will not be significantly altered during the periods the tape is apt to be left in place. The telltale gamma rays are the key to this monitoring system. Thus, small quantities of cobalt inserted in a sufficient number of locations can effectively monitor an entire reactor, or any part of it large enough to sustain a nuclear reaction.

5. The method of fabricating the tape is shown in slide 3. Two cobalt alloyed aluminum wires and two thin tantalum wires are inserted through a stainless steel tube. Only one-tenth of 1 per cent cobalt in an aluminum alloy is necessary. Note in the slide how the tentalum wire is twisted and looped back on itself. The reason for this is to produce a random configuration of the tantalum wire throughout the length of the tape. The assembly is then rolled and flattened to the thin rectangular shape shown below the tube assembly. Slide 4 illustrates how a complete length of tape is rolled on a cardboard drum for handling and for " fingerprinting ", that is, obtaining an X-ray photograph of the tape. Slide 5 is a section of the X-ray taken of the tape as coiled on the drum I have just shown. This X-ray provides the record against which each centimeter of tape can be checked for identity and damage. This image or " fingerprint " illustrates the primary means by which we identify system components and determine any tampering with various parts of the safing system. The stainless jacket has a high melting temperature. The aluminum core has a low melting temperature. The bi-metallic combination of the two provides additional assurance against a successful compromise of the system.

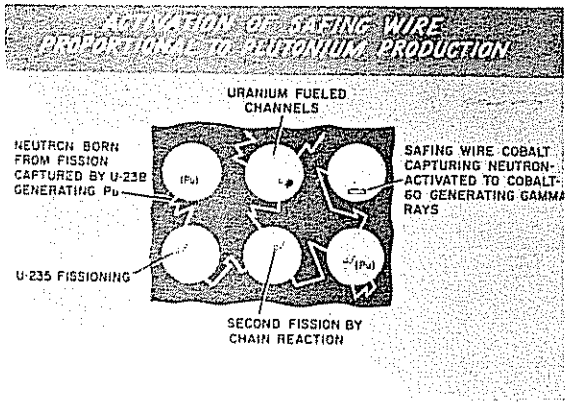
6. The safing tape may be installed in fuel channels, such as shown in slide 6, core coolant tubes, control rod thimbles, or other penetrations of the reactor core which are an integral part of the reactor. In utilizing the system, the host nation will provide a liner tube which will be inserted in agreed upon locations. This liner protects the reactor components from any deleterious effects, such as corrosion from the safing tape, and also protects the tape from surface contamination, corrosion, or other damage. The end seal connected to the safing tape is illustrates the X-ray of the seal assembly and clearly shows the exploded view in slide 8. Here we see an additional protective liner inserted in the host liner tube. It may also be fabricated to have its own unique " fingerprint ".

7. The safing tape is pulled through the aluminum plate and clamped securely in place with a collet or clamp. The plastic cap assembly is then installed over the clamp. Pieces of wire are mixed at random within this plastic cap. Not illustrated is an epoxy sealant which is applied to various parts during the assembly and provides a final seal over the exterior bolt holes and other seal openings. The sealant is also fingerprinted with randomly added lead and metal shavings, pieces of wire and other particles distinctive in size and shape. The finished seal assembly is shown from the front in slide 9 and from an angle in slide 10. The angle photograph is preferred for the fingerprint record of the seal since it provides a perspective view. Slide 11 illustrates the X-ray of the seal assembly and clearly shows the random orientation of the inclusions which identify the seal and the sealant, and facilitates detecting any damage to the seal.

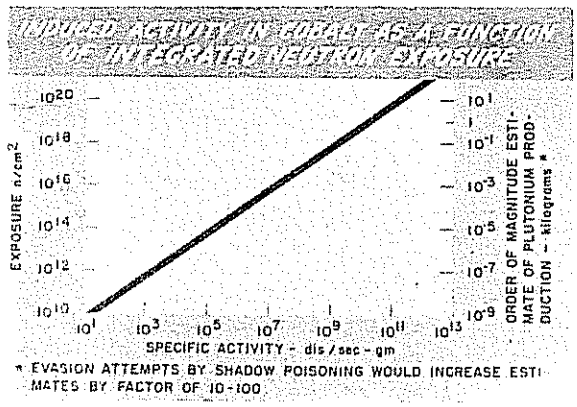
8. Slide 13 is a view of a reactor face with three seal assemblies in place. A closer view is shown in slide 14, vith the exterior safing tape visible between the seal assemblies and then disappearing from view toward the top of the reactor. The external safing tape may be used to secure vital reactor controls, thereby monitoring the operation of these components as well. The exterior safing tape differs from the tape used inside the reactor core in that it contains no cobalt in the tape core and the jacket consists of copper rather than stainless steel. Fully annealed, the copper tape is very pliable and lends itself to the various wrapping and threading operations. Essential to the use of the exterior safing tape is the joining seal, which allows the connexion of tape ends and other junctions, illustration of which are shown in slides 15 and 16. The joint seal is fingerprinted with inclusions in the body of the plastic piece and is sealed with the epoxy sealant.

9. Installation of a safing tape which protrudes from both ends of the tube or channel through the reactor is quite simple: a seal assembly is attached to each end of the tape. For a reactor, which because of its design permits access only to a single face, a different way to guarantee that the tape remains in the reactor had to be found. Slide 12 shows this type of reactor and presents a concept in which a control thimble is used. The host liner tube would in this instance be given a more active role. The end to be inserted into the access hole would support à jaw device which when properly installed in the monitoring location would be

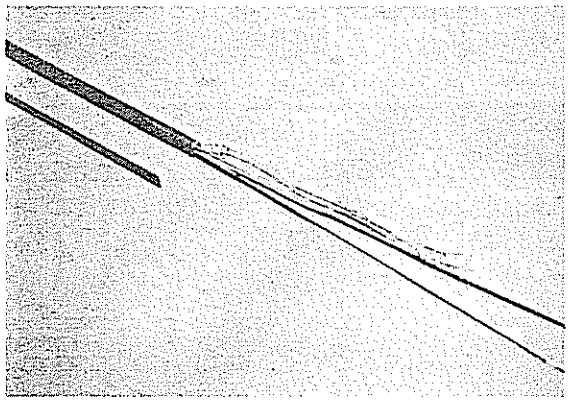
[aa] Document ENDC/176 and Corr 1 of 11 August 1966.


ACTIVATION OF SAFING WIRE PROPORTIONAL TO PLUTONIUM PRODUCTION
URANIUM FUELED CHANNELS
NEUTRON BORN FROM FISSION CAPTURED BY U-238 GENERATING Pu
SAFING WIRE COBALT CAPTURING NEUTRON-ACTIVATED TO COBALT-60 GENERATING GAMMA RAYS
U-235 FISSIONING
SECOND FISSION BY CHAIN REACTION

1


EXPOSURE n/cm²
SPECIFIC ACTIVITY - dis/sec - gm
ORDER OF MAGNITUDE ESTIMATE OF PLUTONIUM PRODUCTION - kilograms *
* EVASION ATTEMPTS BY SHADOW POISONING WOULD INCREASE ESTIMATES BY FACTOR OF 10-100

2



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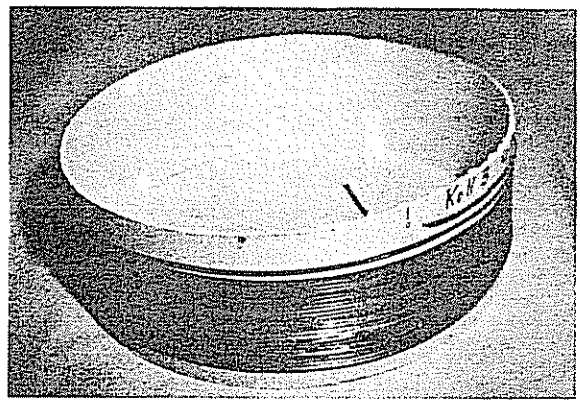

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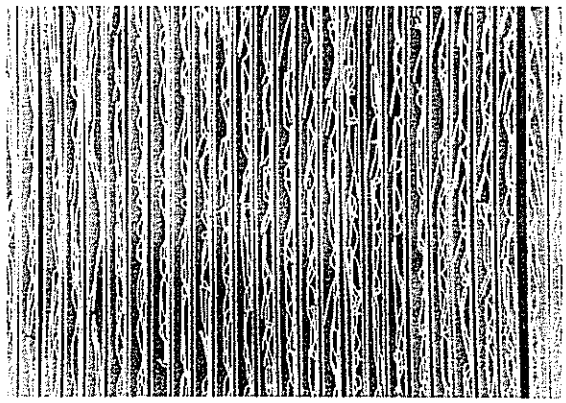

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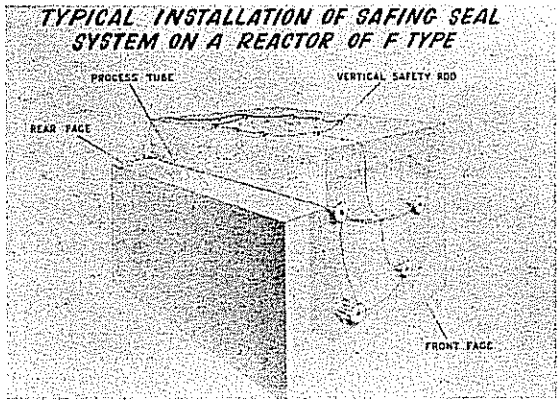
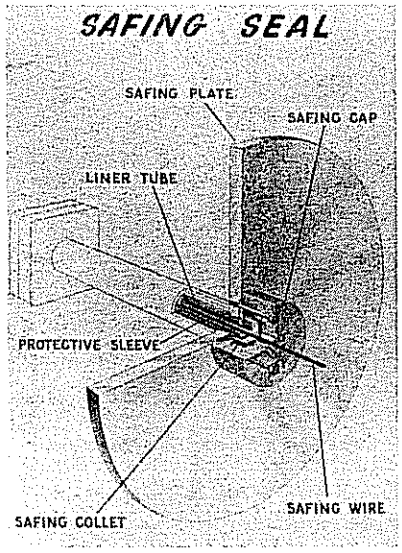
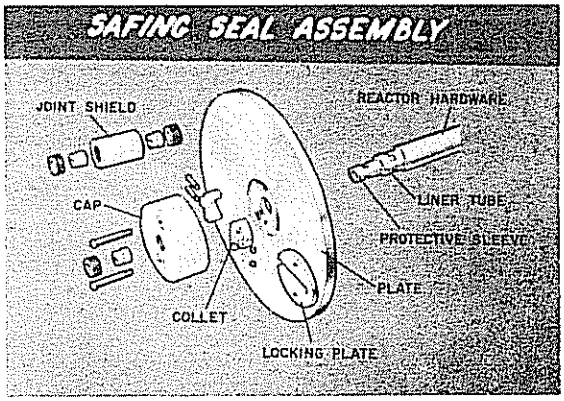

TYPICAL INSTALLATION OF SAFING SEAL SYSTEM ON A REACTOR OF F TYPE
PROCESS TUBE
VERTICAL SAFETY ROD
REAR FACE
FRONT FACE

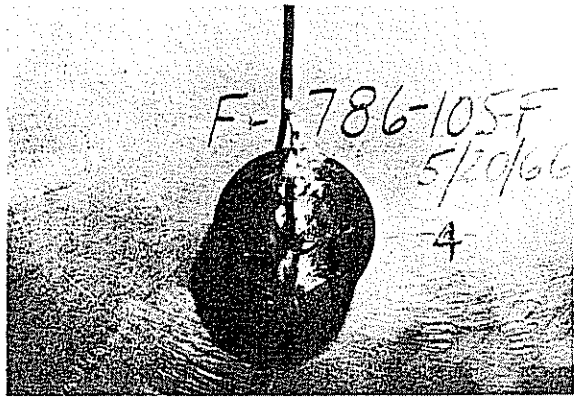
6


SAFING SEAL
SAFING PLATE
SAFING CAP
LINER TUBE
PROTECTIVE SLEEVE
SAFING COLLET
SAFING WIRE

7


SAFING SEAL ASSEMBLY
JOINT SHIELD
REACTOR HARDWARE
CAP
LINER TUBE
PROTECTIVE SLEEVE
PLATE
COLLET
LOCKING PLATE

8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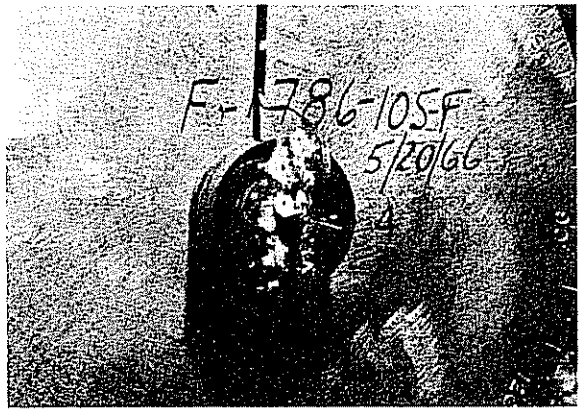
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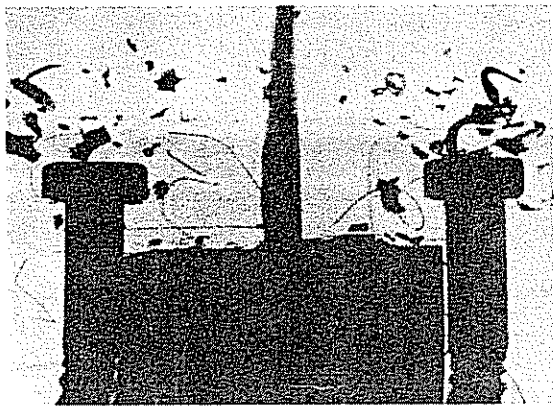

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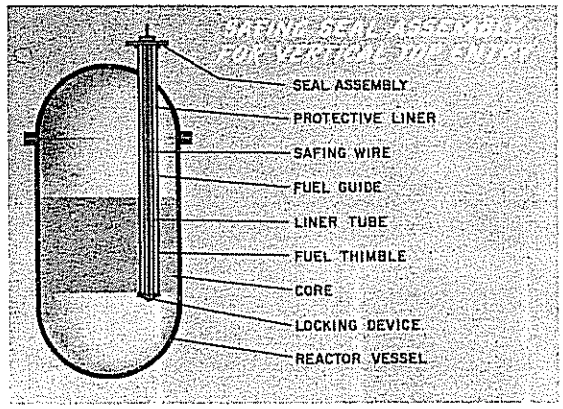

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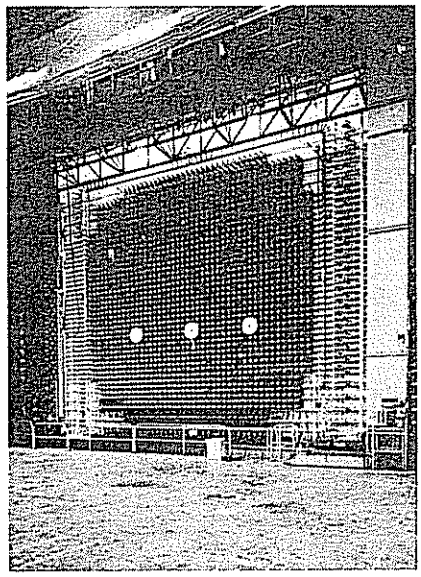

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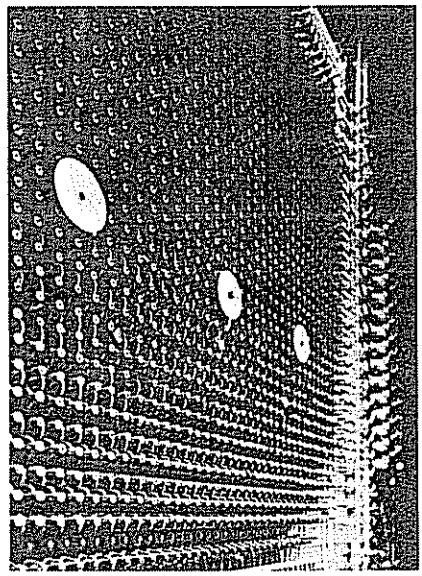

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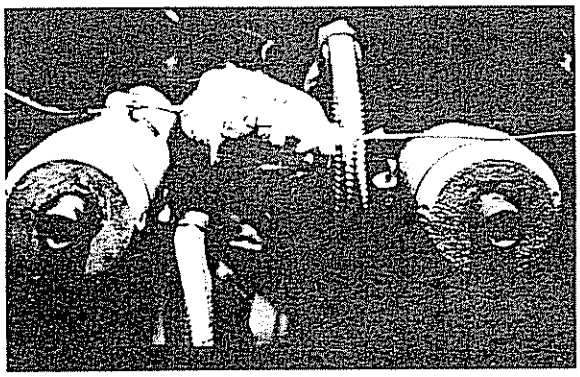

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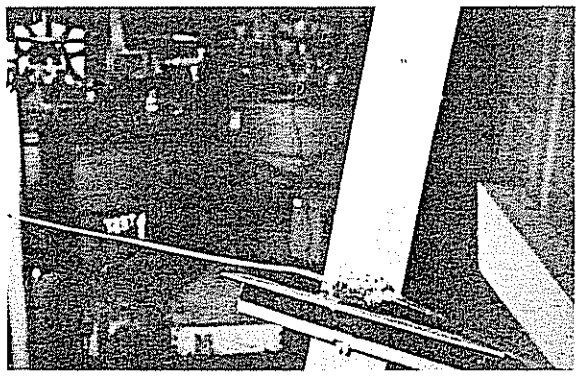

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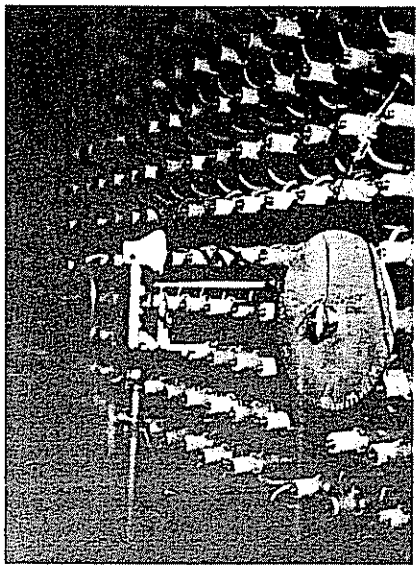

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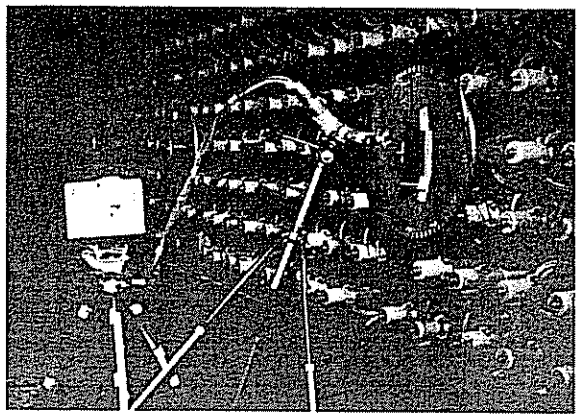

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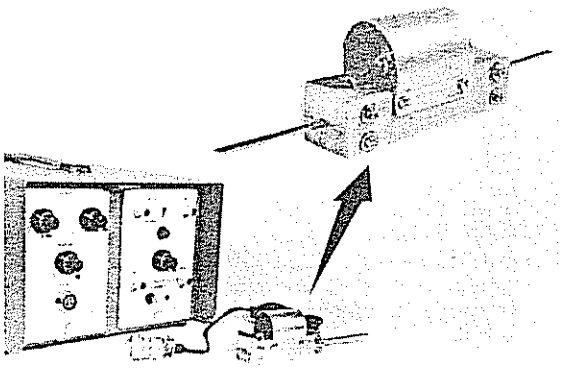

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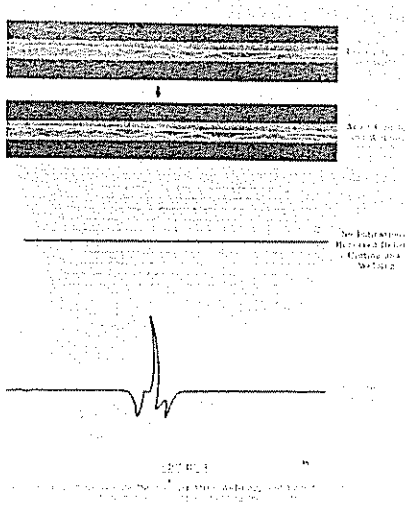

20

actuated by the safing tape attached to the jaws to force them to spread and engage in a suitable opening, or aperture, in the reactor structure. The seal assembly would again protect the safing tape to prevent release of the jaws and removal of the monitoring system.

10. It is expected that a team composed of four competent members, fully familiar with the procedures, will be able to complete a safing installation and record the necessary photographic and X-ray fingerprints in a period of two days to a week. The team would complete indexing and filing of the information taken during the safing installation upon return to their home base. The periodic inspection will probably require a similar period of time, two days, if the inspection proves routine and no major interpretive problems occur.

11. The method by which the team records a seal installation is illustrated on slide 17. This photograph shows the camera in position to record a perspective view of the seal. The adjustable arm attached to the safing plate allows an exact positioning of the camera, which is critical for the subsequent photographs to be taken on follow-up inspections.

12. Supplementing the normal photographs is the X-ray picture. Slide 18 illustrates the X-ray tube positioned to X-ray the seal from the side. The portability of the equipment makes it easy to get at various reactor seals.

13. Supplementing the photographic and X-ray equipment is an eddy current probe and recording device which can be utilized to supplement the remaining system with a different inspection tool. The team may on the initial installation make a record of various sections of the safing tape for future comparisons. Slide 19 shows the equipment, and slide 20 illustrates the result of a test performed with this equipment. In the test, a sample of safing tape was X-rayed and checked with the eddy current probe. The line drawn by the eddy current sensor has hardly a ripple in it. The piece of tape was then carefully cut and rejoined by butt welding. The joint was difficult to discern visually. Inspection of the X-ray, however, shows a considerable displacement of the tantalum wire, evidently occurring when the aluminum was partially melted. When the welded section of tape passes through the eddy current probe, it produced a very sharp and detectable signal. This sensitive behaviour has shown up consistently in a number of tests.

14. The reliability of the system depends on the inspection procedure by which the seal assemblies and other safing components are inspected. The inspection team members would carefully review the photographs and X-rays taken on each visit and compare them with the previously taken record or file copies. The team would utilize overlay techniques to compare photographs and X-ray prints. Projected on the screen are two pictures taken on Polaroid transparencies. In perfect overlay they look like one picture. As one slide is moved in relation to the other, the corresponding similarities stand out for comparison. A similar technique is shown with X-ray prints in overlay and the patterns are seen to compare directly.

15. With the field equipment required by the team being easily portable, any view of a seal and any section of the safing tape can be recorded for file information. Subsequent to the initial inspection of the safing installation, the team can select at random one or more of the safing tapes to be removed from the reactor and monitored for neutron activation. The seal is broken off and the collet released. The tape is then withdrawn from the tube liner with a team member carefully monitoring for radio-activity. The tape can then be carefully inspected for any evidence of tampering. The removed tapes will be replaced in the same liner or installed in a new location at the discretion of the inspection team. The replacement safing tape will be sealed and recorded as described earlier.

16. The presentation which I have made today is, at best, only a brief summary of the concept of the passive safing seal. A complete systems manual has been prepared which fully details the safing concept, materials, their application, and the organization and operation of the international inspection team. These manuals were prepared after the initial development phase was completed and are quite comprehensive. The contents include the scope and intent of the monitoring seal, the nuclear physics involved, a proposed inspection team organization, the procurement specifications of the safing tape and safing seal, and the composition of the inspection team's field equipment. The manual additionally describes installation techniques, photographic and X-ray inspection methods, and the use of other aids, such as the eddy current device to insure backup of the other procedures. The manual will be of considerable assistance to anyone interested in more detail than can be covered in this particular presentation.

17. My main concern is that I have conveyed to you a clear picture of how the system functions and the merits of our approach. I will be happy to entertain any questions at this time.

O

Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic: joint memorandum on a comprehensive test ban treaty [bb]

[*Original text: English*]

1. Pursuing their efforts of long standing to obtain a cessation of all nuclear weapon tests the delegations of Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic on 15 September 1965, presented a joint memorandum on a comprehensive test ban treaty to the Eighteen-Nation Committee on Disarmament.[cc]

2. The General Assembly, on 3 December 1965, adopted resolution 2032 (XX) on the urgent need for suspension of nuclear and thermonuclear tests.

3. In this resolution the General Assembly noted with satisfaction the joint memorandum submitted by the eight delegations. It expressed its conviction that agreement in regard to taking this further step towards nuclear disarmament would be facilitated, *inter alia*, by the important improvement made in detection and identification techniques. In its operative part the resolution urged that all nuclear weapon tests be suspended. It called upon all countries to respect the spirit and provisions of the Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water. It finally requested the Conference of the Eighteen-Nation Committee on Disarmament to continue with a sense of urgency its work on a comprehensive test ban treaty and on arrangements to ban effectively all nuclear weapon tests in all environments, taking into account the improved possibilities for international co-operation in the field of seismic detection, and to report to the General Assembly.

4. The eight delegations are greatly concerned by the fact that all States have not yet adhered to the partial test ban Treaty, that all nuclear weapon tests have not been suspended and that nuclear tests in the atmosphere and underground are continuing. They trust that the partial test ban Treaty will be adhered to and complied with universally. They have been deeply impressed by the dangers of the continued testing of nuclear weapons in the atmosphere and by the risks inherent in the continued nuclear weapon testing underground, with the resulting development and sophistication of nuclear weapons. They observe with the greatest apprehension that such a development is

[bb] Document ENDC/177 of 17 August 1966.

[cc] See *Official Records of the Disarmament Commission, Supplement for January to December 1965*, document DC/227, annex I, sect. F.

imparting a renewed impetus to the arms race, bringing about unforseeable consequences in regard to imbalance and mistrust in the relationship between States and causing immense and increasing diversion of human and material resources for purposes of war.

5. The eight delegations stress their strong opinion that a treaty banning underground nuclear weapon tests would in itself constitute an effective measure to prevent the proliferation of nuclear weapons. Such a treaty, supplementing the prohibitions of the partial test ban Treaty, would make practically impossible for a very long time the development of nuclear weapons in non-nuclear-weapon countries, as well as inhibit the further sophistication of nuclear weapons.

6. The eight delegations, therefore, view with utmost regret that it has not so far been possible to reach agreement on a comprehensive test ban treaty, which is in the interest of the entire international community.

7. The eight delegations are conscious of the fact that differences between the nuclear-weapon Powers as to the means of verifying the observance of such a treaty have been an important obstacle to its realization.

8. For their part, the eight delegations have made sincere efforts, individually offering various ideas and suggestions with a view to facilitating an agreement on the banning of underground tests. Among these suggestions are:

(*a*) the idea that underground tests above a certain threshold should be banned by way of a treaty, while, pending the conclusion of a comprehensive treaty, all other underground tests should be suspended;

(*b*) the improvement, through international co-operation between national institutions, of the seismic data generally available, so as to create a better scientific basis for the evaluation of seismic events;

(*c*) the idea of " verification by challenge ", implying a system whereby a party suspected of underground nuclear weapon testing should find it in its interest to provide all available reassuring information, including possibly an invitation for inspection; this system to be related to rules for a possible withdrawal from the treaty if explanations, forthcoming after formal allegations have been made, are not found satisfactory;

(*d*) the idea that, in case on-site inspections were agreed upon, a list of impartial inspectors, deposited with the Secretary-General of the United Nations, might constitute a useful instrument;

(*e*) the idea that an impartial body of scientists, recruited on a personal basis from neutral countries, should be asked to give their opinion on the general problem of identification of underground tests.

9. The eight delegations believe that the nuclear-weapon Powers should explore the possibility of adopting these suggestions so that a comprehensive test ban treaty is concluded early. Pending the conclusion of such a treaty, they reaffirm their strong demand that States responsible for nuclear-weapon tests take immediate steps for their discontinuance.

P

Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic: joint memorandum on non-proliferation of nuclear weapons [dd]

[*Original text: English*]

1. Presenting their basic approach to the question of non-proliferation of nuclear weapons, the delegations of Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic on 15 September 1965 submitted a joint memorandum to the Eighteen-Nation Committee on Disarmament [ee].

2. The General Assembly of the United Nations, on 19 November 1965, adopted resolution 2028 (XX) on non-proliferation of nuclear weapons by an overwhelming majority.

3. In his resolution the General Assembly noted with satisfaction the efforts of the eight delegations to achieve the solution of the problem as contained in their joint memorandum. It called upon the Conference of the Eighteen-Nation Committee on Disarmament to negotiate an international treaty to prevent the proliferation of nuclear weapons, based on the following main principles:

(*a*) The treaty should be void of any loop-holes which might permit nuclear or non-nuclear Powers to proliferate, directly or indirectly, nuclear weapons in any form;

(*b*) The treaty should embody an acceptable balance of mutual responsibilities and obligations of the nuclear and non-nuclear Powers;

(*c*) The treaty should be a step towards the achievement of general and complete disarmament and, more particularly, nuclear disarmament;

(*d*) There should be acceptable and workable provisions to ensure the effectiveness of the treaty; and

(*e*) Nothing in the treaty should adversely affect the right of any group of States to conclude regional treaties in order to ensure the total absence of nuclear weapons in their respective territories.

4. The eight delegations note with satisfaction that during the discussions which have since taken place in the Eighteen-Nation Committee on Disarmament, mainly on the draft treaties presented by the United States [ff] and the Soviet Union [gg], the above mentioned principles have received further substantial support, although they recognize that the two draft treaties were submitted before the adoption of resolution 2028 (XX) and, therefore, could not pay full attention to the principles laid down in it.

5. The eight delegations regret that it has not so far been possible to arrive at an agreement on a treaty acceptable to all concerned. They are deeply conscious of the danger inherent in a situation without an agreement that prevents proliferation of nuclear weapons. They view with apprehension the possibility that such a situation may lead not only to an increase of nuclear arsenals and to a spread of nuclear weapons over the world, but also to an increase in the number of nuclear weapon Powers, thus aggravating the tensions between States and the risk of nuclear war.

6. The eight delegations are aware that a main obstacle to an agreement has so far been constituted by differences concerning nuclear armaments within alliances, a problem mainly discussed between the major Powers and their allies.

7. The eight delegations for their part have made efforts to analyse the problems involved in a treaty to prevent the proliferation of nuclear weapons, based on the principles given by the United Nations General Assembly in paragraph 2 of resolution 2028 (XX). They wish to sum up their considerations as follows:

8. The eight delegations take principle (*a*) for granted in its requirement that the treaty should leave no loop-holes which would permit either the nuclear weapon Powers or the non-

[dd] Document ENDC/178 of 19 August 1966.

[ee] See *Official Records of the Disarmament Commission, Supplement for January to December 1965*, document DC/227, annex I, sect. E.

[ff] *Ibid*, sect. A; see also amendments in sect. K above.

[gg] See *Official Records of the General Assembly, Twentieth Session, Annexes*, agenda item 106, document A/5976.

nuclear weapon Powers to take any steps which could lead to proliferation of nuclear weapons in any form. They wish to draw attention to the usefulness of clearly defined terms in order to prevent any misunderstanding or contradictory interpretation now or in the future.

9. The eight delegations consider the application of the principles (*b*) and (*c*) to be of importance to all countries but particularly to non-nuclear weapon countries which, through a treaty on non-proliferation, will have to refrain from the acquisition of such weapons.

10. Principle (*c*) stresses that the treaty should be an integral part of the process of disarmament. As pointed out in the earlier memorandum of the eight delegations, it should be a step towards general and complete disarmament and, more particularly, towards nuclear disarmament.

11. Principle (*b*) says that the acceptable obligations and responsibilites to be assumed by the nuclear and non-nuclear weapon Powers should be mutual and balanced, and should be embodied in the treaty.

12. The eight delegations reaffirm their conviction, stated in their earlier memorandum, that the treaty should be coupled with or followed by tangible steps to halt the nuclear arms race and to limit, reduce and eliminate the stocks of nuclear weapons and the means of their delivery.

13. The eight delegations have individually put forward a number of suggestions as to such tangible steps, including a comprehensive ban on nuclear weapon testing, a complete cessation of production of fissionable material for weapon purposes, both in themselves effective non-proliferation measures, a freeze and a gradual reduction of the stocks of nuclear weapons and the means of their delivery, the banning of the use of nuclear weapons and assurance of the security of non-nuclear weapon States. Such different steps could be embodied in a treaty as part of its provisions or as declaration of intention.

14. Principle (*d*) requires that there should be workable provisions to ensure the effectiveness of the treaty. The eight delegations consider that such provisions should guarantee compliance with the obligations of the treaty. They, furthermore, believe that an essential provision to ensure the effectiveness of the treaty, not least in the context of the undertakings on further steps towards disarmament mentioned in the preceding paragraphs, would be that of making the treaty subject to periodic reviews.

15. The eight delegations find principle (*e*) of great interest to countries in some regions where it is possible to reach agreement on a treaty on denuclearization, which is in itself a measure of non-proliferation. They trust that there will be no difficulty in embodying a provision corresponding to this principle in the text of a treaty on non-proliferation.

16. The eight delegations further trust that in connection with an agreement on non-proliferation of nuclear weapons, intentions be explicitly stated that assistance to developing countries should be increased in order to help accelerate their programmes of development of atomic energy for peaceful purposes. The eight delegations also express the hope that adequate steps will be taken to envisage channelling important resources freed by measures of disarmament, to the social and economic development of countries hitherto less developed.

17. In the light of this analysis, the delegations of Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic confirm their belief that it is possible and indeed urgent to negotiate a treaty which reflects the mandate given by the United Nations General Assembly in its resolution 2028 (XX) and which is acceptable to all concerned and satisfactory to the international community.

Q

Italy: memorandum concerning the draft treaties of the United States and the Soviet Union on non-proliferation [hh]

[*Original text: English*]

1. The Italian delegation, desiring to contribute to the urgent elaboration of a treaty on non-proliferation on the basis of the American draft treaty and taking into consideration the Soviet draft treaty, expresses the opinion, already stated in the debates of the Eighteen-Nation Committee on Disarmament, that an attentive and detailed comparison of both drafts would be extremely useful and lead to concrete results. It believes that such a study, which could be based on document ENDC/175, introduced by the Canadian delegation, would stress important similarities on many parts of the language and of the spirit of both draft treaties, namely *inter alia*:

(*a*) The preamble;

(*b*) Articles 1 and 2 as far as they concern the interdiction of the manufacture of nuclear weapons and the interdiction of assistance in the manufacture of such weapons;

(*c*) Articles 5 and 6 concerning the entry into force of the treaty and the withdrawal from the treaty.

2. In the view of the Italian delegation acceptable compromises in treaty language could easily and rapidly be worked out on the previous points which are not of minor importance. These agreements, although not including the basic question of the " control " of nuclear weapons, would constitute a first step of great significance and facilitate the conclusion of the treaty of non-proliferation.

3. The Italian delegation, which has repeatedly proposed such a study during the present session, takes the liberty to draw again the attention of the Committee to this matter, and hopes that the work which is suggested would be undertaken as soon as possible, in order to pave the way to a speedy conclusion of the treaty of non-proliferation.

R

Ethiopia : memorandum concerning an approach to the realization of United Nations resolutions on banning of nuclear weapons, de-nuclearization of Africa and a world conference on disarmament [ii]

[*Original text: English*]

1. In view of the unimpeded progress of underground testing and the proliferation of nuclear testing by non-adherents to the partial test ban Treaty, the Ethiopian delegation, which represents one of the non-aligned States which sponsored the banning of nuclear weapons and declared themselves in favour of the denuclearization of Africa at the Summit Conference of Independant African States, held at Addis Abada from 22 to 25 May 1963, feels an increasingly heavy burden of responsibility to see that certain measures of collective security are guaranteed and commonly arrived at by the international community. At the Summit Conference, the African Heads of States, unanimously convinced of the imperious and urgent necessity of co-ordinating and intensifying their efforts to contribute to the achievement of a realistic disarmament programme through the signing by all the States concerned of a treaty of general complete disarmament under strict and effective international control, declared their readiness for a denuclearized zone in Africa.

2. In our intervention on 22 February 1966 we stated " that certain remnants of colonialism and racial prejudice may bring

[hh] Document ENDC/179 of 20 August 1966.
[ii] Document ENDC/180 of 22 August 1966.

the nuclear danger to Africa, and for this reason we feel that it is the urgent task of this Committee to come to terms with the perilous world of rockets in which we live " (ENDC/PV.242). Since then the conflicts in Africa and Asia have become increasingly bitter. Other delegations have asked for international security measures in their regions: the delegation of Burma (ENDC/PV.250), the delegation of Nigeria (ENDC/PV.235) and the delegation of the United Arab Republic (ENDC/PV.235).

3. History recalls that weapons of mass destruction were used in international wars not only against the principal belligerents of the war, but also against defenceless peoples and territories; it will be recalled that poison gas was not used in the last war by the major Powers on each other, but by the Fascist régime on the defenceless people of Ethiopia. It would seem, therefore, that a move in the direction of banning the use of weapons of mass destruction against non-nuclear weapon countries would be a step towards banning nuclear warfare and the control of the arms race.

4. It has been recorded that since the year 650 B.C. there have been more than 1600 known arms races — and only one in a hundred of these arms build-ups did not end in a war. The arms race of today is furthermore of staggering magnitude — nuclear warheads with a capacity to kill 300 million in one hour are piled up to destroy mankind. Ubiquitous Polaris missiles, one of which can carry explosives equivalent to all the bombs dropped by all sides in the whole of World War II, have made the danger imminent to all regions — especially in the Far and Middle East. We cannot help but recall that the last two world wars started in regions such as Sarajevo, Manchuria and Ethiopia.

5. The General Assembly of the United Nations has given serious consideration to this matter in various resolutions, lately in resolution 1653 (XVI). The Secretary-General, furthermore, in the final passage of his letter to the Conference (ENDC/161), has transmitted the decision of the General Assembly, at its 1388th meeting on 3rd December 1965, to refer item 29 (Question of convening a conference for the purpose of signing a convention on the prohibition of the use of nuclear and thermonuclear weapons) for further study.

6. The Secretary-General has also sent to this Conference for its orientation the General Assembly resolution on the question of convening a world disarmament conference (resolution 2030 (XX) and the resolution welcoming the denuclearization of Africa (resolution 2033 (XX).

7. Ethiopian delegation, after studying resolution 2030 (XX) mentioned above, had hoped that when a world disarmament conference was held, the banning of the use of nuclear weapons would also be untertaken at such a conference. For this reason, the Ethiopian delegation, both in New York and at Geneva, have been anticipating results from the negotiations about the conference, which to date have not been forthcoming.

8. However, the response to the declaration for a denuclearized Africa by means of an international treaty under the auspices of the United Nations, as stated by the Assembly of Heads of State and Government of the Organization of African Unity in July 1964, has, in the view of the Ethiopian delegation, been most encouraging. This declaration was endorsed on 10 October 1964 by the Second Conference of Heads of State or Government of Non-Aligned Countries held at Cairo from 5 to 10 October 1964. The messages that have been received by the Conference from the President of the United States (ENDC/165) and the Chairman of the Council of Ministers of the Soviet Union (ENDC/167), offering respectively to protect from nuclear attack or threat and not to use nuclear weapons on denuclearized zones, have been a great stimulus for the denuclearization of the world by regions. It is for this purpose that our August Sovereign Haile Selassie I acknowledged the initiative for peace and proposed an international agreement under the auspices of the United Nations (ENDC/171) in accordance with the declaration of the Assembly of Heads of State and Government of the Organization of African Unity of 21 July 1964.

9. The Ethiopian delegations spare no effort to explore all avenues for peace. As early as 1962 our representative, Mr. Alemayehou, was saying that " we urge the nuclear Powers to persist in their efforts to reach agreement at least on partial measures " (ENDC/PV.78). The Romanian delegation has also urged a step-by-step approach towards nuclear banning (ENDC/PV.239). Other delegations have acknowledged the necessary connexion between the declaration of denuclearized zones and the responsibilities of the nuclear Powers to respect them, as expressed in General Assembly resolution 2033 (XX). The Ethiopian delegation regretfully notes, however, that if we fail to make the resolutions of the United Nations effective, they will increasingly cease to be of any value. It is to this danger that we referred when we declared it " our duty to bridge the gap between man's modern nuclear dilemma and his inadequate organization for international control and enforcement of any agreement we may reach " (ENC/PV.242). The hope of providing the power needs for seven years of all the neutral countries represented here with only 100 kilograms of nuclear power, in what has been described as the dawn of a nuclear age, is still in the distance if we canot first organize an " emergency fire brigade " in case of a nuclear outbreak.

10. It has seemed to the Ethiopian delegation during our deliberations of last year that the denuclearization of regions which are already nuclearized is handicapped, firstly, because confidence has not yet been established for the inspection of denuclearization operations, and secondly, by leaving an alliance without membership in any other collective security system. This has been the case, particulary in central Europe, where groupings of major Powers face a confrontation in divided territory of States not members of the United Nations. It would seem, therefore, as a strategy of peace, that a great deal of constructive work could be in areas which now offer possibilities of negotiation for regional security. The Ethiopian delegation still believes that today more than ever the adage " peace is indivisible " holds true. Non-nuclear weapon States cannot feel secure if the nuclear Powers are not bound by international agreement, as in Asia, and nuclear Powers cannot feel secure either if territories can suddenly become nuclear ports as in Cuba. There is, however, the urgent necessity for an international agreement for the security of denuclearized regions which are ready for collective security under the principles and auspices of the United Nations.

11. The Ethiopian delegation, after studying the prospects of negotiating such an agreement, have considered that the following criteria would constitute the basis for such an agreement :

(*a*) The use of nuclear weapons in general against denuclearized territories of regions should be banned, as a first step towards the banning of nuclear and thermonuclear weapons and towards general and complete disarmament.

(*b*) That non-nuclear weapon countries, where appropriate and feasible, should denuclearize their territories and/or regions, according to the resolutions of the General Assembly, such as resolution 2030 (XX).

(*c*) That nuclear weapon countries should jointly or severally recognize their responsibility to come to appropriate Guarantee Agreement on the basis of the considerations mentioned in sub-paragraphs (*a*) and (*b*) and above.

(*d*) That such agreements should be endorsed by the United Nations and operated through a body of the United Nations under the principles of the Charter.

(*e*) Any breach of such agreements should be verified by a panel of impartial observers nominated by the United Nations from parties concerned, and names registered with the Secretary-

General of the United Nations, facilities for detection and observation being provided for such a panel by all concerned.

(*f*) That the denuclearization of territories or regions should not deter, or be an impediment towards the utilization of nuclear energy for peaceful purposes under International Atomic Energy Agency safeguards, or any other United Nations organization adequate for the purpose with objective and non-discriminatory criteria.

(*g*) That in the absence of agreement to halt the nuclear arms race or to ban nuclear arms in all regions, the urgency for all non-nuclear weapon States who have declared for denuclearization to press for an agreement of an international treaty under United Nations auspices in settlement of this impending crisis to ensure their security be recognized.

12. For the above considerations, and for other considerations that delegations may well add for the cause of international security, the Ethiopian delegation appeals for a resolution of the General Assembly which gives particular attention to the reduction of the regions of tension in the world, proceeding from tension areas which have no international protection, and as declared by the Assembly of Heads of State and Government of the organization of African Unity on 21 July 1964, are willing to come to an international agreement under the auspices and effective operation of the United Nations.

13. In reviewing past efforts in this direction we are happy to note that it was President Truman who expressed the hope, Atomic Energy Commission, that nuclear weapons should be agreed upon which would make it possible for all nations to renounce the use of atomic energy for military purposes. This was followed, on 14 June 1946, by a proposal made by Mr. Baruch, United States representative at the United Nations Atomic Energy Commission, that nuclear weapon should be submitted to an authority [jj]. The Ethiopian delegation, it will be remembered, sponsored the resolution against the use of nuclear and thermonuclear weapons at the sixteenth session of the General Assembly. The delegation of the Soviet Union has repeatedly called for an effective agreement on this issue.

14. By 17 October 1963, the world had attained to having a United Nations General Assembly resolution banning nuclear weapons in the region of outer space (resolution 1884 (XVIII)). Ethiopian delegation recalls the basic approach of the Soviet Government in recognizing the faith that the non-nuclear weapon States have put in the commitments to the principles of the United Nations, and their increasing role and responsibility in this organization. It welcomes the joint statement by the United States and the USSR of 20 September 1961 [kk] which foresees the necessity of " an International Disarmament Organization, including all parties to the agreement should be created within the framework of the United Nations ".

15. The Ethiopian delegation, like other delegations, has declared its support for the resolution of the United Nations calling for a world conference on disarmament (2030 (XX); in view of certain declarations, however, we recognize the obstacles for convening such a conference in the immediate future, with the participation of all nuclear countries. None the less, we do not believe that this situation should veto progress towards collective security by initial control of nuclear weapons, in regions where it would be possible and necessary today to establish the required disarmament organization concurrently with an agreement to ban nuclear weapons in denuclearized zones, as a step towards complete and general disarmament.

16. We therefore ask all nations who out of the destruction of the past world wars, have built the United Nations by their combined pledge for the peace and justice of mankind, to spare no efforts to take the steps necessary for collective security. The Ethiopian delegation believes that African nations have of the United Nations, and by their declaration on the denuclearization of Africa through an international agreement to be concluded under United Nations auspices.

[jj] See *Official Records of the Atomic Energy Commission, First Year, No 1, 1st meeting*, pp 4-14.

[kk] See *Official Records of the General Assembly, Sixteenth Session, Annexes*, agenda item 19, document A/4879, para. 6.

S

United States of America: working paper on determination of the location of seismic events [ll]

[*Original : English*]

I. *Location of epicenters*

1. The epicenter of a seismic event is the point on the surface of the earth vertically above the source, or focus, of the first seismic signals. The location of an epicenter is determined by using arrival times of the seismic signals at several stations to calculate the distance between each station and the epicenter.

2. In general the accuracy with which the location of a seismic event can be determined depends upon the number, quality and location of stations which detect it and on the properties of the earth in the region of the source. The larger the number of detecting stations, the higher their quality and the better their azimuthal (i.e. directional) distribution with respect to the event, the greater will be the accuracy of the location determination.

3. For homogenous source regions, where the seismic waves propagate away from the source with the same velocity in all directions, and assuming normal scatter in arrival time data, it is possible to determine the size of the area in which one can have confidence that the event occurred. For example, if an event is detected by twenty-five stations well distributed about the event there is a greater than 90 per cent probability that it occurred within a 500 square kilometer elliptical area centered upon the calculated epicenter. If it is detected by only sixteen stations the probability drops to 75 per cent.

II. *Bias*

4. For areas where the velocity of the seismic waves propagating away from the source depends upon the direction in which the wave travels, an effect known as " travel time bias " exists. If this is not corrected for, there results an error in locating an event even when it is detected by many high quality stations. These biases are believed most likely to be found in island areas such as the Aleutian-Kuriles-Kamchatka region and least likely to exist in geologically relatively uniform and stable regions such as the area in the United States east of the Rocky Mountains or in the northen part of the USSR. In order to bring the location accuracy back to what might be achieved in the absence of bias it is necessary to conduct certain experiments in the specific area of concern to determine the manner in which the velocity changes as a function of direction about the source.

5. There are four methods by which the effect of travel time bias can be reduced.

(*a*) *Calibration of source area* : Calibration of areas in which biases are expected can be done by using signals from known source locations in the area to develop corrections to the standard teleseismic travel time tables. Known source locations can be achieved either by detonating large explosions within the area

[ll] Document ENDC/182 of 23 August 1966.

of interest, or by setting up within the area a number of seismograph stations to locate with high accuracy any events which occur there.

(*b*) *Self calibration* : Another method of eliminating bias is to make use of a large earthquake or explosion in the area (greater than magnitude 6), where through sophisticated analysis techniques it is possible to remove most of the bias effects solely on the basis of data collected at considerable distances from the event; i.e. without knowledge of the location of the specific event.

(*c*) " *Master events* " : This third method is not independent of the first two. It requires that the true location of a large event be established. Once this is done, the large event can be used as a reference of " master " event with respect to which the location of smaller events occuring near it can be established with considerable accuracy.

(*d*) *Permanent local network* : The fourth method consists of setting up a permanent local network of seismograph stations in regions where biases exist. For example, a number of ocean bottom seismographs in the Aleutian-Kurile-Kamchatka region can enable quite precise location of events which occur there.

III. *Calibration of the Aleutian-Kurile-Kamchatka region*

6. The first two methods of removing bias, i.e. the use of sources with known locations and self-calibration using large events, have been applied successfully in the Longshot experiment where an 80-kiloton underground explosion was detonated on Amchitka Island in the Aleutian chain. Using the normal location techniques the calculated epicenter of Longshot was about 25 kilometres north of the actual event, thus demonstrating the existence of a significant bias. However, a sophisticated calculation, which can only be carried out with large events where there are very substantial quantities of data, yielded a calculated epicenter about 10 kilometres from the actual point of detonation. Since Longshot provided calibration for the Amchitka area it is now possible to determine quite accurately the location of very shallow events in that area, although the size of the calibrated area is not yet known.

7. Further experiments whose objective is to calibrate source areas are planned for the high seas off the Kurile Islands in September and October of this year using a local network of ocean bottom seismometers. In addition, development continues of the " master " event technique.

ANNEX 2

CHECK LIST OF DOCUMENTS ISSUED BY THE CONFERENCE (26 JANUARY-25 AUGUST 1966)

Verbatim records of the Conference

ENDC/PV.235-286 (27 January-25 August 1966) :
Verbatim records of the 235th to 286th meetings

Documents of the Conference

* ENDC/152/Add.1 (21 March 1966) :
United States of America : amendments to the United States draft treaty to prevent the spread of nuclear weapons

* ENDC/161 (27 January 1966) :
Letter dated 14 January 1966 from the Secretary-General to the Co-Chairmen of the Conference of the Eighteen-Nation Committee on Disarmament, transmitting resolutions 2028 (XX), 2031 (XX) and 2032 (XX) of the General Assembly

* ENDC/162 (27 January 1966) :
Letter dated 14 January 1966 from the Secretary-General to the Co-Chairmen of the Conference of the Eighteen-Nation Committee on Disarmament, transmitting resolutions 2030 (XX) and 2033 (XX) of the General Assembly

* ENDC/163 (26 January 1966) :
Letter dated 26 January 1966 from the Special Representative of the Secretary-General to the Co-Chairmen of the Conference of the Eighteen-Nation Committee on Disarmament, transmitting the texte of a letter to the Secretary-General from His Holiness Pope Paul VI

ENDC/164 (27 January 1966) :
Union of Soviet Socialist Republics : letter dated 24 September 1965 from the Minister for Foreign Affairs of the USSR addressed to the President of the General Asesmbly (A/5976).

* ENDC/165 (27 January 1966) :
United States of America : message dated 27 January 1966 from President Lyndon B. Johnson to the Conference of the Eighteen-Nation Committee on Disarmament

* ENDC/166 (28 January 1966) :
United Kingdom of Great Britain and Northern Ireland : message dated 27 January 1966 from Prime Minister Harold Wilson to the Conference of the Eighteen-Nation Committee on Disarmament

* ENDC/167 (3 February 1966) :
Union of Soviet Socialist Republics: message dated 1 February 1966 from A. Kosygin, Chairman of the Council of Ministers of the USSR, to the Conference of the Eighteen-Nation Committee on Disarmament.

ENDC/168 (8 February 1966):
Union of Soviet Socialist Republics: letter dated 7 February 1966 from the representative of the Union of Soviet Socialist Republics to the Special Representative of the Secretary-General

* ENDC/169 and Corr.1 (17 February 1966):
Union of Soviet Socialist Republics: aide-mémoire dated 16 February 1966 from the Soviet Government to the Government of the United States of America

* ENDC/170 (28 February 1966):
United States of America: aide-mémoire dated 25 February 1966 from the Government of the United States in reply to the aide-mémoire dated 16 February 1966 from the Soviet Government

* ENDC/171 (1 March 1966):
Ethiopia : message from His Imperil Majesty Haile Selassie I to the Conference of the Eighteen-Nation Committee on Disarmament

* ENDC/172 (8 March 1966):
United States of America: working paper on transfer of fissionable material obtained by the destruction of nuclear weapons

ENDC/173 (5 April 1966):
Union of Soviet Socialist Republics: letter dated 2 April 1966 from the representative of the USSR to the Special Representative of the Secretary-General

* ENDC/174 (14 April 1966):
United States of America: working paper on an inspection method for verifying the status of shutdown plutonium production reactors

* ENDC/175 (5 July 1965):
Canada: prevention of the spread of nuclear weapons. Tabular comparison of the United States draft treaty to prevent the spread of nuclear weapons and the USSR draft treaty on the non-proliferation of nuclear weapons

* Printed in annex 1 to this report

* ENDC/176 and Corr.1 (11 August 1966):
United States of America: description of a monitoring system for shutdown nuclear reactors

* ENDC/177 (17 August 1966):
Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic : joint memorandum on a comprehensive test ban treaty

* ENDC/178 (19 August 1966):
Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic : joint memorandum on non-proliferation of nuclear weapons

* ENDC/179 (20 August 1966):
Italy: memorandum concerning the draft treaties of the United States and the Soviet Union on non-proliferation

* ENDC/180 (22 August 1966):
Ethiopia: memorandum concerning an approach to the realization of United Nations resolutions on banning of nuclear weapons, de-nuclearization of Africa and a world conference on disarmament

ENDC/181 (22 August 1966):
Draft report to the Disarmament Commission and the General Assembly (recommended by the Co-Chairmen)

* ENDC/182 (23 August 1966):
United States of America : working paper on determination of the location of seismic events

ENDC/183 (24 August 1966):
Communication dated 29 July from the permanent delegation of Venezuela to the Office of the United Nations at Geneva and the international organizations, transmitting a resolution form the Chamber of Deputies of the Republic of Venezuela adopted on 6 July 1966

Documents containing information of an administrative nature

ENDC/INF.1/Rev.6 (27 January 1966); ENDC/INF.1/Rev.7 (1 March 1966); ENDC/INF.1/Rev.8 (15 April 1966) and ENDC/INF.1/Rev. 9 (14 June 1966):
Basic information for delegations on conference arrangements and documentation

ENDC/INF.2/Rev.23 (31 January 1966) and Corr.1 (3 February 1966); ENDC/INF./2Rev.24 (15 February 1966) and Corr.1 (22 February 1966) and Corr.2 (1 March 1966); ENDC/INF. 2/Rev.25 (26 March 1966) and Corr.1 (6 April 1966) and Corr.2 (14 April 1966) and Corr.3 (19 April 1966); ENDC/INF.2/ Rev.26 (17 June 1966); ENDC/INF.2/Rev. 27 (25 July 1966) and Corr.1 (29 July 1966) and Corr.2 (4 August 1966); ENDC/INF.2/Rev.28 (15 August 1966);
List of members of delegations to the Conference:

ENDC/INF.4/Add.37 (1 March 1966):
Check list of documents issued between 26 January and 28 February 1966

ENDC/INF.4/Add.38 (1 April 1966):
Check list of documents issued between 1 March and 31 March 1966

ENDC/INF.4/Add.39 (11 May 1966):
Check list of documents issued between 1 April and 10 May 1966

ENDC/INF.4/Add.40 (14 June 1966):
Check list of documents issued between 11 May and 13 June 1966

ENDC/INF.4/Add.41 (25 August 1966):
Check list of documents issued between 14 June and 25 August 1966

Non-governmental communications

ENDC/NGG/21 (1 March 1966):
List of communications received by the secretariat of the Conference from 26 January to 28 February 1966

ENDC/NGC/22 (14 July 1966):
List of communications received by the secretariat of the Conference from 1 March to 14 July 1966

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* Printed in annex 1 to this report.

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